



tanningdynamics

Give Your Salon the Professional Edge

North Carolina Edition

Steve Chaney



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By
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MODULE 1

ESTABLISHING A FOUNDATION

CHAPTER 1: The History of Tanning

Appreciating The Past

The history of tanning — “Do I really have to study this? What could it possibly have to do with my job today here and now? Will it help me clean a tanning bed faster?” Admittedly, the history of tanning is often overlooked and passed off as unimportant.

It is important though when you realize history provides insight into the direction our industry is headed today. How do you know where the industry is going if you don’t know where it has been? It may not help you clean a tanning bed faster, but it may provide some appreciation for the importance of what you are doing today. So let’s start from the beginning. The history of tanning may prove more interesting than you thought.

Since The Beginning of Time

“In the beginning, God created the heaven and the earth... And God said, Let there be light: and there was light... And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also” — excerpts from Genesis 1:1–16.

Some things in life command appreciation and respect. The sun is one of those things. Its brilliant light, heat and steady movement across the sky have drawn attention from the beginning of time until now. It’s not difficult to notice how life on earth responds to sunlight: flowers open, people and animals waken and arise; and the world itself seems to be energized with the sun’s rising presence each morning. Back then, mankind appreciated this created object so much that it became commonplace to worship it as though it were a living object.

Ancient Religion

Sun worship, or “heliolatry” as it is sometimes called, was so common in one form or another that historical remnants can be found on every major continent. The benefits and consequences of a sun worshipper’s conduct depended mostly on which country they lived in. Common beliefs of this mythology included that the sun created life, fought against darkness (i.e. evil), and was a source of knowledge and

power. While the sun has had an impact on religious practice, it has also had a clear impact on science and medicine.

Ancient Science

Take science for example. Ancient astronomy was based on observation rather than on hard data from tests. Based on today's information, we smile at some of the old scientific theory. It was around 434 B.C. that ancient astronomer Anaxagoras declared that the sun was a fiery rock, a little larger than Greece. Aristotle wrote in 350 B.C. in "On the Heavens" that Earth was the center of the universe and that the sun, moon and stars revolved around it. Nevertheless, calendars and clocks came into existence from observation of the sun's predictable movements.

Leaping Forward In Time

Copernicus eventually demonstrated mathematically how the Sun was at the center of the universe (On the Revolutions of the Heavenly Spheres, 1543). Newton later discovered a light spectrum within sunshine. Science fiction or fantasy was in full play too, as many scientists, Newton and Herschel among them, suggested that the Sun and other planets were populated with inhabitants.

Medical Uses

Most countries have relatively strict rules against making advertising claims regarding the benefits of ultraviolet light, other than the cosmetic darkening of one's skin.

Modern History

Compared to the beginning of creation until now, the last 200 years are very modern. It was in 1801 that ultraviolet light was first discovered, but no one knew anything about it back then.

Class distinctions were still being symbolized through a person's skin color. These class distinctions eventually found their way to America, where no Southern belle or Northern debutante dare go out in the sun without her parasol to protect her bleached skin.

By the mid-1800's it was becoming a more acceptable to let more light into your house and to spend a little more time outdoors. It was becoming so widely accepted that the Swiss coined the term "sun-bath" to identify the new activity.

In the late 1800's sunshine became popular in the technological field too. It never really caught on in his life time, but the first wireless phone was invented by Alexander Graham Bell in 1880. Sunlight was used to transmit the signal. It was really large, so you couldn't put it in your pocket.

Just a decade after the invention of the "photophone," Niels Ryberg Finsen

developed the very first ultraviolet light producing lamp in 1890. His work was so novel and noteworthy, it earned him the Nobel prize in 1903.

Tanning Becomes Fashionable

Indoor tanning was becoming popular, but tanning lotion wasn't even a notion yet. The first so-called tanning lotion was Noxzema® in 1914, and it wasn't even a true lotion. It was for those who overexposed, and was originally called "Dr. Bunting's Sunburn Remedy," named after the pharmacist who invented it.

Two French celebrities can be credited for turning tanning into a fashionable activity. The most well-known of these was the leading fashion designer Coco Chanel.

She frequently broke new ground in fashion. After cruising from Paris to Cannes, Coco stepped off the Duke of Wellington's yacht with a startling suntan. Chanel had apparently gotten too much sun by accident, but the press and fashion world assumed she was making another fashion statement. Prince Jean-Louis de Faucigny-Lucigne was quoted in later years as saying "I think she may have invented sunbathing."

Meanwhile back in Paris, Josephine Baker, a popular performer was taking the city by storm with her amazing talent and her naturally caramel-colored skin. These two French "idols" unintentionally changed centuries of tradition. By the 1920s, this all new fashion trend began to free women from confining clothes. Women in both Europe and America were daring to bare their skin to the sun. Tanning was now symbolizing wealth and leisure because it gave the impression that the tanner had spent a lot of money vacationing in some distant sunny place.

It may have been all the rage in the 1920s but by the 1930s this fashion rage began its decline. Some fashion magazines stated that it was okay to be tan while others began suggesting that the pale look was okay. Perhaps the downturn in the economy had its impact, but these mixed messages left people with a fashion-complex, as it were, well into the early 1940s.

Tanning Becomes Patriotic

But something happened toward the end of World War II. Many soldiers who had been stationed in the South Pacific fell in love with, and married the women of the South Sea Islands, bringing them back home to America. Many of the American women felt they needed to tan their skin in order to be as attractive as the island women that were being brought home. To foster this cosmetic catch up, the first true tanning lotion came to market in 1944 by Coppertone© to help "darken tans." But another cultural mega trend was beginning to justify this cosmetic catch up. Something about that tan in America was beginning to symbolize freedom, victory, ruggedism, individualism and patriotism. It was a matter of national pride to sport a tan.

Tanning was becoming fashionable again; and that, despite the basic sensible warnings being issued by the medical community. They were warning that it was

possible to get too much exposure and get hurt. The medical industry may have been perceived as unpatriotic had they tried to legislate indoor tanning (a non-drug mode of treatment) for any reason at the time.

Tanning as a fashion trend continued to increase through the 1950s. Home tanning units were also becoming popular, even if they were small single lamps in some kind of metal box. Many of these units put out high levels of UVB. It was common to think that the best way to tan was to get red first, then let it fade into a tan. That's still often thought to be the case today, unfortunately.

If tanning from the sun or some home-use tanning lamp were not available, a person had the option of sporting a UV-free tan. Man-Tan was the first self-tanning product to come on the market. It used DHA, the same chemical used in spray-tan solutions today, to help provide that tanned look. It just wasn't perfected back then, and a deep orange look was commonplace.

The momentum that started in the forties began to fade in the mid-sixties to mid-seventies, though it was never completely out-of-fashion.

Indoor Tanning – The New Thing

Indoor tanning was not completely new. As you know, the first UV lamp was invented in 1890. Multi-lamp tanning beds existed as early as 1912 (the first known was photographed on the Titanic). However, most tanning products were manufactured as single-lamp devices until the 1970s. In 1975, Friedrich Wolff popularized the multi-lamp system. His original intention was to see whether exposure to UV light would help increase the performance of athletes. As a side-effect he noticed his test subjects were getting some really great tans. He thought there might be a market for his multi-lamp device, so he patented the concept in 1978, and indoor tanning took Europe by storm. Later that year, tanning came to the U.S., only in a slightly different form. U.S. units typically had much higher levels of UVB output, sometimes up to 100% UVB. There were definitely some hurdles for the multi-lamp industry to overcome.

The original multi-lamp units came in a number of designs. You could buy tanning canopies and put them over a bed or a couch; then turn over half way through the session. There were also tanning couches. When a person wanted to tan, they just pulled the cushions off and the bench portion of a tanning bed would be revealed. Sometimes it was a room filled with lamps. For added effect, sand might be on the floor and a beach ball too. Home-made units abounded too. Stand up units sometimes were nothing more than aluminum foil behind some lamps and thin wire mesh in front of the lamps. If a person lost their balance, it would prove problematic for both the unit and the tanner. Sometimes that tanning device was nothing more than a converted closet. Metal panels would be on all four sides for reflectivity and four high UVB output lamps would be installed, one in each corner.

Today's units are larger, with more lamps and a number of additions no one ever dreamed of back in the 1970s and 1980s, like air conditioning provided from the building's available air conditioning, built-in stereos, aromatherapy, misting and

more. Whatever the design back then, a whole body tan was now conveniently available in a relaxing and private way. This new system sparked a mega-trend that has become a permanent part of near worldwide fashion.

Changing Times, Changing Exposure Schedules

Greater exposure times became popular. Exposure schedules existed as early as the 1940s, but weren't commonly used. They originally amounted to nothing more than a suggestion of minutes per session per day. Today, schedules in the U.S. and Canada are based on the strength of brand new tanning lamps. They include a warning label, a statement on proper positioning and of course, a schedule for building a tan. Exposure schedules determine how much time a person can tan based on skin type and recent tanning history.

We'll talk about skin typing in the next chapter, but think of skin types as skin tones for now. The darker a person's skin is naturally, the longer they should be able to tan. If a person has been tanning recently, they should also be able to tan for a little longer time.

Consider the U.S. standard for a moment. Look at the exposure schedule sample below. Do you see how it shows that a person in week one should only tan for three minutes? Week one limitations are usually pretty minimal. That's because brand new lamps have a higher UV output. Eventually those lamps settle to a fairly consistent output. Tanning lamps should be replaced no later than 70% to 80% of their rated lamp life to ensure that consistent output. The calculated time is based on 75 percent of the exposure needed to make a person's skin turn red. To prevent any possibility of overexposure, the State of Illinois mandates all new customers start out at the minimal week one sessions, even if they have a well-established base tan from another tanning salon. Iowa in a close second, places a high emphasis on the spacing of visits.

Figure 1.1 — EXPOSURE SCHEDULE EXAMPLE

SKIN TYPE	WEEK 1 1ST-3RD TREATMENTS	WEEK 2 4TH-6TH TREATMENTS	WEEK 3 7TH-10TH TREATMENTS	WEEK 4 11TH-15TH TREATMENTS	WEEKLY SUBSEQUENT TREATMENTS
II – FAIR	3 Min.	7 Min.	15 Min.	20 Min.	20 Min.
III – AVERAGE	3 Min.	7 Min.	15 Min.	20 Min.	20 Min.
IV – BROWN	3 Min.	10 Min.	15 Min.	20 Min.	20 Min.
V – DARK BROWN	3 Min.	10 Min.	15 Min.	20 Min.	20 Min.

Schedules today generally don't recommend more than three visits per week, although there are plenty of exceptions. Many states allow a person to tan up to

once every 24 hours, but some mandate the exposure schedule be followed as though it were a prescription to tan. That means if the schedule says three times a week, a person would not be allowed to tan more than once every 48 hours. That would be overdosing.

You're probably thinking, "this is pretty restrictive." It may be, if you have a customer with a well-established tan that wants to tan in an older unit with older acrylic and well-worn tanning lamps. But States with stricter policies on exposure schedules would have a difficult time making exceptions for one salon, then not for another. That would open up a whole new set of problems. Most States become concerned only when the additional time given results in sunburn.

There is still another part to exposure schedules that generally gets little, if any attention. It is the maintenance portion of the schedule. The first four weeks on the schedule are what a customer is to follow when they want to "build" a tan. The "maintenance" part of the schedule is what a person follows after their base tan has been built according to the "building" part of the schedule. The maintenance part of the schedule generally allows for two sessions per week to maintain the tan. Some only allow for one session per week.

Is there ever any room for giving a person more time in these more restrictive states? Often times there is, but it would have to be documented. For example, let's say you have a new skin type four customer who has a well-established tan from another facility. In most restrictive states, other than Illinois, you should document that the customer is starting out with a base tan. This helps the inspector understand why you started that customer out at 10 or 15 minutes when the exposure schedule clearly shows a lesser time. It's common for tanning facilities to have a client questionnaire that includes a place to be marked if the client has had recent previous exposure.

If you're living any where outside of one of these restrictive areas, you are probably heaving a sigh of relief. But exposure schedules are useful, and just some of the information that should be used when screening for proper exposure times.



Chapter One Review

1. Since the beginning of time, sunshine has only been used for tanning. **True or False?**
2. The first "tanning lamp" was developed in 1890. **True or False?**
3. Tanned skin used to be a symbol of patriotism in the U.S. **True or False?**
4. Exposure schedules determine exposure times based on skin type and recent history of skin reddening. **True or False?**
5. The maintenance portion of an exposure schedule allows for one or two sessions per week. **True or False?**

CHAPTER 2: The Basics of Skin and Skin Typing

Because skin responds to ultraviolet light exposure, it is essential that tanning equipment operators know the basics of skin. More than that, we would like to build an appreciation for skin and all of the work it has to do.

What if you were told that in recent years there had been a 70 percent increase in cosmetic procedures? Would that be enough to make you think that there might be an emerging trend that is worth looking at? How many cultural trends could you name that have experienced a 70 percent increase in anything? In reality, this increase in cosmetic procedures wasn't a noticeable 70 percent, but more like an overwhelming 700+ percent! The latest numbers show that in a bad economy the numbers are still up by over 200+ percent.

According to the American Society for Aesthetic Plastic Surgery (ASAPS), this amazing 200+ percent increase isn't even referring to surgical procedures. It is strictly referring to non-surgical procedures. That is to say, there is a heightened interest in the use of strategies, techniques and sometimes even the simple application of things from a jar, tube or bottle that will help a person's skin cosmetically. People seeking some form of cosmetic procedure are clearly are interested in looking good.

How many of the customers that come in to tan at your facility, do you suppose, are interested in looking good? Every one of them! Wouldn't it be nice to be able to show your customers how to take care of their skin while tanning so that it looks even better now, and keeps it looking good into the future? A whole separate course could be done just on the topic of skin care, but we would like to build a foundation by introducing you to the individual components of skin.

Skin is the largest organ of the human body. It's not hard to imagine when you consider that you could wrap this organ around your entire body. Skin's two outermost layers weigh approximately 10 percent of a person's total body weight. Just one square inch of skin contains 9 feet of blood vessels, 600 pain sensors, 134 yards of nerves and about 30 hairs.

Notice the layers of skin in the illustration on the next page. The illustration divides skin into three layers: epidermis, dermis and subcutaneous layers. Combined, they work together to provide a variety of functions. Skin:

- Provides a protective covering for the body against environmental insults and irritants such as harmful bacteria, molds and yeast, dirt, and various chemicals;
- Acts as a smart sensory organ. It signals your brain to sense what it touches, to sense temperature and even taste;
- Helps regulate a person's body temperature;
- Heals itself from many types of injuries;
- Works as a metabolic factory, to break down and digest nutrients that are good for skin's health and unfortunately, some pollutants and chemicals that are not as good for skin's health.

Epidermis

The epidermis is the thinnest of skin's layers and weighs approximately nine pounds on the average adult. It's a little thicker than paper, running anywhere from .04 mm on the eyelids to 1.6 mm on the palms.

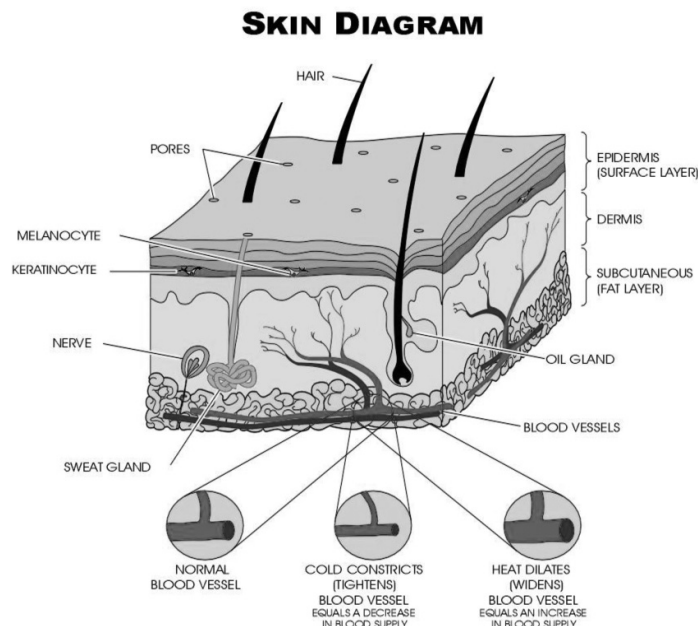


Figure 2.1

The epidermis continually renews and replaces itself about once every 28 days. That's with younger people. As a person ages, it begins to take a little longer. A senior member of society can take up to three months for their epidermis to replace itself. It's amazing to think that the body has a thin sheet of material, a wrapping if you will, that is continuously shedding; yet this is where all of the action is taking place with respect to tanning.

Tanning Cells

The epidermis has two types of tanning cells. Most people think there is just one type. The first "tanning" cell is called a **melanocyte** cell. Melanocyte cells make up about five percent of the epidermis. In response to ultraviolet light, melanocytes produce cell bodies called melanosomes. Melanosomes contain a pigment granule

called **melanin**. Melanin starts out clear to pinkish and turns brown when oxidizes and exposed to UVA. As it turns brown, it helps protect skin by reflecting, scattering and absorbing UV light. This will be discussed in greater detail when we talk about the tanning process.

The second “tanning” cell is called a **keratinocyte** cell. Keratinocytes produce a substance called keratin. Keratin is a fibrous protein that provides structure to the epidermis. Keratinocytes are pretty easy to find in life. Besides being a major component of skin, they also make up finger nails, toe nails, rhinos’ horns and horses’ hooves.

Why should it be considered as another “tanning” cell? When ultraviolet light shines on the epidermis, the production of keratinocytes and keratin is accelerated so that skin produces it faster than it can shed it. As a result of normal UV exposure, skin will thicken up to twice its normal density. This provides an extra form of protection against excessive sun exposure. During the process, keratinocytes also secrete a hormone (Alpha-Melanocyte Stimulating Hormone) that tells melanocytes to start making melanin, or to make it faster. Melanin “stains” keratin as it’s on its journey upward so that the two forms of protection work together to provide optimal protection from excessive UV exposure. Pretty neat, huh? The brain doesn’t want to be left out of the process, so its pituitary gland produces some of this hormone too to assist with tanning.

Other Cells

While they’re not part of the tanning process, skin also has two other basic cells in the epidermis: Langerhans cells and Merkel’s cells. Langerhans cells are immune system cells to help protect the body from infection that might enter through skin. Merkel’s cells provide sensory signals to the brain. They are responsible for our sense of touch and temperature.

Other Parts of Skin

Remember we mentioned earlier how melanocyte cells in skin respond to ultraviolet light? Some parts of the body have little or no melanocyte cells. Because lips and genitalia don’t have a lot of melanocyte cells tanning customers should be warned to be careful upon initial exposures to these areas. Palms and soles also have little or no melanin, but they have an extra layer of skin in the epidermis to provide additional protection.

Skin Typing Principles

We’ve covered some basics of skin components and function. We also need to cover the basics of skin typing.

This may not be the same kind of skin typing you’re thinking about. Without tanning as the context for “skin typing,” we might be discussing whether a person’s skin is oily, dry or sensitive. We might also be talking about combination skin; that is, those

who have both oily and dry skin.

The tanning industry's skin typing system is used to determine proper exposure times and to minimize a person's chances for burning. It's so helpful that many government agencies require skin typing for proper screening.

What's the proper way to skin type? The first step is to refer to the skin typing chart on the next page. This chart is widely used in the skin care field and by medical professionals. Thomas B. Fitzpatrick, MD, PhD, of Harvard Medical School, invented the first skin typing chart in 1963 (Fitzpatrick TB, Breathnach AS; Das Epidermal Melanin-Einheit System, Dermatol Wochenschr 147:481 – 489 (1963)). It had four skin types. In 1975 he modernized the chart to six skin types. It is called the "Fitzpatrick Skin Typing Chart." You will notice the chart lists six skin types. Some countries like Australia still use the original standard. This is acceptable, but we want to use the most up to date method, then take it a step further so that we can enhance your skin typing skills.

SKIN TYPE IDENTIFICATION CHART

SKIN TYPE	CHARACTERISTICS	SKIN'S RESPONSE TO UV
I	Unexposed Skin — Bright white Eyes — Blue or green Hair — Red or blonde Freckles Heritage — English, Irish, Scottish and Scandinavian	Always burns easily and severely Peels Does not tan
II	Unexposed skin — White Eyes — Blue, hazel or brown Hair — Red, blonde or brown Heritage — same as Skin Type I plus Northern European (German, Polish, etc.)	Burns easily and severely Peels Tans minimally or lightly
III	Unexposed skin — Fair Eyes — Brown Hair — Dark Heritage — Central or Southern European (Spanish, Greek, or Italian)	Burns moderately Tans average
IV	Unexposed skin — Light Brown Eyes — Dark Hair — Dark Heritage — Mediterranean, Oriental, or Hispanic	Burns minimally Tans easily and above average with each exposure Exhibits IPD (Immediate Pigment Darkening)
V	Unexposed skin — Brown	Rarely burns

	Eyes — Dark Hair — Dark Heritage — East Indian, American Indian, Asian, Hispanic, Latin American, or African American	Tans easily and substantially Always exhibits IPD
VI	Unexposed skin — Black Eyes — Dark Hair — Dark Heritage — African American or Aborigine	Rarely burns Tans easily and profusely Always exhibits IPD

Figure 2.2 — ©2008 Tanning Dynamics • 202 Von Hollen Dr., Greenville,
SC 29617

Notice that the top of the chart has three columns. The first column after the skin type number is **“Characteristics.”** Characteristics list general features that are common among broad populations. You’ll notice for example that skin type I persons generally have a northern European background. While it is not always true, those with a northern European background often have naturally red or blonde hair, blue or green eyes and freckles.

The second column after the skin type number identifies **“Skin Response to UV.”** If you cross reference this with a person’s general characteristics, you will notice that there are common responses to UV light. For example, those who share skin type I characteristics, generally share the same burning potential and inability to tan. Did you notice that skin type I persons are unable to produce a tan? Some people have skin that can only produce a burn. These persons should never be allowed to tan in your facility due to this physical disability. Spray tanning might be an appropriate alternative.

***...skin type I
persons are unable
to produce a tan.***

We’ll discuss this and the remaining skin types in greater detail in a moment, but first let’s add two important questions that can enhance your skin typing skills. These questions are: “Do you burn easily? Do you tan easily?” The answers to these questions will provide you greater discretion in skin typing.

Now let’s look at skin type II characteristics. Notice that it’s relatively similar to skin type I characteristics. What about the responses to UV light? It’s similar too, but the difference is skin type II people can produce a slight tan.

Imagine you have a customer in front of you right now. She looks like she could be a skin type I, but she also looks like she could be a skin type II. What one question could you possibly ask to know for sure that this customer is either a type I or a type II? The correct answer is “are you able to produce a tan?” or a similar question.

If she’s not able to produce any color other than red, she is a skin type I, and shouldn’t be allowed to tan. What if she says something like, “I have to burn a lot, but eventually I start developing a tan?” You have just identified someone who is a skin type II. At least she can develop a tan. Your job is to get her there without

burning her at all.

If you look at skin types III through VI, you'll notice the same identifying criteria: natural heritage, hair color, and eye color. Drop down to skin type VI for a moment. The characteristics for skin type VI persons include unexposed skin being black. They have dark eyes and dark hair. They have African or Aboriginal heritage. Notice though, that the chart says skin type VI persons rarely burn. Is it even possible for skin type VI individuals to burn?

Absolutely yes. Remember this: there is no such thing as "burn-proof" skin. If a skin type VI person comes in to tan, and they don't have any recent tanning history, don't start them out at maximum time because they can burn just like any other skin type. Is there a different protocol for skin type VI individuals? No, there isn't. You would follow all of the same protocol for screening that you would any other skin type.

It seems strange to many of our students that anyone with skin that dark might consider tanning. It's really not strange at all. Body builders who are skin type VI might come in because they want to get an even tone on their skin for a competition. Some want to get darker than they are now. Still others might be going on a cruise in some really sunny area and be advised to go condition their skin in advance of that super sunny exposure. Where are they supposed to go to get that done? The truth is that skin type VI individuals tan for all of the same reasons that any other skin type does, so it's not unusual at all for them to stop by for a visit. Just be careful not to initially tan at maximum exposure times.

There's another truth to consider. Plenty of skin type IIs and IIIs are convinced they are able to handle maximum exposure times long before their skin is ready. They may even tell you that they "never burn" in an attempt to convince you that they have tough, ultraviolet-resistant skin. Are they really burn-proof? No, there is no such thing as "burn-proof" skin. As a gatekeeper against overexposure, your job in part is to ensure proper exposure times.

The principles of skin typing are pretty basic. However, skin typing in the salon can be far more challenging, so let's step up your skills a notch.

You're working behind the counter right now, and a new customer comes in to tan. Here are her characteristics: She's got jet black hair (all natural, by the way), she's got very dark eyes (with no colored contacts), but she doesn't tan very well. What's her skin type?

Maybe you're thinking she's a type II because of her low tanning ability. Remember though that she has dark hair and dark eyes.

Before we give an answer, consider the next new customer who has just walked in. This customer has flaming red hair (all natural, of course), she has brilliantly green eyes (again, all natural), and she really tans enviably well. What is her skin type? Hmmm?

Maybe you're considering a something around a type II because of her

characteristics. Let's not forget that she tans quite well. These two scenarios aren't so straight forward, are they?

That's because real life isn't always straight forward. Not everyone has a pure heritage. Because of this, you can't always use heritage as a means of determining skin type. Eye color, as you know, can change with readily available cosmetic contacts. What about hair color? Yes, of course.

Because of a person's characteristics can provide undependable information, no one should completely rely on them. We've just removed half of the chart's information. If half of the chart's information is gone, what are you left with? All you are left with is the person's skin response.

Your best response is to ask the two questions we asked early on: "Do you burn easily? Do you tan easily?" Remember these? If a person says that they burn easily, they should automatically be placed in one of the first two skin types, because those two skin types burn easily. And you know how to separate a skin type I person from a skin type II, right? Just ask them if they have any ability to produce a tan, and you have your answer.

What if a person is in neither category? That is, what if they don't burn easily, but they also don't tan all that easily either? Where would that put this person on the chart? You guessed it — skin type III.

What if they tell you that they tan very easily, and it is clear that they do? That leaves you with skin types IV through VI. How would you know whether to type a person as a IV, a V or a VI? At this point, it's best to use untanned, natural skin color as your guide. That may require them to pull back a watch band, or to pull down a sock. If a person's untanned natural skin color is solidly black, that makes them a skin type VI. If they are dark brown, they are skin type V. Naturally light brown skin would put them into the skin type IV category. Does this make things a little easier?

Consider too that except for skin type I, each of the categories represents a range. Someone could just barely fall into the skin type II range, having just enough ability to produce a barely perceptible tan. Someone else might be on the darker side of the skin type II range, but they're not quite a type III because of their strong potential for burning. Another customer could be a very light skin type IV that has to start out at lower times, but each tanning session yields great results.

Another Way to Skin Type

There is a skin typing tool that is fun for customers. It's a skin typing questionnaire. We've provided our version on the next page. The instructions are simple — provide numeric answers based on the characteristics that most closely match your own unique situation. Once all questions have been answered, add up the points. At the bottom is a scale that determines your skin type based upon the number of points that have been tallied.

Again, it's a fun tool for customers. However, if

your customers are the ones providing the answers, you have to rely on their answers. Why would that be a problem? As soon as they see the form, they know how it works. Human nature is going to push them to get the highest score believably achievable. Why? Customers want as little restriction as possible when tanning, even if it means they might hurt themselves. So if they can justify themselves as a higher skin type on paper, they will do so.

As a gatekeeper against overexposure, your job in part is to ensure proper exposure times.

It's okay to use this kind of tool in your facility if you like this method; just be prepared to back up the customer's result with the principles we've provided you. If a customer wonders why you are taking steps to skin type them after they have filled out the form, just explain that the form is a tool that provides a general starting point (there is a range for each skin type after all), and you just want to complete the process (determine if they are in the listed range, or just a little to one side or the other). You want to be able to back up their result with facility-provided analysis.

Figure 2.3 — **SKIN TYPING QUESTIONNAIRE**

CHARACTERISTIC	0	2	4	6	8	NUMBER CHOSEN
Natural Eye Color	Light Blue	Blue, Green	Green, Gray, Hazel	Light Brown	Brown	
Natural Hair Color	Red, Sandy	Blonde	Light Brown	Dark Brown	Black	
Unexposed Skin	Reddish, White	Pale	Light Brown	Dark Brown	Black	
Freckles on Unexposed Skin	Many	Several	Few	Incidental	None	
Genetic Heritage	Celtic, Scandinavian	Northern European, North Asian	Southern European, Asian	Indian, South Asian, Latin American	African, African American, Aborigine	
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Sunburn Potential	Always Burns	Usually Burns	Burns Average	Sometimes Burns	Rarely Burns	
Tanning Potential	Unable to Tan*	Sometimes Tans	Tans Average	Tans Easily	Tans Very Well	
Last time you tanned?	More than 3 months	1 to 3 months	Within the past month	Within the past 2 weeks	Within the past week	

Add up the points in the “Number Chosen” column. Total Score:	
If your Total Score is...	
0-9: 1	
10-28: 2	
29-40: 3	
41-51: 4	
52-60: 5	
61+: 6	
...Your Skin Type is:	

*If “Unable to Tan” is chosen in the Tanning Potential row, the ability to tan is unlikely in a tanning device. Therefore tanning is not recommended.



Chapter Two Review

1. Approximately 10 percent of a person’s total body weight is made up of skin.
True or False?
2. Skin is divided into three layers: Epidermis, dermis and hypodermis. **True or False?**
3. Skin pretty constantly replaces itself once every 28 days throughout a person’s lifetime. **True or False?**
4. Melanocytes produce a substance called “melatonin” in response to UV light.
True or False?
5. Skin type one individuals should never tan indoors under any circumstances.
True or False?

[View Answers...](#)

CHAPTER 3: The Basics of UV Light

Clearing Up the Confusion

Because of a lack of basic understanding about some of the principles of light, some myths and legends have become accepted as fact. This has led to cloudy thinking about ultraviolet light, and how one should behave with respect to UV exposure.

In order to clear the confusion from past myths and possible future ones, it’s helpful to step back a moment and see where UV light comes from and how it is different from other forms of light. The goal of this chapter is to help clear the cloudy thinking (confusion) about ultraviolet light. Clearing the confusion will help you (and hopefully,

your customers too as you share some of this information) dispel the various myths and urban legends that affect the tanning industry.

What kinds of myths and legends? You've heard about the lady who fried her internal organs in a tanning bed. What about the concerns expressed about pregnant women tanning in your salon's equipment? Are they legitimate or not? Can the baby be harmed? Are there any problems with using a cell phone in a tanning bed? Is it really possible for ultraviolet light to travel through walls and give someone a melanoma? We once received a report of a fitness center owner with a couple of tanning beds. A customer there claimed her melanoma on her leg came from regularly spinning next to tanning bed rooms.

The background provided in this chapter will not only help build a good foundation for answering these kinds of questions; it will also provide needed information that can help develop good policy for dealing with other miscellaneous issues that may come up in your shop.

What You Don't See

Because it's often used in comparison with tanning equipment, the Sun is probably the best place to start. The Sun emits an entire spectrum of energy, much of which never reaches the Earth's surface. Part of the function of the numerous layers of atmosphere around the Earth is to block out those types of energy that would be harmful to life. Because of these atmospheric layers, only the helpful types of energy ever reach the Earth's surface. These energy forms are infrared (heat), visible light and ultraviolet light.

There are three types of ultraviolet light: UVA, UVB and UVC. UVA and UVB are the only types of ultraviolet light that ever make it through the Earth's atmosphere. UVC is absorbed into the Earth's atmosphere as it helps create ozone.

Tanning lamps are made to produce similar ranges of light that reach Earth. Approximately 60 percent of what a fluorescent tanning lamp produces when it is energized is heat. This is a solid number, regardless of the manufacturer. Roughly another 30 percent comes out as visible light. The remaining amount (approximately 10 percent) is ultraviolet light. Similar to the Sun, tanning lamps only emit UVA and UVB. A very tiny amount of UVC is created inside of tanning lamps, but this gets filtered out by the phosphors in the lamp, as well as the glass itself.

The Roles of Ultraviolet Light

Before we go further, let's bring some meaning to the individual bands of ultraviolet light. There are those who are trying to redefine the meaning of these bands of light to something that sounds rather negative. Your job is to prevent the bad while creating a controlled environment that will help to maximize the best cosmetic results. It's only reasonable to ask you to refer to these individual bands of ultraviolet light in a more positive way. After all, you are trying to market your tanning services. Let's define ultraviolet light this way:

UVA (320 nm to 400 nm) — This is the band that everyone commonly refers to as the “browning ray,” the “bronzing ray,” or even more plainly as the “tanning ray.” This is the one that is very effective at getting skin to turn brown. It is not very effective at getting skin to produce melanin. Melanin is the substance that actually turns brown in response to ultraviolet light.

Those who oppose the tanning industry refer to UVA as the “Aging ray.” They call it that because they want the public to associate any UVA exposure with a detrimental effect. It is true that if you get too much UVA repeatedly, you can develop photoaged skin. Photoaged skin is another way of saying “pre-mature skin aging” or leathery looking skin. Again, your role in part is to prevent the bad, so to emphasize the good (the desired cosmetic effect) over the bad, is acceptable.

UVB (280 nm to 320 nm) — This is the ray that many both inside and outside of our industry refer to as the “burning ray.” This is really not the ideal way to refer to this ray. Why? It’s one of the ways that those who don’t like our industry, talk bad about it. Those outside the industry are actively trying to make your salon look bad. They will say that “B” stands for “Burning.”

Long ago, referring to UVB as the burning ray was a way for some in the tanning industry to either refer to the power of a particular unit (i.e. the unit was designed only for those advanced tanners wanting to break through a tanning plateau). More often than not today, it’s a way for salons to market their more expensive equipment. For example, one might say, “these beds (referring to tanning units with a higher UVB output) have more burning rays. These other (much lower UVB output, and often much more expensive) beds only have a minimal percentage of burning rays, so your chance of burning is much lower.”

Our ideal preference is that every tanning business refer to UVB as a more positive form of light. Why? Your job in part is to prevent the bad from ever happening. There are other positive ways to market tanning services that may prove as effective, if not more effective, than the approach that emphasizes the potentially bad so as to “scare” customers into bigger beds. How can this be done?

First, let’s redefine what UVB and UVA do. There’s no sense in letting other industries define our industry. “B” stands for **“Beginning.”** It begins the tanning process by getting melanocyte cells to start producing melanin. That’s UVB’s role in the process. If UVB’s role in the process were to turn skin brown, it would be called the “browning ray;” but that’s not its role. So UVB is the “Beginning Ray.” “A” stands for **“Advancing.”** It advances the tanning process by getting melanin that has been produced in skin to turn brown. That’s UVA’s role in the tanning process. If UVA’s role in the tanning process were to produce melanin, we might call it the “activation ray” instead; but that’s not its role.

There are other ways to define this for your customers without alliterating. You could call UVB the “production ray.” If you are trying to emphasize the advantage of your units that produce a higher level of UVB, you could say something like “these beds have more ‘production rays.’” What are production rays? “These are the rays that produce what skin needs in order to achieve its maximum tanning potential.” How

about, “these beds have more ‘activation rays.’” What are those? These are the rays that activate skin to produce its best possible tan.

If simplicity is your style, your approach could be more along the lines of:

- UVB begins the process; UVA advances it.
- UVB starts it, UVA finishes it.
- UVB makes it; UVA browns it.
- UVB is the pigment building ray; UVA is the bronzing ray.

These are simply suggestions for providing some balance in terminology. There are plenty of ways to present your unique equipment selection to your customers. The purpose of this training course is not to create a marketing format for your salon. However, we do want this course to function to some degree as a road sign of sorts; guiding your strategies along the way with helpful principles from solid tanning fundamentals.

UVC (100 nm to 280 nm) — This is commonly known as a germicidal ray. It is not a part of tanning, so we won’t focus on that too much for now.

Confusing Terms

It’s important to put ultraviolet light in its context. Clearing up confusing terms will help you dispel tanning myths. Close your eyes for a moment and think about the words **RADIOACTIVITY** and **RADIATION**. What kinds of pictures pop into your mind when you think about those two words?

Go ahead and say it. You know what you’re thinking. It’s not pretty, is it? Common answers in our classroom training sessions include atomic bombs, nuclear medicine, nuclear power plants, x-rays, World War II, glowing in the dark, and other unpleasant things. While nuclear medicine could be an exception to unpleasant things, certainly the process of use is perceived as less-than-pleasant.

***...let’s redefine
what UVB and
UVA do.***

“Radioactivity” and “radiation” actually mean different things. One of these terms relates to those unpleasant things just mentioned; the other has nothing to do with them. Yet these two terms are often confused, even by salon operators. We’ve been asked on more than one occasion if tanning beds are “radioactive.” How would you answer? What does “radioactivity” mean anyway?

Radioactivity describes the ability of certain materials to change their nature as they lose or discharge energy. So think about your tanning equipment for a minute. Does it change its nature as it loses or discharges energy? Will it turn into a chandelier or become a pile of disassembled parts while it’s tanning someone? It doesn’t change its nature at all, does it? So tanning equipment isn’t radioactive. Radioactivity does describe what’s happening with certain materials in nuclear power plants and other things.

It's good to know that tanning equipment isn't radioactive. It is related to radiation though. What then, is radiation? **Radiation** is simply "discharging energy." That is what is coming out of those tanning lamps in your equipment.

Distancing Further from the Confusion

Are you familiar with those mapping programs on the internet? You can see a satellite view of the Earth and then zoom in close enough to see the roof top of your house. Pretend for a moment that the illustration of the bar between the Sun and Earth on the following page is a satellite map. You've zoomed in close enough to see one big neighborhood with a couple of subdivisions. Eventually our goal is to zoom in close enough to see the roof top we call "ultraviolet light." Right now though, we'll call those subdivisions "Ionizing Radiation," and "Non-Ionizing Radiation." What does it mean to "ionize," anyway? To ionize means to separate atoms in its target into smaller ions.

***Clearing up
confusing terms
will help you
dispel tanning
myths.***

"Wonderful," you think. "Now I can take this information with me behind the counter at the salon and provide my customers with a more meaningful tanning experience." You're right. That definition might be a little too technical. So let's try instead to make this practical: When ionizing radiation enters a person's body, it does damage by separating

things in the body that are not designed to be separated. It's the reason your dental technician is going to take a lead blanket and cover you with it. He or she wants to prevent any unnecessary injury in the process of taking low dose x-ray shots of your teeth.

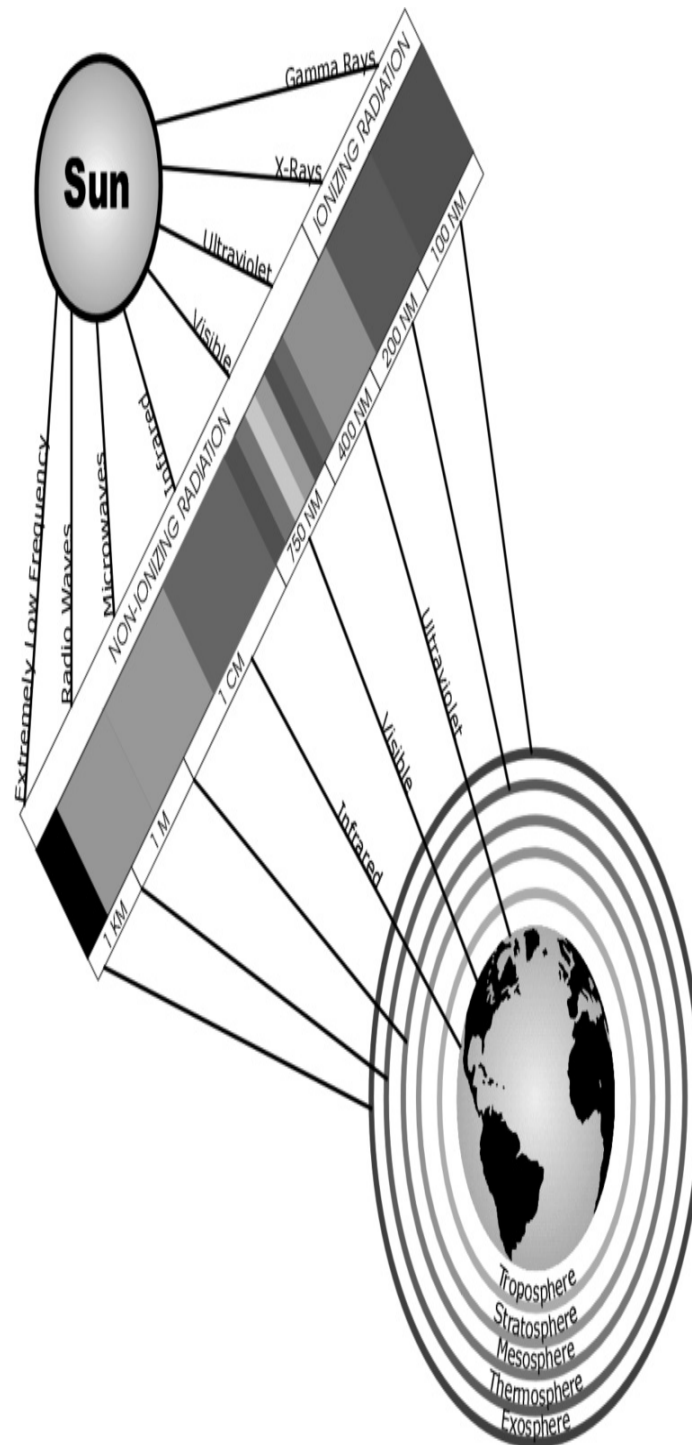


Figure 3.1

Look at the illustration (*Figure 3.1*). Which neighborhood is ultraviolet light in? It looks like it's mainly in the non-ionizing radiation neighborhood, but might also be taking up residence on both sides of the fence. Hmm. If that were really the case, then you would be responsible for injuring your customers. The redeeming part is that there are three types of ultraviolet light: UVA, UVB and UVC. UVA and UVB come out of your tanning lamps. UVC does not. UVC is the part that's bleeding over into the ionizing neighborhood.

A Word about UVC Light and Sanitation

Some professional hairstyling facilities use germicidal lamps today. Those lamps are generating a lot of UVC. Those lamps are used to kill germs off of brushes, combs and a lot of other things. Because UVC is such an effective germicidal, it's also used to sterilize water. Don't start thinking though, that UVC will come out of your tanning equipment, and kill a bunch of germs. Even if tanning lamps did emit UVC and kill all of those surface germs; you still have a serious clean up job to do. Besides germs, there is still tanning lotion and traces of other people on those customer contact surfaces.

We know what you're thinking — “thanks for the graphic images.” It may be unpleasant, but what's even more unpleasant is everything that is left behind if a salon were to only rely on tanning lights to kill germs.

On a side note, surveys have been done in the past of thousands of tanning customers. Guess what the number one concern of your customers is? In any other business, it might be price or location. In the tanning industry, the number one concern of your customers is **sanitation**. That means your customers will drive past a dirtier, cheaper salon that is closer to them, to get to a place that is more expensive and farther away, but cleaner. Wouldn't you?

What specifically does your customer want to have cleaned? In a word, everything.

What specifically does your customer want to have cleaned? In a word, **everything**. The standard, whether or not you are in a government-regulated area, is to sanitize every customer contact surface with an industry-grade sanitizer between every visit by the customer. That includes the bottom acrylic, top acrylic, handles, top and bottom leading edges of the tanning bed, handles on doors of stand up units, chairs in the tanning room, and even the door knob.

Back To UV Light Principles

Okay, so no UVC comes out of the equipment, and it's on the ionizing side anyway. You know now what ionizing radiation does now — it kills germs. But what does non-ionizing radiation do, since that's where tanning light is? Non-ionizing radiation raises the energy level of skin cells and changes their chemical nature. The process is called a “**photochemical change.**”

You say, “Oh, you are sounding like my old biology teacher.” Well, think back to him for a minute. Remember what he taught about photosynthesis? What happened in photosynthesis? Light came down, got into that plant leaf, raised its energy level, changed its chemical nature, and what did that plant do? It produced oxygen. When this process happens to plants we'll call it photosynthesis. When it happens to people we'll call it photochemical changes. Is it making more sense now? So light raises the energy level of skin's cells, and what does skin produce? How about tans, and unfortunately burns sometimes, when someone has over-tanned.

We have a special word for skin that turns red from burning. It's called *erythema*.

Erythema comes from a Latin word that just means...red. Now you're bilingual. Cool. But the medical industry uses the same word to talk about "sunburn" when they describe the disruption of the blood vessels and all of the associated damage that goes along with that redness of skin.

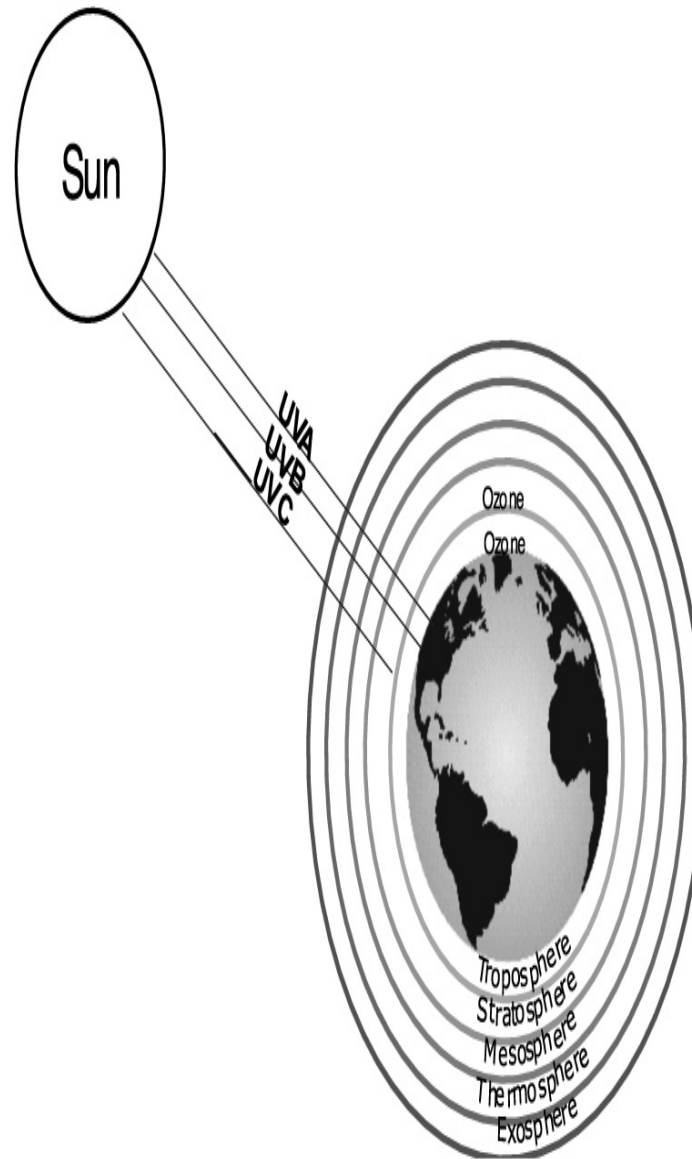


Figure 3.2

Look back at the chart for a minute and notice the numbers and abbreviations next to the color bar: 1 km, 1 cm, 750 nm. Don't get bogged down by that. It's just a measuring stick to tell you how long that electromagnetic wave is. That specific wavelength will define specifically what type of radiation you're dealing with. Everything is based on the meter. So for example, 1 km is 1 kilometer. That's a portion of a mile. Radio waves are that long, so your favorite radio station is being carried on wavelengths that are a portion of a mile. Microwaves are about a meter in length so something about that long is being crammed into your food to hopefully make it taste better. Infrared is about a centimeter or a portion of an inch in length. We mentioned it before, but infrared is the scientific term for "heat."

Everything else in the spectrum is in the nanometer category. What's a nanometer? **A nanometer is one billionth of a meter.** That's pretty small. Regardless of the

wavelength, something is resting inside each one of those waves. It's called a photon. A photon is a packet of energy. The larger the wave gets, the smaller the amount of energy inside that photon. You wouldn't think so. You'd probably think it was the other way around. And the smaller the wave gets, the larger the amount of energy in that photon. Now where's ultraviolet light? How big is that wave? Pretty small, right? What does that mean in terms of energy? An awful lot! That's why it is so important to know what kind of biological effects are associated with exposure to ultraviolet light. As wavelengths get smaller, their frequency increases, so not only is it more powerful, but there is more of it bombarding its target in any unit of time.

Now we've talked about radiation being discharging energy; and photons are packets of energy. But what is energy? Energy is the ability to do work. How many of you, when your alarm clock went off, felt like you had the ability to get up and do a little work today? Okay, never mind that question. Let's illustrate this in a little different way.

Energy Illustrated

Imagine for a minute that you have a bowling ball in your hand. It's 15 pounds. It's got your name on it. And you only bowl strikes with this ball. Let's say you take that ball and roll it down the alley. It's another amazing strike.

Question — Did that ball have the energy to knock over those pins? Yes it did. Maybe you're thinking, "it worked, but I had to help it out a little bit." Regardless of how that ball got enabled, it still had the ability to carry out that work. In fact, it might be helpful to think of it as a work assignment for a moment.

Let's say that ball is resting very precariously on the edge of a table. It happens to roll off the edge, on its own, and is heading toward your toes at an ever increasing rate of speed. If you don't get your toes out of the way in time, does it have the ability to carry out its work assignment on your toes? Sure it does; and you're going to transfer that work assignment to sound, right? OUCH!!

Now let's transfer that principal to your tanning lamps. That UV light is coming out of the tanning lamps and is about to make contact with your skin. Does it have the ability to work with your skin? Absolutely.

Alright, let's switch gears and move away from this abstract stuff. It's time to use these UV light principles to dispel public tanning myths.

The Legend of the Roasted Tanner

Have you ever heard this story before? It's been around for nearly three decades, and probably has a thousand variations. Here is just one.

There was a lady who had to get an instant tan TODAY. Because TOMORROW, she's going to the prom. She's getting married. She's going on vacation — probably all three at the same time (you can say anything when you're talking in legend terms). So she goes to a lot of tanning salons, all in one day and tans the

maximum time in each salon's tanning device.

At the end of the day, the tanner smells a sickly sweet smell. And in the morning... well, she never woke up in the morning. Her liver had cooked. Her ovaries fried and exploded. Her brain had sizzled to a carbon block. SAME THING AS MICROWAVES, you know.

Not one of these urban legends has ever taken place. Not one. And they can never take place. Why? Well, a couple of reasons. The first is, UV light doesn't travel very deep. UVA travels more deeply than any other type of ultraviolet light, and with your average tanning bed, UVA only goes about two millimeters deep. That's about the thickness of cardboard. Better yet, stack a couple of CD's on top of each other. That's about two millimeters high. Not very deep at all, is it? That's not deep enough to reach bones, brains or any other internal organ.

Even if those rays could get down to internal organs, the second reason that these stories could never take place is UV light doesn't even behave the same way that microwaves do! If you can get these two principles down, you can illustrate them in a variety of ways. Here are a couple of examples.

Example 1 — Remember the electromagnetic spectrum you were looking at? You could use that with your customers. It may not be your first choice, but it's actually a pretty good tool. So think about this: What comes out of your ceiling lights — is it visible light or is it radio waves? It's visible light, right? Radio waves have never been good at making light bulbs turn on. Look back at the chart again. Do you use X-rays to cook your food or do you use heat (infrared)? You use infrared, to cook your food. You could take a pretty good diagnostic of a waffle with an x-ray, but you need heat to cook it properly.

The same thing goes for ultraviolet light and microwaves. They're not the same thing either. In fact they're almost a half a light spectrum apart. They just don't behave the same way. You really don't need this book to think this one through. Imagine you are starving right now. You take a huge slice of pizza and put it into a tanning bed for 20 minutes. What do you think is going to happen to that slice of pizza? Nothing, other than a little warmth from the heat, perhaps.

Now let's take that same piece of pizza and put it into the microwave for 20 minutes. What's going to happen to that piece of pizza? You can imagine the fire that would start. So microwaves and ultraviolet light are not the same thing.

Example 2 — We have often conducted training classes in Myrtle Beach, South Carolina. One hotel property commonly used for classroom training is right on the beach. On one occasion an employee at the hotel recognized us and greeted us. "Hi! Oh! You're that tanning guy! I used to tan pretty regularly up to a couple of months ago. Then I quit because I got pregnant."

Not one of these urban legends has ever taken place. Not one.

She was so interested in feedback on her comment about not tanning while she was pregnant that she walked away from the front desk and into the meeting room where we were preparing for class. After all, those rays, she emphatically stated, “Will kill and boil the baby!” The assumption, of course, was that tanning devices were no different than microwave ovens.

Pregnancy and Tanning

There is a lot of confusion about pregnancy and tanning, even in the tanning industry. The confusion begins when an assumption is made that UV light behaves differently once a person is pregnant. Our goal is not to dictate policy, but rather to provide clarity about the issue so you can explain your company’s position, regardless of whether they allow pregnant women to tan.

Our goal is to help you better explain your pregnancy policy at your place of business.

You can imagine the potentially emotionally charged response you might receive if you are not able to explain your position. Imagine telling a pregnant woman that she is not allowed to tan at your facility, and then not offering any explanation. Is she going to be happy about that? Let’s say you do allow pregnant women to tan, and let your pregnant customer know that in front of a number of other customers without any explanation. What

do you think is going through the minds of your other customers right now? “You’ll tan anything to bring money into the shop, won’t you?” Whether your salon chooses to tan women who are pregnant or chooses not to tan them, employees need to be able to explain “why” to their customers.

General Considerations

Physical Complications — You have a customer who is eight and a half months pregnant and she tans regularly. For most women who are this far along in pregnancy, they are uncomfortable no matter what they do, but trying to tan in a low profile, entry level device might prove to be especially uncomfortable and even challenging. For that reason, she might decide not to tan. Does this have anything to do with UV light boiling little baby like a microwave? No, it is just a practical consideration. Let’s be clear that this and all other considerations offered below are simply practical considerations.

Liability — Let’s assume for a minute that you allow pregnant women to tan, and that you’ve just sold a one-month tanning package to a pregnant customer. She tans regularly throughout that month. Two months later, after she’s stopped tanning, she loses her little baby. Do you think something might be going through her mind about how tanning might have been connected to her loss?

You know you didn’t cook her little baby. Ultraviolet light from tanning equipment doesn’t penetrate very deep, and even if it did, those rays don’t behave like microwaves. It does make sense though, that if you are going to allow pregnant

women to tan in your facility, that you define a way of doing it. This will help clear any potential confusion for your customers.

We would like to suggest first (if your policy is to tan women who are pregnant) that you re-explain the tanning process to her, reminding her that UV light doesn't penetrate very deep, and that even if it could, it doesn't behave like microwaves. The second step is for your pregnant customer to get a doctor's note. We want the doctor's input here. We're well aware that a lot of doctors object to women tanning indoors, but more and more doctors are beginning to say that it's okay for a pregnant woman to tan indoors. Here are the common considerations of the doctors who have more information on this.

Doctor's Considerations

Heat — The problem with heat is that too much of it for too long can complicate the pregnancy. Ultimately the baby's temperature would also raise and if baby gets too hot for too long, it could lead to spinal malformations. Some have asked in class if this is the same thing as spina bifida. Spina bifida is a type of spinal malformation, but any type of spinal malformation could develop. So pregnant women should avoid long hot baths, saunas, Jacuzzis and that hot summer sun.

How does this apply to you? Let's say it's the busy season. Typically, it's crowded from mid-afternoon until early evening. For most salons, it gets warm inside that building, even with an over-sized air conditioning unit for the salon.

Your pregnant customer has just entered the building in the late afternoon. Is she going to get to tan right away? No, she's going to have to wait. While every salon is different, the average wait-time mentioned in class is somewhere around 20 minutes in that warm building full of customers. Then she goes into the tanning room where it is warmer. If she's very far into her pregnancy, she's probably going to take a little longer than normal to get ready, but let's say she gets ready in only five minutes. Then she tans for the full time (20 minutes in this case). Due to possible physical complications, it's going to take her a little longer to get out of the tanning unit and get ready to leave. She may be in your shop for close to an hour before she leaves, and perhaps now you are becoming concerned about the heat levels in your shop. Do heat levels have anything to do with UV light entering a person's body and harming little baby on the inside? No, certainly not. This is just a practical consideration about the heat in your shop. Maybe, based on the environmental conditions in your shop, you would tell her "I'll let you tan until around noon time, but after that, it gets rather warm in our shop. To keep baby comfortable we allow pregnant women to tan only during the cooler morning hours in our facility."

Hormonal Changes — Because of hormonal changes, a couple of things can happen when tanning. The first is that she could burn more easily. Is she guaranteed to burn? No, she might not ever burn. It could be instead, a really random occurrence where she becomes sensitive once, say during the fourth pregnancy, second trimester, eighth week. It could also potentially render her permanently more sensitive to UV light. This would be a rarer occurrence.

The second thing that could happen from hormonal changes is that she could tan unevenly. In other words, she could develop cosmetically light or dark patches of skin: A light patch on her leg perhaps. Maybe a dark patch on her shoulder. Possibly the facial mask of pregnancy. “Linea Nigra” is another possibility, where she would develop a dark vertical line down the middle of her tummy. For a very practical reason, she may not want to tan. Does this have anything to do with ultraviolet light entering a person’s body and harming little baby on the inside? No — This is just a practical consideration about light sensitivity and cosmetic changes.

Dehydration — There is a natural concern for pregnant women to keep up on their moisture levels throughout their pregnancy because of the various complications that can develop otherwise. The nuance that sometimes gets associated with dehydration is that if Momma tans, she will go from normal moisture levels to completely without any functional level of moisture at all, whatsoever. She might get so dehydrated that she will pass out.

It’s true that a person will lose moisture while they tan. People lose moisture when they tan, when they breathe, when they live, when they move around. We are always losing moisture. Some people really have passed out while tanning because they were dehydrated. But they were dehydrated before they ever arrived at the tanning facility. Tanning was just the last activity they engaged in before they passed out. To blame complete moisture loss on tanning wouldn’t make sense, otherwise everybody would pass out every time they tanned and tanning would be illegal. It is courteous to offer her some water to drink before and or after her tanning session.

Vena Cava — This is a really big blood vessel that is positioned right next to the spine. Imagine your really pregnant customer has been tanning regularly at your facility. She is so pregnant now that the contractions have started. Forget Braxton-Hicks (pre-labor contractions that are often much less painful); this is the real thing. These contractions are a few minutes apart and she’s on her way to the hospital now...but not before she stops by your facility again, because she doesn’t want to lose any color while she’s in that hospital.

Okay, so this is an exaggerated scenario, but we have heard of this being reported before in the classroom. Women in their third trimester are usually rather uncomfortable, and lying on their back can make them even more uncomfortable. One of the problems with lying on their back is that the weight of the baby would rest on the vena cava, compress it against the spine and reduce blood flow back to her heart. Some could pass out from this. All she would have to do is roll over to one side or the other to restore normal blood flow. Pregnant women are often told that the left side is better than the right side; this is because vena cava is located on the right side. Does this have anything to do with ultraviolet light entering a person’s body and harming little baby on the inside? No — This is just a practical consideration about positioning in a tanning unit. Some might find a stand up booth a little more comfortable.

You might be thinking, “Why do you keep bringing up this point about ultraviolet light not entering a person’s body and harming the baby?” The reason is that after

all of the practical considerations, you may have a customer suggest something along the lines of “You’re missing the point — radiation is radiation. You never know what that will do to a person, long term, down the road.” May we suggest that those who are thinking this are perhaps confusing radiation with radioactivity? Remember how radioactivity is the stuff that harms a person’s body, and can harm their offspring too. Is there anything radioactive from the sun that is making it down to Earth and harming us? You’ve seen the occasional super pregnant woman on the beach. What were you thinking when you saw her? Was it something like, “Wow you better get inside right now before you have a defective baby?” Do you know of anyone who ever had a baby with a birth defect that could be pinned on momma being out in the sunshine? How about from the tanning bed? Could that birth defect ever be pinned on momma’s tanning history in a tanning bed?

Our goal is to help you better explain your pregnancy policy at your place of business. If you decide not to allow pregnant women to tan at your business, you need to explain why. Perhaps your insurance policy for your business prohibits pregnant women from tanning. Maybe it just stays to warm in your building. Explain it to them.

Do heat levels have anything to do with UV light entering a person’s body? No, certainly not.

If you choose to allow pregnant women to tan, explain the tanning process, letting them know the rays don’t go down that deep. Get a doctor’s permission because maybe the doctor has some unique medical insights into that specific person’s pregnancy that you’re not aware of. Then monitor for heat levels in your shop, and for her burning sensitivity, and cosmetic changes and her hydration levels.



MODULE ONE REVIEW

1. The first “tanning lamp” was developed in 1890. **True or False?**
2. Exposure schedules determine exposure times based on skin type and recent history of skin reddening. **True or False?**
3. Melanocytes produce a substance called “melatonin” in response to UV light. **True or False?**
4. Skin type I individuals should never tan indoors under any circumstances. **True or False?**
5. UVC assists with the tanning process more effectively than either UVA or UVB. **True or False?**
6. Approximately 10 percent of a tanning lamp’s output is UV light. **True or False?**
7. UVB is the “beginning ray.” **True or False?**
8. UVA and UVB together operate as sanitizing rays to help clean your equipment. **True or False?**

9. *Erythema* is a Latin word that just means “red.” **True or False?**
10. UV light only travels the depth of four CDs into the body. **True or False?**

[View Answers...](#)

MODULE 2

THE POWER OF LIGHT

CHAPTER 4: The Basics of Biological Effects

A solid foundation for this chapter was set when we covered the basics of UV light, skin and skin typing. Let's do a quick review of some terms to sharpen our focus and understanding of how the tanning process works. Are you ready to test your memory? Fill in the blanks below.

The Tanning Process

UVB is the **B**_____ ray. Be careful of what you put down. If you've been using a different term at your facility, it will be easy to put down a different term than the one you learned earlier in this training manual. If you chose beginning ray you got it right.

How does it begin the tanning process? It begins the tanning process by getting (*fill in the blank below*):

M_____ cells to start producing melanosomes. These are cell bodies that contain a pigment granule called (*fill in the blank below*):

M_____. Do you remember what answers go in each of the last two blanks? These terms are often misstated in the salon. We've secret shopped countless salons and sometimes heard from the operator behind the counter, that the first *M* stands for lots of things other than what it actually stands for. So the first answer should be melanocyte and the second should be melanin. This is UVB's job.

Now skin needs three things in order to tan: UVB, oxygen and UVA. UVB has been discussed already, but how does oxygen play a part in the tanning process?

The natural thought is that oxygen comes from the air. Skin is exposed to air directly, but melanin is buried so deeply in skin (at least 28 days below the surface of the epidermis), that it's impossible to get enough air from outside skin, so the bloodstream accommodates.

If you're new to the tanning industry, you may or may not be familiar with tanning products that have a "tingle" factor in them. Tingle products are designed to make skin feel anywhere from slightly warm to very hot. The idea behind doing this is that

if somehow through the application of a product, the manufacturer can get blood to flow closer to the surface of skin; that should deliver more oxygen and assist the tanning process. It works, but only to a point. You can only get limited amounts of oxygen from skin through this method.

People don't need to turn deep shades of red in order to get ultimate results. The perception the customer has who uses these products is "wow, I can feel myself tanning." No one actually feels themselves tanning. Your customers can feel the fire in the bottle though. It's not as popular as it used to be, but many still love that super hot sensation on their skin.

Okay, so UVB has activated those melanocyte cells to produce melanin. Oxygen has been delivered to skin to oxidize melanin so that it will be prepared for UVA exposure.

UVA is the (*fill in the blank*) **A**_____ ray. This term is generally not as difficult for students taking our classroom training, The answer we are looking for, based on what has been covered so far is the advancing ray. It advances the tanning process by getting those melanin pigment granules produced by UVB exposure, to turn brown. That's UVA's job.

...you get two forms of protection: additional melanin and additional keratin.

So, is that all there is to the tanning process? No, remember earlier that there were two types of tanning cells in the epidermis? The first is the melanocyte cell, and the second is the keratinocyte cell. Keratinocytes, as you recall, produce a substance called keratin. You will also recall what keratin is (a fibrous protein that provides structure to the epidermis). We only need to look at what keratin does during the tanning process.

During the tanning process, the production of keratin is accelerated so that the outermost layer of the epidermis thickens up, up to twice its normal density. So you get two forms of protection: additional melanin and additional keratin. Biologically they are both doing the same thing — providing protection from excessive exposure to UV light. In fact, melanin protects keratin and keratinocytes during their formation, then, as it is exposed to ultraviolet light, it stains or "tans" keratin so that keratin can function just more effectively as a shield against excessive exposure.

One other component to the tanning process should be mentioned. Remember those photochemical reactions we discussed earlier in Chapter 3 — The Basics of UV Light? You need to know the first law of photochemistry. The first law of photochemistry is "**in order for light to have an effect, it must be absorbed.**" With no absorption, no photochemical change occurs.

The Effects of Photochemical Changes

What kinds of things happen as a result of these photochemical changes? A number of biological effects. Let's consider these. As you do so, you'll become more familiar

with some industry acronyms.

IPD – Immediate Pigment Darkening is what this acronym stands for. It describes the ability of skin types four through six to tan. They just tan fast. Skin types four through six can walk into a tanning room with a little lighter skin, and come out after the session with noticeably darker skin. Doesn't that just make those of you with skin types two and three green with envy? Would you like to know why they can tan so much more easily? Those with darker skin types are always producing melanin, even without any help from UV light. When UVB light is introduced into the process, it accelerates their tanning potential even more.

DPD – Delayed Pigment Darkening is the meaning of this term. It describes the slower ability of skin types two and three to tan. They tan, but they have to have UVB, oxygen and UVA in order to do it. There's no pre-existing melanin in the skin of those with skin types two and three. DPD can take anywhere from three to ten days to develop! This is why you might suggest to someone who has lighter, fairer skin that they not look for immediate results. If they do get any immediate result, it's going to be red (erythema), and at that point they have effectively slowed down, if not stalled and reversed the tanning process. Why? Because now their body has to turn its attention away from tan building to something more important: healing a skin injury.

MMD – Minimum Melanogenic Dose. This acronym isn't frequently used, but it is still part of the tanning industry's vocabulary. It refers to the minimum amount of exposure that it takes to get a person's skin to produce a slight tan.

MED – Minimum Erythemogenic Dose. This refers to the minimum amount of exposure needed to produce a slight reddening of skin. MMD and MED often get used when tanning equipment manufacturers determine exposure schedule guidelines for users of tanning devices. Manufacturers are supposed to determine what it would take to make a person achieve MED. Once that is done they back off of the initial exposure schedule times so that there is a buffer. No telling if someone has been outdoors today or is on a medication or has some other complication where tanning time should be limited. The buffer provides some protection against those possibilities.

Immediate Erythema. You remember what erythema refers to. "Immediate" erythema refers to *how* a person turns red rather than *when* they turn red. At the moment their skin turns visibly red, the rest of the process shows up very fast.

Incidentally, what if someone shows up at your salon and her skin is just a little red before she ever tans? How much time can you give her? She shouldn't get any time at all today because her skin has signaled you that she's had too much exposure already. All she would do is add a layer of damage on top of already damaged skin.

Delayed Erythema. This is a really bad sunburn. This is the person who was only supposed to get a few minutes of exposure, and instead got way more. Phil Wilson, tanning program director for the state of Oregon relays a story of how an Oregonian woman was only supposed to get 15 minutes of exposure on one unfortunate

occasion. She fell asleep in that time, and the timer got stuck...on. She stayed in the unit for 75 minutes before leaving. One wonders what the operator was doing during that hour and 15 minutes? In a similar incident in Sanford, NC one of our students fell asleep in a tanning bed. Likewise, she was supposed to get 15 minutes, the timer got stuck and she was exposed to UV light for 90 minutes.

Do you think in both cases that their skin might have turned just a little bit red? Actually immediate erythema doesn't have to show in order for delayed erythema to take effect. It would absolutely turn red 10 to 12 hours after the exposure though. That's how long it takes for delayed erythema to begin showing up — **10 to 12 hours.**

Delayed Erythema. This is a really bad sunburn.

How do you recognize your client's delayed erythema if it hasn't shown up yet? There are no visible detectable signs of delayed erythema before it occurs. Sometimes the client will mention something about sensing tingling and itchy skin. The biggest clue is the knowledge that they received more exposure than they should have. What do you do for a person who clearly received too much exposure?

First Aid

The first course of action is to recommend they seek medical attention immediately, whether or not the effects are immediately noticeable. If your client received an eye injury, then you should get her to an emergency room or an ophthalmologist, not an optometrist or an optician. Once you have done that, your state or regional governing agency may require that you complete a consumer tanning injury report, and submit it within five working days, or sooner in some cases. Keep a copy for your own facility records.

It's pretty common for customers to decline medical assistance. If your customer refuses medical assistance, suggest the following **two-step home remedy** at a minimum.

Step One — Advise your customer to **soak in a tub of cool, but not cold water.** Tell her to do this for 15–20 minutes per session, every two hours for up to 12 hours. Right now her skin is converting photochemical reactions into heat, and your customer needs to dissipate that heat as rapidly as it is developing. You might be thinking, "well if cool water is good for that, then cold water would be really good." The problem is that cold water will cause her to start shivering, and shivering is the body's way of heating itself up. Right now, you just want to get rid of the excessive heat that is building up. Lukewarm is about the coolest temperature that can be tolerated without beginning to shiver.

One possible objection your customer may have, is to taking a bath every two hours. Who wants to bathe every two hours? The problem is that this person has received enough exposure to make their skin peel. The more often they take advantage of cool soaks (up to every two hours; any more than that is

unproductive) the less likely they will be to peel.

The following is merely a condition, and not a step. If your customer experiences any pain from the burn you may want to suggest she consider an over-the-counter mild pain relieving product. Don't direct her to any specific one as she might be one of the rare individuals who have a reaction from that particular medication, or it might also be bad if she takes it with her current mix of medications that have already been prescribed.

Step Two — At the end of the cool soaks in step one (notice we didn't say "in between" or "during") initiate step two. **Start using some kind of moisturizer.** Aloe Vera products work great. Cold creams are wonderful. Aveeno® oilated oatmeal is fantastic. A number of indoor tanning product manufacturers also produce a sun burn relief specialty product. A trick of the trade is to put that moisturizing product in the refrigerator during the cool soaks in step one. After all of the heat has been removed from skin, it feels really good to put a cool moisturizer on.

Some attendees in our classes have asked about skipping step one and going straight to step two by using a cool moisturizer every two hours. The thinking on this is that it would take care of both steps at the same time. It's not a good idea to do that. Do you remember hearing that you should never put butter on a burn? Butter is cool, but it's going to lock the heat in and aggravate the injury. The same applies to today's moisturizers. They will lock the heat in just as effectively, and make the burn worse. So get the heat out first, then use the moisturizers.

Another question that comes up periodically in class is, "What about treating the face?" Lengthy cool soaks in a bathtub aren't a practical way of dealing with the face. Good question. Have your client fill a sink with ice water. Tell her to dip her face in the ice water, holding her breath as long as she can reasonably tolerate it. The bitter cold will feel almost painful since skin is very temperature sensitive after a burn. The reason you can use ice-cold water on the face is that the face is not going to shiver like the rest of your body. She should dip her face in the ice water two to three times for as long as she reasonably can. This procedure should be repeated every two hours for up to twelve hours.

"What about treating the face?"

If she can't hold her breath under water, she should consider cold damp towels or cloths applied to her face. Water immersion is preferred because it provides an even coverage on skin. At the end of the freezing cold soaks, she should likewise progress to step two by using the moisturizers.

Avoid Recommending Alternate Treatments

There are a number of alternate or supplemental remedies that have been suggested for dealing with a sunburn. Let's take a look at some of these and discuss why they might not be the ideal way to deal with delayed erythema.

Many have been concerned with restoring the acid balance that is lost from

overexposure. (Skin's acid balance helps to protect against some common bacteria and fungi that come in contact with skin.) In an effort to restore the acid balance, some have tried using tomato slices, vinegar baths, and other acid-based means. Tomato slices and other similar remedies usually leave a residue on skin that locks the heat in, and aggravates the burn. Vinegar baths are a little different. They could potentially be helpful if we were talking about a section of the body such as arms and back. Delayed erythema coming from tanning units are usually head to toe. Could you imagine putting vinegar on your body from head to toe? The overpowering smell would probably cause additional trauma.

What about baking soda or corn starch in the bath water? Some have suggested that this is okay to do, and may even sooth some of the pain. While these things can be helpful, they too can leave a residue on the skin which in turn locks in some of the developing heat from overexposure.

Evaporated milk and yogurt have also been suggested by some in the past, but here again, the residue will present a problem. Tea bags are yet another therapy. In other words, make a cup or two of tea, let the water and the tea bags cool. When they do, drag the cool wet tea bags over the affected area for speeded relief. The tannic acid in tea is supposed to be good for relieving swelling. This may actually have some value, but rather than replacing the two step home remedy, we would suggest using it afterwards.

Other remedies might also be good after the two step home remedy. We suggest similarly, that first aid be done first, then try those other therapies later. Some alternate remedies are actually counter-productive and should never be used.

Take, for example, a hot shower. Some have argued in class declaring that it feels really good to take a hot shower after a bad burn. We wouldn't argue whether or not it feels good for some individuals; however, hot showers present two problems for skin. The first is most obvious — heat is being added to skin when heat relief is needed. The second is that water temperatures that are even just warm, begin to remove oil and moisture from skin. This is the same oil that skin is trying to produce to help itself heal. Think about this. After scraping the excess grease from a frying pan, what would you use to remove the remaining grease? Hot water, right? You would use dish soap too, but there's something about hot water that makes a difference over cool or cold water to get rid of all remaining grease. Hot water is great for cleaning frying pans, but it's not so great for skin after a burn. So avoid hot showers as a sunburn relief remedy.

"Caine"-based anesthetics have been used very successfully for years. You won't want to recommend these though, because a number of people have an allergic sensitivity to these products. Additionally, even if a person doesn't have an allergic reaction, everyone using these products becomes more sensitive to the thing they are trying to heal from: UV light exposure. From a commercial standpoint it doesn't make sense to offer these products to your customers. The point of this whole section is that it is best to stick with the two-step home remedy suggested above.

Legal Issues

Besides filling out a consumer injury form (in states where this is required), you and all other employees who have any knowledge of what happened need to sit down and write out exactly what happened from beginning to end. Did your client say anything afterwards? Did she refuse treatment? Did you call the next day to check up on her? If so, how was she feeling? Did you try again to persuade her to go to the doctor? Had she been using any medications that could make her skin sensitive to ultraviolet light? Does she have any medical conditions that could possibly be aggravated by ultraviolet light? (Some of this information can be derived from the records that you maintain on every individual who tans.) Was she using any type of perfume before tanning? (Some perfumes and colognes contain agents in them that can make skin burn easily.) Did the timer become faulty and remain on for longer than it should have? This is rarer today than it used to be because of the popularity of digital timers, but in rare instances even digital timers have failed as we discussed with our two delayed erythema cases. Did you give the customer a few more minutes because they requested it? If the customer got way more time than she should have, why was someone not aware of this situation until way too late? Was it a busy day? Were there a lot of phone calls? Was there some other emergency that prevented the operator from performing their primary duty? Did any other customer have any knowledge of what happened (e.g. overheard a demanding customer insisting on additional exposure)? Would they extend the kindness of writing a short statement of their knowledge of the issue?

Now, why should you as an employee be concerned about all of this? Because several months down the road you may get a letter from an attorney who represents your client (even though you thought the client was your best friend). Your name, among others (like the tanning company, the timer manufacturer, the plaza leasing space to the tanning company, etc.) will be listed in the lawsuit. Your recall a few months later will be fuzzy at best, so take the time now to record those event details.

Potential Risk Factors

We've spent a lot of time covering what kinds of things can occur from photochemical changes. We certainly devoted some space to delayed erythema as a risk factor.

Let's continue this module, *The Power of Light*, by going over other effects that can take place as a result of photochemical changes. There are so many effects that can result from repeated overexposures that we have assigned the next two chapters to covering those risks.



Chapter Four Review

1. In order to tan, skin needs UVA, UVB and UVC. **True or False?**
2. Depending on the tanning product being used, sometimes people can actually feel themselves becoming tanned. **True or False?**
3. IPD stands for Intermediate Pigment Diagnostics. **True or False?**
4. DPD can take up to a week and a half to begin showing. **True or False?**
5. Delayed Erythema can take up to three days to begin showing. **True or False?**

[View Answers...](#)

CHAPTER 5: Basic Risks to Eyes

Mounting research is beginning to show a number of medical and health advantages to moderate UV exposure. These advantages have become so evident that tanning salons in Canada are now allowed to advertise some of them. However, governing bodies in the United States and most other countries either prohibit the advertising of benefits or make it legally difficult to do so. Because most of these discoveries are relatively recent, it will take awhile for these governing bodies to evaluate the validity of the research.

If you are not working in a Canadian salon, you can still advertise the cosmetic advantages. However, your function in part, as a tanning equipment operator leans more toward protecting against the disadvantages of overexposure. What kinds of potential risks exist from overexposure? There are short-term risks and long-term risks to both unprotected eyes and to overexposed skin. Our desire in describing these potential risk factors is to help build a greater appreciation for the responsibilities of indoor tanning equipment operators and for developing an indoor tanning protocol. Let's consider first the importance of wearing eyewear.

A Word about Wearing Protective Eyewear

United States, Canadian and Australian governmental guidelines require that protective eyewear be manufactured to block out 99.9 percent of UVB and 99 percent of UVA. It's a high standard, but manufacturers of approved protective eyewear take it even higher by blocking out 100 percent of UV rays. They do this to provide some room for degradation in performance and so that the customer can be assured of the greatest level of protection for their eyes.

While governments, manufacturers and those in the eye care industry recognize and emphasize the need to protect eyes from overexposure to UV, the word doesn't seem to be getting out effectively. Those who seem to least realize the need are many tanning equipment operators and their customers.

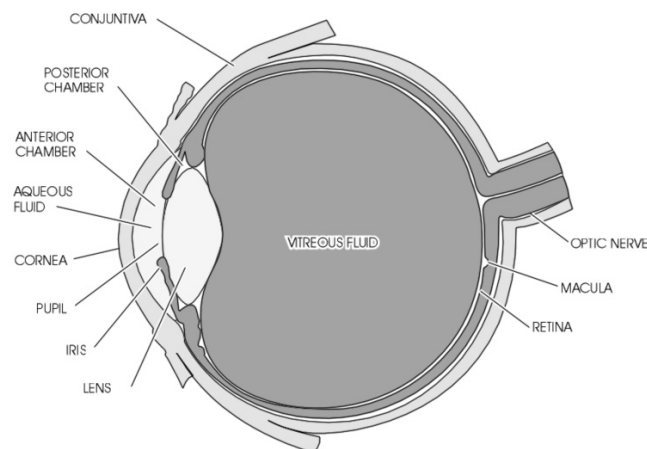
That sounds a little bold, we know. In surveys we have conducted in our classes over the years, an average of 60 percent of the attendees admitted to not wearing their eyewear all of the time. We are convinced that if most new tanning equipment operators are not always wearing their eyewear, the majority of their customers aren't wearing theirs either. We've also learned that these attendees didn't wear their eyewear because they never recognized the full extent of what happens to their eyes when those eyes are left unprotected.

That is something that we hope to change through the material in this chapter. UV light penetrates all the way to the back of the eyes and many people in our classes have demonstrated lots of problems with their own eyes, including showing little bumps; structures if you will, growing on the surface of their eyes; bad night vision, bad color vision, problems with visual acuity, cataracts and more. Having these problems doesn't mean that tanning was the direct cause. However, if a person hasn't been wearing their eyewear while tanning, tanning without eye protection can not be ruled out as a contributing factor.

Affected Parts of the Eye

Let's start with an introduction to the parts of the eye that can be affected by UV exposure. Below is a diagram of the eye.

Figure 5.1: Eye Diagram



Sclera — Simply put, this is the tough, shiny white part of the eye. It is the eye's protective outer coat.

Conjunctiva — This is a clear thin mucous membrane covering the sclera and the inner part of the eyelids.

Cornea — This is the clear, durable window at the front of the eye. The cornea helps protect the eye from germs, dust and other irritants. It also prevents damage to the lens and retina by filtering out limited amounts of UV light.

The cornea helps to focus light on to the lens, and must be clear for vision to be clear. It can become opaque or cloudy for several reasons, preventing light from passing through it in the proper way.

Lens — The lens is made up of about 35% protein fibers and 65% water. It expands and contracts itself to both focus incoming light onto the retina and to focus on images that are either close or far away.

Retina — The retina is like camera film for the eye. Light and images are projected onto the retina at the back of the eye. The retina has seven layers and an estimated 130 million cells to convert light into information that the brain can interpret. The brain creates images from that information.

Do I Really Have To Wear Protective Eyewear?

Many customers prefer alternatives to wearing protective eyewear, if they have to wear eyewear at all. After all, eyewear strings cause tan lines. They can also put a crease in a person's hair, or worse; sometimes they get tangled in a person's hair. Of course you can mention that it is easy enough to adjust the strings occasionally to minimize those lines and creases.

Perhaps that is not enough to convince them, as the eyewear may put too much pressure around their eyes, making their use uncomfortable. That's fine. There are those types of eyewear that are designed for use without strings.

Here are additional customer objections. "But my mascara will smear." All facial makeup should be removed prior to tanning for optimal tanning results. Do they really have to wear eyewear? The answer is emphatically "Yes."

"Can't I just close my eyes?" No. Take a flashlight, turn it on and cover the light with your fingers. Ask your customer, "Do you see any light coming through the other side of my fingers?" They will.

***"Can't I just
close my eyes?"***

"Your fingers are thicker than your eyelids are, and if it is coming through the thickness of fingers, can you imagine how easy it is to pass through someone's eyelids?"

You really don't even need a flashlight. Close your eyes for a moment wherever you are, and wave your hand repeatedly over your closed eyes. Did you notice any shadow passing over? Unless you are in a very dimly lit room, or you have problems with your night vision, you are going to notice a shadow passing over your closed eyes. The room's lighting generally won't be as bright as the light that would come from a tanning unit, and even if so, those lights are farther from you than tanning lamps would be during a session. Noticing light through closed eyes means that light is penetrating to the back of a person's eyes. So closed eyelids just don't provide effective protection at all.

There are other common alternatives that customers may appeal to, such as bottle tops, coins and even UV protecting contacts for eyes. The problem with these is that they only do a partial job at best. The idea is not to protect a part of the eye; it is to protect the whole eye. The idea is to form a "light-tight" seal around the eye. Because there are different facial shapes, it is really helpful to customers to have a variety of protective eyewear to accommodate each customer's needs. Make sure

the eyewear you choose for use, is approved by your governing agency.

Let's look at more alternatives that customers appeal to. How about the folded towel over their eyes? For the sake of argument, let's just say that that works. Talk about raccoon eyes — they'll end up with raccoon face! Okay, so they wanted to put a towel over their entire face instead, and they thought that might also make good protective eyewear. It really doesn't.

Here's how to minimize raccoon eyes: gently reposition the eyewear a couple of times during the session. It's not necessary to remove or even lift up the eyewear in order to do so. This will minimize or even eliminate the raccoon-eye effect. If they still get raccoon eyes, suggest they can use a facial bronzer, or just use their own makeup. It's either that, or some really unpleasant eye condition like cataracts or permanent loss of night vision.

Some have thought it is a little extreme to emphasize the consequences of not wearing protective eyewear. We beg to differ. It's the right thing to do. If the only reason you sold eyewear was purely for profit, who gains the greatest benefit — you, or your customers' eyes? It's really a disservice to avoid a strong emphasis on the use of approved protective eyewear.

Incidentally, if a customer tells you that they are not going to wear their protective eyewear, you have a moral, if not legal obligation to refuse tanning. You don't have to be rude about it though. Take a couple of minutes to build their appreciation for what might happen when they don't wear their eyewear. You can use information right out of this chapter to do so. Hopefully it will be enough to make a difference.

Short-Term Risks to Eyes

If the objection is that they're not convinced of the consequences, then consider the potential consequences in greater detail. The first consequence is short-term and pretty uncomfortable.

It's called *Conjunctivitis* or "**Pink Eye.**" Infection is the number one cause of pink eye, but tanning is an independent cause. UVB is responsible for producing this inflammatory response in the eye. It feels like sand or glass is in the eye, and that it can't be removed. That's because UVB can cause corneal burns, pain, light sensitivity, tearing, blurred vision, and of course, red eyes within 12 hours or less after the exposure.

Welder's Eye (also called Snow Blindness, Photokeratitis and Ultraviolet Keratopathy) — The eye may also feel like it is burning. The burning sensation usually doesn't show up until a few hours after the overexposure. This is sunburn of the eye (cornea specifically), and it can be aggravated by those who wear contacts.

In a simpler sense we could say that both of these conditions are a form of sunburn to the eye. You can burn the white part (Pink Eye) or you can burn the clear part, and there is a name for either condition when you do.

Long-Term Risks to Eyes

Long-term consequences to the eye from tanning are very subtle in development; so no one notices them developing in the short term. It might be years before someone would begin noticing problems with their vision. Just because no burning, pain or itching sensations or other previously mentioned short-term consequences, aren't developing, doesn't mean that long-term ones aren't. The development will be completely pain-free, and often permanent. Here are some long-term consequences that can develop from unprotected eyes.

Loss of Central Vision — The technical term for this is **Macular Degeneration**. The number one cause of this seems to be family history, and age is next. Those who are over 55 seem to be at greater risk. It is also more commonly seen in women than in men. UV light plays at least a contributing role in the development of macular degeneration, but may not itself be directly connected to causing it. For example, those who live their lives in sunlight during their teens and in their 30's are twice as likely to get macular degeneration, but blue light, which is found in both sunshine and in tanning lamps, is also strongly suspected.

Here's the problem: Central vision becomes distorted. Ultimately it can blur or blacken, leading to complete loss of central vision. If tanning is in fact connected, young tanners who are not wearing their eyewear today are greatly harming their vision, but they won't pay the price for another three or four decades. When it finally does arrive, it's irreversible. So trash your vision today, and pay for it permanently down the road. Would you like to see your grand kids one day, or drive a car when you are older? Consider wearing your eyewear.

Loss of Color Perception — There is a whole range of possibilities here from loss of clarity between colors to a complete inability to distinguish between colors (color blindness). There are a number of causes for any loss of color perception. If you haven't been wearing your eyewear while tanning, you can't rule this out as a contributing cause.

Loss of Night Vision — Night vision is what takes over when there's not enough light to discern between colors. Loss of night vision is without question, the most common eye-related condition that our students admit to in class. On average, half of the students in our classes will say that they have problems with their night vision. Symptoms include loss of contrast, loss of visual acuity, and the tendency for lights to glare or form halos, starbursts, or even smear. Most often this is a problem with the eye's lens. It can also be a side effect from a LASIK procedure or someone who has naturally larger pupils. The condition is permanent (except in some of the LASIK procedures), but can sometimes be reduced with special glasses.

Loss of Visual Acuity — At some point in every person's life, they are going to experience reduced visual acuity and need corrective measures, such as glasses or contacts. What we are referring to here is the visual acuity that is lost because something happened (e.g. trauma to the eye, or extensive exposure to sunlight or to tanning equipment).

In more rare cases, the cornea could turn white and interfere with acuity, or the retina could begin to fail or degenerate. Most often, loss of acuity is due to the lens of the eye not working like it used to. Not wearing eyewear in tanning equipment can cause this loss. We've had a number of people in our classes claim they had perfect sight a year or so prior to tanning. Then after tanning for about a year without wearing protective eyewear, they don't see very well at all. To clarify, they still see, but everything is fuzzy now.

We are not saying it will take a year. It might take only six months for some, or two years for others, but 60 percent of our attendees don't always use protective eyewear. About half of all attendees admit to having difficulty with their night vision, and visual acuity is just part of the problem with night vision.

It might be years before someone would notice problems developing with their vision.

Cataracts — Cataracts are a clouding of the lens of the eye. Proteins that make up the lens begin to unravel, get tangled and start clumping together. As this happens, these defective proteins begin to collect pigments. These pigments progressively cloud the lens and scatter the light that is otherwise properly focused onto the retina. This leads to blurry and hazy vision (another type of loss of visual acuity). Cataracts can also interfere with color perception, night vision, and left untreated, eventually lead to blindness. Generally, those with lighter color eyes (blue, green, hazel, etc.) are at greater risk for cataracts because their eyes are a little more sensitive than those with darker eyes; but anyone can get them. The nice thing is that cataracts are correctable surgically.

What causes cataracts? A number of things including traumatic blow to the eye, excessive exposure to heat, glaucoma, age (those over 60 are more prone), high blood pressure, kidney disease, smoking, the use of oral steroids and other medications, and of course, long-term or frequent exposure to ultraviolet light. Both UVB and UVA have been connected in the causation of cataracts. Even if they have cataracts, customers should be able to tan as long as they wear the appropriate protective eyewear. Remember that the protective eyewear is designed to block out 99% of UVA rays and 99.9% of UVB rays.

...the eye doesn't develop a tan over time...but it can develop unnatural growths on the surface...

The eye never develops a tan over time with repeated exposures, but it can develop unnatural growths on the surface of the eye to provide some measure of protection. Here are two types of eye growths.

Pinguecula — These are small, yellow, clear or white growths (bumps) on the white part of the eye (sclera). Due primarily to overexposure from ultraviolet light, the conjunctiva (the mucous

membrane over the sclera) begins to thicken. This bump itself is made up of degenerated tissue or sometimes a fatty buildup.

Pingueculae normally don't hurt, but sometimes they can sting, itch or burn. Outdoor workers in dry dusty environments are most prone to getting these because of all of the physical irritation in addition to UV irritation.

Pterygium — This is a somewhat triangular-shaped growth that forms on the white part of the eye (affecting the conjunctiva initially), usually on the tear duct side. They point toward the pupil. Once the growth touches the cornea, it has met the definition of a pterygium. Until then it's a pterygium in the making. Some eye doctors say that a pterygium is a pinguecula when it touches the cornea.

Left untreated they may stop growing, or continue growing until they cover up the pupil and lead to loss of vision. The number one cause is irritation from UV light. These itch and burn more than pinguecula bumps do.

They can be removed — first by scraping the excess tissue, then following with radiation therapy to try to remove the rest. Ultimately the eye still perceives this as an injury, and usually responds by growing another one within a year. It's still helpful to go through the procedure to prevent potential blindness.

Eyelid cancers — While the eye itself can experience long-term consequences, eyelids can also suffer from lack of proper protection. There are several types of eyelid cancers including basal cell carcinoma, squamous cell carcinoma, and cancers in the glands of the eyelid. These are much less frequent than the others, but they are possible.

A Word about Sanitation

So far we've only covered what happens from UV light exposure. We've mentioned nothing about what might happen if a customer comes in contact with unsanitary eyewear. We'll discuss proper sanitation procedure later, but it is extremely important that eyewear be sanitized after every use by the customer.

One of the risk factors from unsanitary shared eyewear is pink eye. Pink eye can be caused by overexposure to tanning lamps, but as we mentioned earlier, infection is the number one cause.

Eyewear brought in by customers still needs to be one of the government approved types. If you are not familiar with the type of eyewear being presented to you, don't allow it to be used. Let the customer know that because your facility is extremely concerned about the use of appropriate protective eyewear, you only allow use of the kinds of eyewear that your facility specifically approves. It's the only kind that your facility is willing to sell or provide for use.

If the customer does bring in government-approved eyewear, be sure to check it for any missing elastic strings, cracks or other damage that would make the eyewear unsafe for use. Also check the eyewear for sanitation. If it's not clean, clean it for them. Some government agencies require that you inspect eyewear and sanitize as necessary. You could potentially turn this into a good customer service practice. Let customers with dirty eyewear know that you are going to provide them with eyewear

for this tanning session, and you will have the customer's own eyewear sanitized and ready for the next use when they return to the front counter.

Are there any sanitary issues with single-use eyewear? Yes. You wouldn't think so. However, if single-use, disposable eyewear is available at your facility, make sure your customers know that they are designed for single-use only. Customers are notorious for trying to use single-use eyewear on multiple occasions, never considering what other germ-filled things have touched that disposable eyewear between tanning sessions. Bacteria from their fingers will have had plenty of time to spread across the contact surface of the eyewear and infect their eyes on the next use. Customers also don't consider the importance of achieving a light-tight seal around the eyes. The adhesive on single-use disposable eyewear is only designed to work one time.

Summary and Follow-up for Eyes

We've covered lots of potential consequences for unprotected eyes. Does this help develop a respect for the need to wear approved protective eyewear? We hope so. Maybe you're concerned though about how effective your eyewear is. Is it really doing the job that it's intended to do? Here are some common classroom questions.

My eyewear is made of light-colored plastic, and I can see the lights really easily. Is it protecting my eyes?

It's common for FDA approved eyewear to be manufactured so that you can see through it. You're supposed to be able to see through it, in case there are any problems. Toward the beginning of this chapter, we mentioned that eyewear manufacturers block out all of the ultraviolet light. They like to allow visible light to pass through though. Aside from a legal requirement, this provides consumers with a measure of comfort. If they couldn't see at all during the session, some might get claustrophobic.

Will I hurt my eyes during the tanning session if I leave them open?

No. This is similar to the last question. Just remember that all ultraviolet light is being blocked out by approved protective eyewear.

What about the stickers that are available? Do they really protect eyes?

They absolutely protect eyes just as well as any of the other protective eyewear. Government agencies wouldn't approve them for use if they didn't. You can comfortably leave your eyes open during the entire tanning session, if you so desire.

Sometimes the color of a pair of protective eyewear will fade over time. When that happens, is it losing its ability to protect a person's eyes?

That's an interesting question. We took the liberty of presenting this same question to a protective eyewear manufacturer. They tested their own brand of eyewear in response to this question.

The results of their testing? Only one or two colors showed a minute loss of

protective value, but even with the loss, the protective value still well exceeded the FDA's minimum standards of protection. Remember eyewear manufacturers make their eyewear so it blocks out 100 percent of UV light; so there is some room for degradation.

Our answer? In general, depending on the frequency of use, a good standard is to change out your eyewear at least once a year. If before the year is up, you notice any color change, or anything else that might cause you even slight concern, change out the eyewear. As cheap as eyewear is to replace, and as irreplaceable as your eyes are, there's no need to retain aging eyewear.

We've only discussed potential risks to unprotected eyes to this point. In the next chapter we'll consider potential risks to skin as well as various conditions that can be caused by or aggravated by UV exposure.



Chapter Five Review

1. Surveys show that most new tanning equipment operators don't wear their protective eyewear. **True or False?**
2. Seeing light through closed eyelids means that light is penetrating to the back of the eyes. **True or False?**
3. Raccoon eyes can be minimized by repositioning the eyewear gently a couple of times during the session. **True or False?**
4. Customers who refuse to wear eyewear should have their tanning time reduced by two or three minutes to prevent injuring their eyes. **True or False?**
5. Pink eye can be caused by tanning without protective eyewear. **True or False?**

[View Answers...](#)

CHAPTER 6: Basic Risks to Skin

Some of the material in this chapter may seem a little technical. Don't worry. We're not trying to turn you into doctors, or even professional diagnosticians. Our goal is to provide you with a foundation if you will, for understanding what can happen to skin from overexposure to ultraviolet light.

We'll start by considering common conditions, spots in particular; that tanning can reveal, make more prominent, or aggravate. Beyond that, we'll look at a few miscellaneous disorders that can be aggravated by exposure to UV light. Finally we'll bring up various long-term risks from overexposure to UV light.

Conditions — I See Spots!!!

Your customers will bring in a variety of skin spots for you to loot at. They will be convinced those spots came from your salon because they never saw them before they started tanning, but now they do. They won't consider that tanning may only have revealed the presence of a pre-existing condition. They may instead be thinking that you have unsanitary equipment. They definitely want answers to what they are and how to get rid of them.

We will break up the first half of this chapter into white spots, brown spots and red spots. One thing to keep in mind is that white and brown spots often are due to a pigment producing disorder. That is, they either produce too little or too much pigment.

White Spots

Tinea Versicolor — The layman's terms for this are "white spots" or "sun spots." Tinea versicolor develops on the scalp as a tissue-thin fungal coating and drops down on the upper body. Its only harm is that it disables that small area from tanning, creating a white spot. Extra strength dandruff shampoos are commonly used to get rid of them. Some prefer sun spot creams that come from a tanning distributor. Others use a broad spectrum anti-fungal cream available to the general public. The affected person's doctor can also prescribe a treatment for more stubborn spots. They may be annoying, but they are not permanent.

Vitiligo — This disorder is characterized by irregularly shaped white patches of skin, surrounded by dark borders. The white patches are often clearly defined and distinctive in appearance. The spots are sensitive to UV exposure because the affected melanocytes have become "lazy" if you will, and are degenerating.

Doctors often use a lotion based form of *psoralen* (a powerful medication that makes skin super sensitive to UV light) causing second degree burns to develop on the specific affected areas. The idea is to reactivate those dormant melanocyte cells, and cause them to start producing melanin again. If it works the white spots will gradually begin to match the surrounding areas. If it doesn't, cosmetic treatments can make them less noticeable.

Pressure Points — These can be frustrating for the regular tanner, however, they are the easiest type of white spot to correct. Pressure points are spots that have become white due to the tanner's positioning on the acrylic sheet. They show up on the shoulders, tail bone area or the backs of calves, or even all three.

Before listing the cause, our classroom attendees have often thought these spots were caused by a person's physique (large and heavy or thin and boney), or a person's physical condition (from body builders to old and frail). While it's easy to imagine any of these possibilities, the answer is anyone who lays still on the acrylic sheet while tanning; especially those who go to sleep.

While lying still, the pressure applied to one or all of these areas is depriving skin from receiving the necessary oxygen it would otherwise get from the blood stream. Oxygen is essential to the tanning process. The cure? Move. Shift around occasionally on the acrylic to allow blood to circulate in those areas. Don't roll over though, as this increases the risk of cracking the acrylic sheet.

What an uncommon name for... reverse freckles.

Reverse freckles — The technical name for these spots is Idiopathic Guttate Hypomelanosis (IGH). What an uncommon name for a very common condition! Reverse freckles show up as tiny, porcelain-white spots that are about the size of freckles. These freckle-sized spots show up mostly on shins and forearms, but can show on

other sun-exposed areas, like the face, neck and shoulders. Like vitiligo, they are distinctively noticeable because the color of the surrounding skin is definitely darker than the white spot itself. The difference is that vitiligo is usually much larger in appearance and often symmetrical, while IGH spots always seem to stay freckle-sized, and may not be completely symmetrical in appearance. The bad part is that the spots never go away.

What causes it? Doctors only speculate right now that it could be due to extensive sun exposure (wearing out the ability of melanocytes to produce melanin in the affected area), but they can't be certain. They seem to develop initially in fair-skinned women who are in their 30s and 40s, but it is seen almost universally in elderly men and women. Treatment is not necessary, as this doesn't appear to be disease related.

Brown Spots

Hormonal changes — Actually hormonal changes could lead to either brown spots or white spots. While pregnant women can be affected by these various spots, others can too. Those who are using oral contraceptives, those who are in their late teens to very early 20s and those who are in menopause can all experience these uneven patches, whether lighter or darker.

Melasma — Also called chloasma, this is a disorder where too much pigment is produced in patches of skin. The affected areas are primarily cheeks and the bridge of the nose, but it can also show up on the upper lips and forehead too. Melasma usually shows during the end of a woman's pregnancy. However, those with thyroid disease, Addison's disease (adrenal gland disease), autoimmune disorders, those experiencing hormonal changes (as just mentioned) or reactions to various medications can also be affected. None of these spots affect a person's health — they are only cosmetically noticeable.

Age Spots — Like many people, age spots have a lot of nick names, including liver spots and sun spots. The medical community may be more prone to calling them "solar lentigines." Age spots are flat spots that are light brown to black in appearance and appear most often on hands, arms, shoulders and face.

Liver spots are associated with age and by years of overexposure rather than the liver. Various proteins and fats break down in skin through oxidation and free radical damage. Normally the body rids itself of these by products, but as a body ages, it isn't as efficient at doing this. The result is that cells absorb *lipofuscin*, a brownish pigment that develops from those leftover damaged proteins and fats. Cells are incapable of getting rid of this stuff, and eventually they collect into little pools in various places in the body, including the skin.

Lipofuscin is also found in earwax, giving it a characteristic yellow–brown color. It is responsible for the yellowing in a person's eye as they age. Lipofuscin can collect in many areas, especially the heart.

Excessive sun exposure seems to be the primary culprit for bringing out the presence of this “other brown pigment” in skin. People can start getting them as early as their 40's but usually they take longer to begin showing. There are a number of medical remedies for lightening or removing liver spots should a person find them undesirable, but the spots themselves are harmless.

Excessive sun exposure seems to be the primary culprit for bringing out the presence of this “other brown pigment” in skin.

Freckles — You know what freckles are, but perhaps never considered what causes them.

Remember those melanocyte cells we discussed earlier in the chapter on Skin and Skin Typing? If you look at the illustration again, those melanocyte cells look like little blobs with tree branches growing out of them.

The purpose for those tree branches (called “dendrites”) is to spread melanin evenly throughout the surrounding skin. Freckles are a sign of melanocyte cells without any tree branches. They still respond to UV light, but all of the melanin travels directly upward toward the surface. The result is a pool of melanin that responds pretty well to tanning. Freckles tend to get darker in the summer and lighter in the winter. They are not cancerous in anyway.

Moles — Like freckles, moles are generally harmless brown spots too. Sometimes they are flat and sometimes they are raised, and can vary in color from a pinkish color to brown and even black. They also vary in shape and size. It's completely normal to have anywhere from 10 to 40 moles on your body.

What causes moles? Generally melanocyte cells are spread evenly throughout skin. Moles are melanocyte cells that have clustered together. Clustering causes moles to form. Sun exposure can cause moles to darken.

When are they a cause for concern? When they become inflamed, begin to itch, burn, or cause pain, or if they begin to get crusty, ooze or bleed. When that happens, it is time to get a doctor to take a closer look. In the absence of physical irritation, there is another common tool that can be used to determine whether or not to go see a doctor. The American Academy of Dermatology developed a very basic way to determine whether or not to have some concern about any unusual

mole. They call them the ABCD's of moles.

A – Assymetry. In other words there is no way to divide the mole in half and get two equally shaped parts.

B – Border. That is, to say that the outside of the mole doesn't have a clear definition like a standard mole would.

C – Color. Is there an unusual color more than one color?

D – Diameter. Generally, moles are supposed to be no larger than 6 mm, or the width of a pencil eraser.

If a mole meets any one or more of the above criteria, it is worth having a doctor look at it. It never became widely accepted, but we thought one November 1999 published medical report (The Clinical Diagnosis of Early Malignant Melanoma: Expansion of the ABCD Criteria to Improve Diagnostic Sensitivity) should have become part of the official ABCD standard. It proposed that an E and an F be added. Here was their suggestion:

E – Evolutionary changes. That is, it used to look like a normal mole, but now has developed into something distinctly different. What specifically? Just about anything. So maybe it does start burning and hurting where it never did before. Maybe it never was elevated before, but it is now.

F – Funny looking. The report actually said “funny-looking lesions.” A lesion is an unusual spot, if you will. So if it just looks weird, get it checked out.

Post-inflammatory pigmentation — This is a discoloration in skin at the site of a healed or healing injury. Acne the most common cause, but other types of injury like scrapes, cuts, burns and some types of dermatitis can cause the same result. Darker skin types are more prone. The most stubborn discolorations can persist for up to 18 months, especially with repeated excessive sun exposure.

You could say that melanocyte cells sometimes get confused when they respond to an injury as though they were responding to sunshine.

No treatment is needed unless, as with age spots or other cosmetic unpleasanties, a person finds them to be unacceptable. Common treatments include laser therapy, skin lightening creams and exfoliants such as glycolic acid.

Red Spots

Perfume and Cologne — Have you ever noticed a customer with red spots on their neck or forearm? Did you ever wonder if they had been scratching the area? Actually there are a number of perfumes and colognes that cause skin to burn more easily than normal. Your customers should be advised to keep their skin free from anything that could either block or strengthen the effect of UV light.

Polymorphous Light Eruption — (Also known as Sun Poisoning) — This is the

most common of all the excessive–exposure related conditions. It usually only erupts after prolonged or intense exposure to UV light. It takes anywhere from a few hours to a few days to start showing.

Sun poisoning is characterized by itchy red bumps on sun–exposed surfaces, which last up to two weeks after the exposure. If a person continues to tan before the condition clears up, the bumps could spread to areas of the body that are not typically exposed to the sun. When the bumps have cleared, tanning should be minimized initially and built up slowly. In the northern hemisphere most cases develop in March and April. That’s the time everyone thinks they can pick up where they left off tanning about six months before.

Dermatitis — This means “irritation or inflammation of the skin.” That seems to be the case as Itching, redness, inflammation; dry scales and rashes on patches of skin seem to be the common symptoms of most types of dermatitis. Often called eczema (a one-size-fits-all term for the many types of dermatitis) some types are helped by UV exposure and others are aggravated by it.

Rosacea — often referred to as “Acne Rosacea,” this is not the typical acne that would be found on a teenager. Common teenage acne tends to inflame oil glands and hair follicles anywhere on the body. Rosacea initially dilates facial blood vessels, causing a general flushing and knobby, pimple–like appearances on the forehead, cheeks and nose. Lighter skin types are most often affected.

There are lots of triggers for an episode of flushing and irritation, including diet (e.g. alcohol, hot beverages, spicy foods, and dairy products), exercising, and various skin care products with alcohol or that don’t say “non-comedogenic.” Add tanning to the list, because it too will trigger an episode.

Couperose — Many people think they have rosacea, but in fact don’t. They just have sensitive skin, or couperose, a skin condition that is one step down from rosacea. Couperose gives a person a reddish complexion, as patches of redness develop due to the presence of small, dilated red blood vessels. Couperose occurs due to poor elasticity of the capillary walls.

Normally when there is a sudden rush of blood to the skin, capillaries expand to receive the increase of blood, then contract back to their original state. When these capillaries become weakened, they expand, but don’t contract easily. This results in the appearance of red lines and flushing. Couperose skin can be aggravated by all of the same things that aggravate rosacea.

Spider veins — This condition is two steps down from rosacea. The technical term for this is *telangiectasia*. Spider veins most commonly develop on the face and thighs and are generally red (sometimes blue) in appearance.

Spider veins often get confused with varicose veins. Varicose veins are larger, dark purple or blue in color, and are usually located in the legs. The biggest difference between varicose veins and

...spider veins often get confused with varicose veins.

spider veins is the cause. Varicose veins are caused mostly by pressure. Spider veins usually have a hormonal cause (specifically estrogen imbalance). This is why more women get spider veins than men do.

Can tanning affect spider veins? Yes. In fact spider veins can both be caused by, and aggravated by, excessive sun exposure. Those with lighter skin types are naturally more prone to getting them because of their sensitivity to sunlight. Moderation as always is the key to minimizing the risk of getting them.

Other Miscellaneous Disorders

Herpes Simplex — Normally referred to as “cold sores” or “fever blisters,” this viral infection stays with you for life. Only the symptom gets treated. The primary factors that trigger a recurrence are fevers and sun exposure.

Systemic Lupus Erythematosus — This is an autoimmune disorder, which means the immune system often attacks the body. UV exposure induces flares and sometimes new lesions in the skin.

Albinism — Albinism is a rare hereditary disorder in which little or no melanin is formed. It affects all races, and besides skin, also affects hair (turning it white or pale yellow) and eyes (causing them to be blue or gray). Skin is very intolerant of UV exposure, so they can burn very easily if they are not careful.

Xeroderma Pigmentosum — This condition is characterized by a deficiency in the number of enzymes that the body uses to repair DNA damage done by UV light. People with this deficiency show a thousand times greater risk for UV-induced skin cancers than people with normal skin.

Students in our classes sometimes confuse this one with albinism, but albinos don't produce melanin very well. Albinos burn easily, but their skin cells have a built-in repair mechanism like everyone else. Those with xeroderma pigmentosum may have melanocyte cells to produce melanin, but they have zero ability to repair any skin damage.

There are numerous other conditions, diseases and disorders that can be aggravated by exposure to UV. For academic reference, examples include: AIDS, actinic prurigo, atopic dermatitis, Bloom's syndrome, chronic actinic dermatitis, Darier's disease, dermatomyositis, Gorlin's syndrome, hydroa vacciniform, kwashiorkor, lichen ruber planus, pellagra, porphyria, Rothmund-Thomson syndrome and solar urticaria. The common thread among these (besides the aggravation factor from UV light) is the rarity, and that most are unlikely to be seen in a tanning salon.

Potential Risks to Skin — Long-Term

Photoaging (premature skin aging) — Recall that the outer skin layer continuously sheds and replaces itself. Photoaging slows the shedding, but not the production of

new skin cells. The result is a thickening of the outer skin layer.

UVA is responsible for the effect, but various treatments available today can help...

Photoaging also causes skin to lose its elasticity. UVA is responsible for the effect, but various treatments available today can help, including: Dermabrasion, chemical peels, cryosurgery, collagen injections, Retin-A, Ethocyn, and various types of light therapies.

Actinic Keratosis — This is the most commonly diagnosed and treated condition of all skin

conditions. Actinic keratoses commonly show up as white, brown or pink to red, rough scaly spots. Most are caused by excessive exposure to the sun. They don't generally hurt, but some can give an itching or burning sensation. Those most prone to developing these spots are fair-skinned people. The most common sites are the nose, forehead, ears, neck and hands.

Actinic Keratosis has several alias names, including solar keratosis and senile keratosis. Probably the most common alias is "pre-cancer." "Pre-cancer" gives the idea that these are skin spots on the brink of turning into a deadly skin cancer if they are not taken care of right away. It is possible for them to turn into squamous cell carcinomas (a type of skin cancer with a very low death rate), but they rarely do. In fact, it is estimated that less than two percent of all actinic keratoses ever turn into a squamous cell carcinoma, and of the ones that do the death rate is so low, the actual numbers are unknown. To minimize this condition somewhat further, 25 percent of them simply correct themselves and disappear. The rest of them stay put without any significant changes.

Skin Cancer

Extreme Messages

However, as we have seen so far, the public is misinformed with grossly exaggerated messages, including messages about skin cancer.

It has been said by some that "all tanning equals damage to the skin." This is an overstated message that can cause confusion. What if some health authority issued a strong warning about the evils of breathing? Be aware — there are contaminants in the air. Some have worried that humans breathe out carbon based emissions, which might be perceived as being harmful to the environment. We breathe in pollutants, and we breathe out pollutants. In or out; because it is so unhealthy, we should all stop breathing.

What if some other health authority declared that all exercise equals damage to the body? Physical exertion can potentially "damage" muscle tissue. Because of the risk factors involved, we should also stop exercising.

Do you see how the message that "all tanning equals damage to skin" could be an overstatement? The nuanced message is that any sun exposure leads to damage,

and ultimately to skin cancer, so all sun exposure should be avoided. Yet breathing is essential to health and survival. Our bodies, for those who can tolerate it, need some exercise. Exercise can be taken too far, but we're suggesting moderation is key rather than excess. Likewise for skin. For those who can tolerate it, moderate exposure is better than either too much exposure or extreme exposure avoidance.

There are exaggerated messages about skin cancer too. You've seen the messages that suggest you can die on the golf course by not wearing a hat, implying that skin cancer develops rapidly and that your chances of survival are as unlikely as being struck by lightning. How about the one that showed a tanning bed modified to look like a coffin? Remember the commercial where someone was text messaging another, delivering the profound message that tanning beds are for losers? Let's not forget that medical declaration that tanning is as bad as mustard gas and arsenic.

Sometimes repetition is the key to clarity. Let's be perfectly clear. We are not suggesting that anyone receive any amount of exposure beyond what is appropriate for that individual. We are also not suggesting that those who cannot tolerate any exposure (such as individuals with skin type one, or those with medical conditions described earlier in this chapter) should get any exposure at all. Your job in part, as an operator of tanning equipment, is to become a gatekeeper who prevents overexposure. What we are saying, is that messages advocating complete sun-abstinence for all, are rather extreme, particularly for those who can tolerate moderate UV exposure.

Skin Cancer – What Does it Take?

All of that being said, it's clear that some types of skin cancer are linked to excessive UV exposures. But how does the whole process work? Does it just amount to tanning bed use? What does it really take to get a skin cancer?

Homework Assignment

This is a fun classroom exercise, and we think you can have fun with it too. What will you need? A pen, a sheet of paper, and a little imagination. Are all of those available? Good, let's get started by using your imagination.

You are back in school. Remember art class when you were younger? Surprisingly, this is not a favorite subject for many in our classroom sessions. That's okay; it doesn't have to be a favorite subject, and we will not require sophisticated talent and skills to make this work. Your first assignment is to draw a circle on that sheet of paper. What size? Let your imagination determine the size. Let's have a look at that circle.... Wow — now that is a very nice circle!

The next step is a little tougher, but it's not too terribly difficult. Starting at the top of the circle and working your way to the bottom of the circle, draw a squiggly line. Your squiggly line should touch the top and bottom of the circle when you are done, and look something like this:

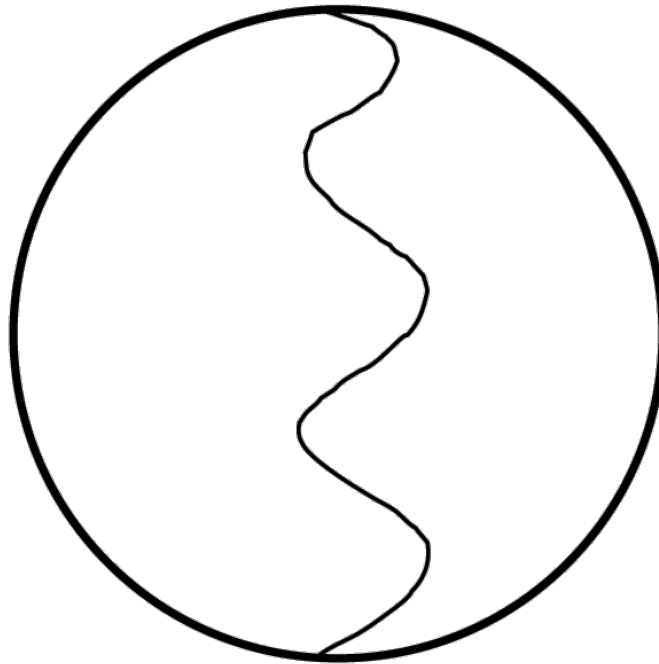


Figure 6.1

That's not too challenging, is it? Okay, the next step is the toughest step. The next step is to draw another squiggly line from top to bottom. However, each curve of this next squiggly line should be facing a curve in the first squiggly line. It should look something like the following very professional looking example:

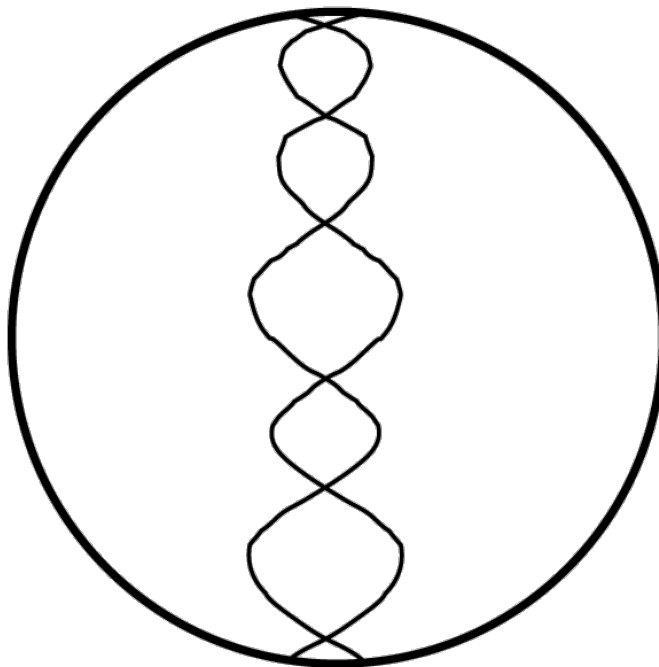


Figure 6.2

Did you do it? Awesome job! Those are some amazing squiggles! Now, the next step is so fun, you just might not want to quit. No kidding. Start dotting the circle repeatedly. Go ahead...dot, dot, dot, dot, dot, dot...Okay, you can stop now. Many in our classes aren't able to put their pens down right away. According to one therapist we consulted, the reason for this dotting phenomenon is that it is a stress

reliever. If you find that is the case with you, please continue dotting. Many have found this training exercise to be quite therapeutic.

Once you are happy, realize that you have just drawn something with meaning. It represents a skin cell, so we really are going somewhere with this. The squiggly lines represent DNA in the cell and the dots are special enzymes that are naturally found in each cell.

Now there's one more line that has to be drawn. It too is a squiggly line, but this one will start outside of the cell and cross over a single strand of DNA like this:

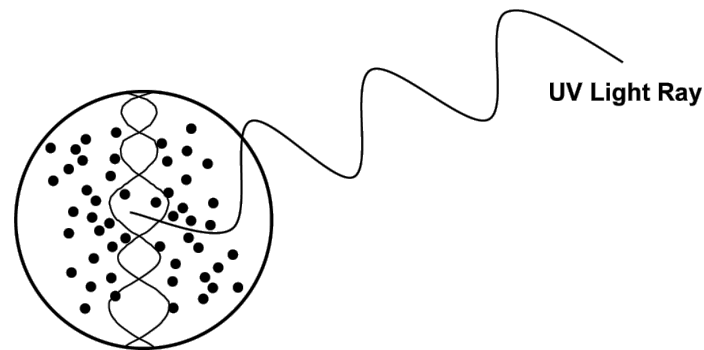


Figure 6.3

Uh oh. What are we illustrating here? Is this UV light ray damaging the cell? Yes it is. This light ray could represent a number of things. Microwaves or infrared could do the same thing. Various chemicals could invade the cell and have the same impact. Viruses can also break DNA strands.

What happens when a strand of DNA is broken? The cell is damaged and can't function like it normally would. The medical term for this cell is to say that it is "retarded." That doesn't mean that it is unintelligent or slow. It's just not going to function as it was intended to function.

Do you remember when we were talking about how some doctors say that all tanning equals damage to the skin? This is what they are referring to. What they don't tell you is the rest of the story. The rest of the story is that those dots are special enzymes, whose sole function in life is to repair DNA damage and restore the cell to its original order.

So if the body is so efficient at preventing skin cancer what does it actually take to get a skin cancer? It takes three things. All three things have to be in place or there will be no skin cancer. But to facilitate explaining this, you need to draw another circle. You're becoming a cell-drawing expert now, so feel free to add those two squiggly lines. When you're done with that, add as many dots as you would like, as before. Fantastic. We're almost done.

We're going to change the last part a little bit. Instead of drawing a UV light ray that goes through just one side of the DNA structure, this time your light ray should go through both sides of that DNA structure as you see below.

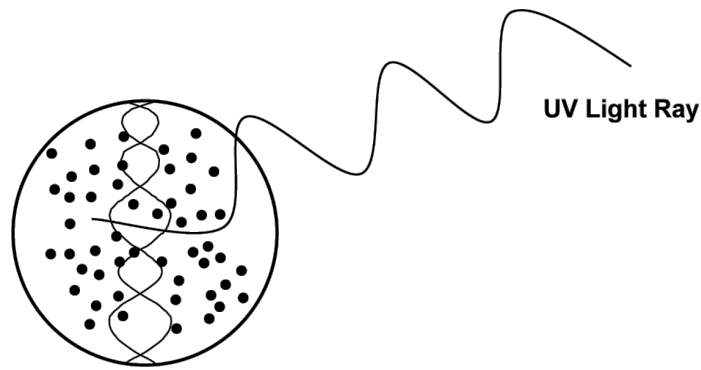


Figure 6.4

Does that mean this cell is retarded too? Yes, but this person is not necessarily going to get a skin cancer either. A common response is “you’re making it sound like it’s impossible to get skin cancer.” It is not impossible to get skin cancer, but skin is the most resilient organ of the body. Three things or steps are needed for skin cancer to develop. All three steps have to take place or you’re not getting a skin cancer. What are those steps?

Step One — Specific site damage. That is to say that DNA has to be damaged in very specific places, or you’re not getting a skin cancer.

Step Two — Cell must live. Cells that get damaged on very specific parts of both DNA strands can no longer be repaired. Their normal response is to prevent turning into a cancerous cell by committing suicide. The technical name for cell suicide is “apoptosis.” Unfortunately damaged cells don’t always kill themselves. They need certain proteins and enzymes to finish the job, or they will forever remain risky. A risky cell still needs step three to come into play or it will never turn into a skin cancer. What is step three?

Step Three — Tumor-promoting agent. Tumor-promoting agents are things that enter retarded cells and provide them with instructions to start becoming cancerous. What kinds of things instruct retarded cells to start becoming cancerous? Cigarette smoke. Paint thinners too. Pesticides, exhaust fumes from cars, asbestos, radon and a host of other things. When retarded cells actually become cancerous, they start dividing and making copies of themselves like any other normal cell. Eventually they enlarge into skin cancers.

How long does it take to show up? From the point of damage and reinstruction, it takes about 20 years on average. Fast-developing skin cancers might only take 10 years. Slower ones might take 30 or even 40 years.

What to Do for Those with Skin Cancer

So how do you respond when someone comes into the salon with skin cancer? In some states, current tanning regulations prohibit tanning anyone with skin cancer. Where regulations don’t exist, we suggest a best-practices business approach — don’t tan them. What about those who used to

...we suggest a best-practices business approach — don’t tan them.

have skin cancer, but have had it removed? We suggest the same approach — don't tan them either.

The reason for avoiding this is purely liability considerations. What if they were to decide to sue you later because another skin cancer showed up after they tanned at your facility? While it's easy to respond to this, it may cost you hundreds or even thousands more than the customer would ever be worth.

Do those who have had skin cancer in the past still need UV exposure? Often, yes. It's just not your job in a commercial environment to offer it to them. Maybe some would consider this to be a form of discrimination. We would answer that it is not — it is really just a form of responsible protection for both the customer and for the business. You don't have to turn them completely away. You could offer spray tanning services, self-tanning lotions, sunscreen or even sun block if any of those are available. Just leave the UV form of tanning alone.

Skin Cancer — Types and Characteristics

There are a number of skin cancer types; many of them, like Kaposi's Sarcoma and melanoma, have little or no connection to excessive UV exposure. The vast majority are connected to excessive UV overexposure. We'll discuss three broad categories, two of which are clearly connected to excessive UV exposure: Squamous cell carcinoma, basal cell carcinoma and melanoma.

Squamous Cell Carcinoma

Carcinoma is just another word for "cancer," the kind of cancer that you would find in the outer layers of an organ; in this case, skin. There are different types of squamous cell cancers, but the most common identifying characteristic is open sores that don't heal well. They might start out looking like a small wart feeling a little on the tender side. They might begin to develop a bothersome itch or even hurt. Eventually they become open sores that leak, ooze, then heal with dry crusty remains. This process of opening and healing is repetitious. They can also show up in a variety of colors including, white, beige, dark brown, black, or even blue and/or gray.

Squamous cell cancers are the result of UVB overexposures. Excessive sun tanning may be the primary cause, but they can also develop from burn scars, actinic keratosis, and overexposure to x-rays. Most, about 90 percent, are found on sun-exposed areas of the body. The remaining 10 percent develop on internal body parts like the bladder, esophagus, lungs, nasal cavities, and mouth.

Squamous cell cancer is the second most common of all cancers, not just skin cancer. Fortunately, it's a very treatable kind, rarely leading to mortality.

Basal Cell Carcinoma

Basal cell cancer is by far the number one cancer of all cancers in terms of sheer volume. Twice as many basal cell cancers are detected as squamous

***Twice as many
basal cell***

cell cancers. There are different types of basal cell cancers too, but the most common identifying characteristic is a volcano-like structure. Don't let your imagination get carried away here. Think "structure," and not a perfect resemblance at that.

These volcano-like structures tend to be rather smooth and shiny in appearance. They rise up from the base layer of the epidermis, form a shiny rolled ridge at the top, then form a valley or depression in the center.

Like squamous cell cancer, basal cell cancer is mostly caused by overexposure to sun, but some form on other areas. Like squamous cell cancer, some appear on areas of skin not typically exposed to sunlight. Those most likely to get this cancer are those skin types one through three who normally work indoors, then enjoy major, national summertime holidays by staying in the sun for far longer than their skin can tolerate.

The nice thing about basal cell cancer is that it too is very treatable and the most curable form of cancer. Less people will die from this kind of cancer than from squamous cell cancer, probably because they grow more slowly than squamous cell cancers do. It's ironic that the number one and number two cancers of all, are caused by excessive exposure to sunlight; yet less people will die from these cancers than most other types of cancer.

Melanoma

There is no such thing as a benign melanoma. It is by far the least common of the three main types of skin cancer, but is also by far the most dangerous. If we were to describe melanomas, we could say that they are dangerous, spreading tumors that start in melanocyte cells. Most of them have melanin in them. They are often located in moles, which is the reason many people become concerned about moles. Thanks to the medical community for developing the **ABCD's** tool for determining when to be concerned about moles.

It is common to find them on an eye, or any skin surface, including under nails, and in the palms or soles of those with darker skin types. The curious thing about melanoma is that it is most likely to grow on skin areas that are not normally exposed to sunlight. Areas like the bottom of feet, between toes, under the arms or groin area. If detected early enough, they are usually easy to treat.

Other factors seem to provide a much clearer connection to melanoma. Family history for example, is one of the strongest risk factors for developing a melanoma. If there is a history of melanoma in your family, you are more likely to develop a melanoma, even without a number of odd-looking moles.

What other circumstances increase a person's risk of getting a melanoma? Those who have had kidney transplants or who have Hodgkin's disease. Interestingly, those who don't get enough exposure to sunshine are at greater risk. Smoking and a high fat diet also add to a person's risk. Those who have had melanoma before, or who have or have had cancers of the breast or brain share a common increased risk

***cancers are
detected as
squamous cell
cancers.***

for melanoma. One study showed that 25 percent of the rats that had been given the common antibiotic Doxycycline developed melanoma. That's curious enough that it deserves to be researched further. Even the use of sunscreen has been shown to put a person at increased risk for developing melanoma.

We're not suggesting that everyone start tanning their customers to prevent melanoma. Exposure to UV, either naturally from the sun or from artificial sources such as sunlamps, is a known risk factor for skin cancer. (World Health Organization; <http://www.who.int/mediacentre/factsheets/fs287/en/>) Those who are pre-disposed to developing melanoma or other skin cancers should not tan without receiving a doctor's written permission. For potential liability reasons, salons should also avoid tanning anyone who has or has had any kind of skin cancer, even with a doctor's permission.



MODULE TWO REVIEW

1. In order to tan, skin needs UVA, UVB and UVC. **True or False?**
2. DPD can take up to a week and a half to begin showing. **True or False?**
3. Delayed Erythema can take up to three days to begin showing. **True or False?**
4. Seeing light through closed eyelids means that light is penetrating to the back of the eyes. **True or False?**
5. Tanning without protective eye can cause little bumps to form on the white part of a person's eyes. **True or False?**
6. Tinea versicolor is a kind of white spot caused by a fungus. **True or False?**
7. It's usually larger people that tend to get pressure points on their bodies. **True or False?**
8. Age seems to be a factor in the development of "Reverse Freckles." **True or False?**
9. Red spots on the neck or forearm are a sign of perfume left on skin during tanning. **True or False?**
10. Exposure to UV light, either natural or from sunlamps is a known risk factor for skin cancer. **True or False?**

[View Answers...](#)

MODULE 3

THE ESSENCE OF CUSTOMER CARE

CHAPTER 7: The Essence of Tanning Performance

When we say “tanning performance,” we’re referring to personal performance or job performance. One of the fastest ways to kill business at the salon is through inattentiveness to your work performance. Maybe you’re thinking right now of co-workers who could really use the training in this section. Really we’re just setting a standard that applies to everyone who works in a tanning salon environment.

This chapter supports that standard by listing some basic customer service principles for the tanning industry. Admittedly, whole courses could be, and have been taught on these various principles. We’ll just provide the essence of these principles, then get into tanning specifics in the next two chapters.

Performing with Appearance

Almost everything you do at the salon involves dealing with people. Even cleaning tanning equipment and washrooms mean something to your customers. Floors have to be vacuumed or swept. Lamps have to be changed too. These tasks communicate messages about you to your customers.

Another item customers won’t be able to avoid noticing is personal appearance. In a business sense, personal appearance refers to something basic, like personal cleanliness, grooming and clothing. Showering or bathing before coming into work is a basic customer expectation. Clean teeth and fresh breath are a must. Deodorant is likewise important. Hair and fingernails should be clean and neat. Makeup and jewelry should complement your appearance without drawing attention to you.

There is almost always a difference in clothing options for work and your off-the-job clothing. Dress appropriately for the occasion. It’s okay to wear torn jeans when you’re at home, or hanging out with friends. Clothing options for work should appropriately reflect the business environment. The tanning industry is a **little** more casual than most, and allows for a little latitude in the way a person dresses. However, you are the front line representative in a business. Your credibility with customers is based in part, on how you dress.

Clothing in the tanning industry should be both functional (you have to be able to get down on your

Clothing in the

knees to clean entry-level tanning equipment) and appropriate for taking customers on a tour of your facility. Your options shouldn't include clothing that is so revealing that it draws attention to you, and away from the business. Clothing that is appropriate also shouldn't look like it has been slept in the night before. Your options don't have to be limited strictly to business dress, or to what your conservative customers would wear, but your conservative customers shouldn't find your choices to be distasteful either. If there are any questions about the standard at your facility, see your manager or owner for specifics. If you are a new owner, now is a good time to consider what type of attire is acceptable at your business.

tanning industry should be both functional...and appropriate.

Performing with Attitude

Everyone likes to feel important. Conversely, no one enjoys being treated as though they are unimportant. Think for a moment how it feels when someone is rude to you, or cuts in front of you when you've been waiting in line. No one likes "care-less" service people; especially with a "can't do" attitude.

It's no different in the tanning industry. You follow company protocol. If your attitude shows that your interest is to any degree on anything other than the customer, you are going to lose customers. Customers need to feel important.

A lot is going on in your life right now. You've just changed jobs. Perhaps bills are due soon and you're wondering if enough money is going to be there to make ends meet. Maybe you've just had a fight with your significant other. School homework is proving overwhelming and now you've got added homework with this work-related training program. Your personal life is important, and there are a lot of reasons to keep your focus elsewhere.

Here's the difficult part: Your personal life isn't that important to your customers. They've got their own issues that they are concerned about. Part of your job is to ensure your personal life doesn't bleed on to your customers.

Why? In this vanity related industry, customers are coming to a special place to take care of an important person; to both look good and to feel good about themselves. They are coming for a few minutes of personal time, and they want to enjoy those few minutes without being forced to share or to delay that time with unwanted personal bad news. If anyone has a right to cry on someone else's shoulder, it's the customer; and you may have to be available, whether or not you care. Indulge them with the care and respect you would want. You might be the only few minutes of brightness in their day.

...you are being paid in part, for your ability to control your

So how do you go about making the customer feel good? Prepare yourself — that is, prepare to be aware. Before you ever greet the first customer, switch mental gears. A few minutes before you

focus. arrive at work, start telling yourself you need to set aside your important issues so that you can focus on treating your customers with first-class respect. Think of this — you are being paid in part, for your ability to control your focus. To help you focus, you may need to turn off your car radio. Just remember, your customers need to feel respected, valued and important. Especially first-time customers. Your attitude should reflect a genuine smile and greeting when they walk in the door. Advance preparation will help you adapt to a variety of personalities that you will face.

Performing with Awareness

We could bring up a lot of sub-topics under this heading, including security related topics, or awareness of the specific operations at your job site (in-store promotions or cross-selling programs, packages and products, etc.). What we've chosen is awareness of the customer. If you're not thinking about your customers' needs and wants, someone else (like your nearest competitor) will. If it weren't for the customer, you wouldn't have a job. The best way to focus on your customers' needs and wants is to listen to them. Let's sharpen this skill now.

Listening Skills

Active listening — It's a term that has been around for years. Active listening means concentrating on what you hear, then responding in a way that shows that you understand. Active listening is so powerful, that beyond understanding, it sends the message that you respect the person who is speaking. It also shows that the neither the message nor the speaker is being critically judged. To add icing on the cake, it shows the speaker is being accepted and even valued. How do you think your customers will respond to messages of respect, non-judgment and value that you send by active listening?

Active listening is a training course all by itself. The scope of this training program allows for a brief mention of the topic, so let's explore some highlights.

Listening To What You Hear

Active listening involves paying attention to several messages all at the same time. Some of what the person communicates is **verbal**. That is to say, part of the message is content related, or the actual words a person uses. Another part of the message is **vocal**. "Vocal" refers to the way a person says what they are saying. So their tone of voice (monotone, for example), their rate of speed, their pitch (squeaky high, moderate or low), their volume, their rhythm and use of other verbal techniques, such as a dramatic pause, are all vocal tools to add meaning to a person's communication. People also communicate **visually**. "Visual" communication includes the messages you get from a person's gesturing, the posture they assume while speaking, their facial expressions and the messages you get from eye contact.

Below is a short exercise. In past classes, we have had a number of people who like

to play it safe by choosing 33.3 percent for each of the answers. Beyond that, it's rather mixed.

Figure 7.1: **Short Exercise**

Based on what we've discussed so far, what percent of total communication is made up of what a person actually says (their **verbal cues**)? How much is **vocal**, and how much is **visual**? Remember, when you add them all up, the total should be 100%.

- What percent of communication is **verbal**? _____
- What percent of communication is **vocal**? _____
- What percent of communication is **visual**? _____

TOTAL: 100%

Before giving you the answers, know that researchers always put more weight on the vocal and visual side of communication. Apparently what we see in communication means more than what we hear. In fact, only seven percent of communication is put on the verbal side. Vocal communication is rated at thirty eight percent and visual is a whopping fifty five percent. Put another way, ninety three percent of communication is non-verbal!

Listening To What You See

Put yourself back at your workplace for a minute. If active listening is important to a customer, how do you think he or she feels, when you're folding towels while listening to them talk, or performing some administrative task? Regardless of how skilled you are at listening intently while multitasking, you're limiting yourself to somewhere between seven percent to a maximum of forty five percent of their message. The bad part is that the customer can see that your attention is divided. Your customer wants you to SEE what they are saying, beyond just hearing their voice.

Tips for Communicating Effectively

The best way to communicate with your customers is to:

- **Stop what you are doing.**
- **Build rapport.** This includes little, but important things like greeting the customer, making eye contact, being friendly, calm, and making sure you are sending the right verbal, vocal and visual cues.
- **Listen to the content of their message (the verbal cues).**
 - Listen for any themes, incase you need to distill the conversation to a few main points.
 - Don't interrupt or get defensive. They have a need to be heard first so that they know you value them and their future business.

- If it is a complaint, avoid focusing on minor details, or a customer's inconsistencies, unless absolutely needed for clarification. Doing so could inflame the situation.
- **Listen to what you see.** It will clarify what they are saying, or provide additional information.
 - Acknowledge them periodically by "rocking." Rocking involves sending verbal and visual cues to let the customer know that you are paying attention. Little statements like "okay," "yes," "mm hmm" help suggest that you are keeping up with the message. Visual responses such as a periodic nod of the head also help.
 - Rocking should be done at the rate that a person is talking. If you acknowledge them too rapidly, it will show that you are in a hurry, and they will feel less valued. If you rock too slowly, you send the message that you're not paying attention, or that you're really not interested in what they are saying.
 - Watch your own posture and movements while the customer is communicating. You could send visual cues that are unintended. For example, leaning toward a customer shows that you are listening and interested, but you might get too close and enter their personal space. Your arms might be crossed because it's winter and lots of cold air blows directly toward your reception desk. Yet during a complaint, arm crossing could be interpreted by the customer as being defensive or being uncomfortable with the person who is talking.
 - If it's an unhappy customer with a lot on their mind, be prepared to take notes.
- **Add the power of courtesy.**
 - Be prepared to adapt socially. Each customer has their own unique needs for acknowledgement. Your verbal, vocal and visible messages should be customized for each interaction. It shows respect when you do.
 - Avoid using technical jargon with your customers. It's better to refer to "bed number five" than to refer to the model number of the bed and/or the technical nature of the lamps (such as "our Technotan 2000 blue with VHR reflector lamps").
 - It may be normal to hear phrases that express courtesy today, but it's not as common as it used to be. In the business world, it's helpful to be uncommon by expressing words that demonstrate courtesy and civility.
 - It stands out when a young child says "please" or "thank you," "excuse me," and "I'm sorry." These words are still appreciated when adults use them.
 - The misuse of "Sir" and "Ma'am" can make you sound disrespectful, but when used appropriately, they are powerful.
 - There is a certain level of dignity and professionalism that goes with a "Yes" response over a "yeah" response. "Yeah" is okay to use when you're off the job and with friends.
 - Use a person's name, if you know it. Everyone likes hearing their name.

Phone Skills

The biggest limitation of the phone is that you can't **see** what a person is telling you. Remember 55 percent of communication is visual. You know that your phone customer is waving their hands, posturing and nodding their head while talking to you. It's possible that you do the same when responding to them. But neither person can see these motions, communication is necessarily limited.

...Smile when answering the phone.

Because standard phone communication is limited to what you hear, the communication percentages change dramatically:

- Percent of phone communication that is **verbal: 16%**
- Percent of phone communication that is **vocal: 84%**

While it's important to listen to the way a customer says what they are saying, it is also important to pay close attention to the way you respond vocally. This is why, for example, seminars on phone communications tell their attendees to smile when answering the phone. Facial expressions tend to transmit vocally on the phone. Here are just a few tips for enhancing your phone skills:

- **Answer the phone as soon as reasonably possible.** Only a few decades ago the standard was to answer within six rings. Then it dropped to three rings. We would like to suggest that if at all possible, answer the phone the moment it starts ringing. Maybe you have caller ID on your phone and you want to see who is calling first. If there's a security issue at the salon, or the salon has been receiving annoying prank calls lately, you might want to wait for the caller ID to activate. In the absence of any issues, why wait? Customers really appreciate a rapid response.
- **Start with a positive attitude.** You don't need to get overly enthusiastic on the phone, but you should look forward to speaking with your existing customers and your potential ones too.
- **Smile when answering,** as previously mentioned.
- **Be aware of distracting phone noises.**
 - If you have put the phone between your shoulder and ear, try not to let your shirt drag across the phone receiver too frequently. It will indicate you are multitasking, instead of listening with your complete attention.
 - It's good to keep your mouth close to the speaker while talking. If you have a customer wait while accessing information (without putting them on hold), be aware of breathing into the mouthpiece. Breathing noises on the speaker can be annoying.
- **Pay attention to your customer,** not your co-workers who are trying to make you laugh, or to the dog that just ran past the front of the building with a leash but no owner.
- **Try to resolve issues immediately.** The faster you resolve issues, the faster your customers gain confidence in your company and in your competence. Be honest. If you don't have an answer right away, don't bluff your way through.

Also don't tell the customer that they will just have to call back some other time. Take ownership of the call. Take notes too, if needed, so that you or the next person up the chain of command can answer any questions with accuracy and resolve issues to the customer's satisfaction.

- **Be careful about putting customers on "hold."** When you put a customer on hold, they might get the idea that you're putting someone or something else at a higher priority than them. If you do need to put a customer on hold, ask them if you can put them on hold and let them know for how long (no more than three minutes at most, with 30 seconds being preferred). Let them know what you will be doing while they are on hold. When you come back, thank them for holding.
- **Never put your customers on the speaker phone.** It's rude because they don't know who else might be listening in on the conversation, and it might prevent them from telling you their actual request or complaint. If you feel it is absolutely necessary, ask for permission first, explaining why you need to use the speaker phone.
- **A can-do attitude is important.** The last thing customers want to hear is that their request can't be fulfilled. If you have to tell a customer that you can't do something, be sure to replace your "can't do" with what you "can do." If you give them the feeling that you have become their advocate, to help them solve the problem, you've done your job well.

Email Skills

Some people prefer communicating by phone because it's faster than writing a long email. Still others prefer to communicate by email. The nice thing about email is that your customers can leave a message for you at 2:00 a.m. if they prefer. The time and nature of your response is crucial.

Acronyms commonly used in text messaging...are not appropriate for customers in a business response.

First impressions are formed by your email responses just like they are in person and on the phone. How long do you take to respond to your customers' email requests? What about the content of your response? Do you just copy and paste the same old answer to similar questions? It's obvious when you do, and annoying when your answer isn't situation-specific.

Acronyms commonly used in text messaging like BFF (Best Friends Forever), WYSIWYG (What You See is What You Get), G2G (Got to Go) and TTFN (Ta Ta for Now) are not appropriate for customers in a business response. Avoid the emoticons too. Proper spelling and grammar are good ways to respect your customers. Beginning sentences with lower case letters and responding with sentence fragments are sure ways to detract from your professional image.

Performing with Appeal

There's a kind of performance that gets the job done. Then there's the kind of performance that gets the job done with enthusiasm. To get the job done with enthusiasm, start by considering what your tanning customers want and why. What is it that they want? To get cosmetically darker than they are now. Why? Because tans look good on people, and your customers want to look good.

They don't just want to look good. They want to look good in a clean, pleasant, and secure environment. They would also like to be pampered a little. You may not be a day spa, but tanning itself is a form of pampering.

A new customer with these standard expectations for tanning and pampering, has just walked into your facility. What do you do now? For just a split second, remind yourself about the reasons the customer is there. The customer has worked hard, and they deserve a little self-indulgence. So let's indulge them for a minute. Your enthusiasm and interaction with the customer can be perceived as a form of pampering too. Use your imagination to appeal to the customer's imagination.

Imagine...at **your** tanning facility, the customer has five ways to tan. It's time to take your brand new customer on a tour to introduce these ways to tan. How would you go about doing that?

Pause, and step outside of your imagination for a moment. Let's acknowledge that your place of employment may already have a set procedure for working with customers from the moment they enter the door until the moment that they leave. That's fine. All we are doing here is taking a look at one aspect of the entire process (introduction to tanning equipment) and using "imagination" as a tool to provide an example of how somebody might perform their job with appeal (enthusiasm).

Okay, let's get back to using your imagination. You've progressed in your presentation to introducing your unique mix of equipment, hopefully with a little enthusiasm. Let's start with your top of the line unit.

You speak. "I call our level five beds 'vacation beds.' Look how big they are! If there weren't laws against it, you could almost tan a whole family in there! But we want you to have a completely roomy atmosphere that you get to have, all by yourself. These beds will tan you seven times faster than our entry level units. They're so powerful we use the building's air conditioning to keep both the unit and the tanner cool. Notice the adjustable vents for your comfort.

Level five offers a spa-like experience. It has five facials, contoured acrylic to help get rid of those pressure point areas and a misting option to cool you further, should you so desire. If that weren't enough, level five also has several different aromatherapy options. The music system built into these units is completely customizable and also plays your favorite MP3 music. We've pre-loaded a variety of music so you can choose what you want to listen to while being absolutely pampered. You can even bring your own music from home if you prefer, and play it here while you tan. If you want to experience complete, tanning indulgence, this is the bed for you.

Level four is our stand-up option. Some prefer to stand while they tan. These units

are great for those who like to get fantastic results in a hurry. It's also great for those wanting to get rid of pressure points. These units will tan you four times faster than our entry level units. If you decide to get the platinum tanning package with us today, you'll have the option of tanning in this unit twice at no additional cost. We just want you to see how impressive the results are.

Level three tanning units have three facial lamps. Facial skin often doesn't respond as quickly as the rest of a person's body, so we offer this option to help maximize tanning results. These units also have a music option, with a few less features than our level five beds, but with a sound quality similar to level five, and will transport you to your favorite stress-free vacation spot.

The next type of tanning, level two, has more tanning lamps than our level one unit. It provides you with even, natural-looking results, and all lamps operate at higher power than level one, to increase your tanning response.

Level one units are entry-level. They have optimized levels of both UVA (bronzing rays) and UVB (pigment-building rays). They are awesome for building that perfect tanning foundation. We generally recommend tanning in our upper level units to enhance both the tanning experience and the result. However, just once in awhile we recommend that customers rotate from their favorite upper level equipment to help break through those tanning plateaus.

*All equipment comes with professionally-trained, operator-controlled exposure times to ensure the best tanning results. We also sanitize **all** customer contact surfaces with medical grade sanitizers between every customer visit. We have the highest sanitation levels in the industry to ensure peace of mind."*

There are a lot of ways to introduce a customer to your equipment and your sanitation standards. This was just one possible way. But why stop at tanning equipment and sanitation?

That lotion at your shop would look good on them too. It smells great, probably has impressive, high-end skin care ingredients that are absolutely amazing, and probably comes in many varieties (combination bronzers, tingle or cooling, shimmering, etc.).

Those after-tan skin care products help maintain that tan. The difference between those things and the stuff you get at some soap store or other vanity-based shop is that your after-tan products have ingredients that help prepare their skin for that next tanning session while hydrating their skin with world class moisturizers. Then of course, maybe you have other options at your facility too, such as spray tanning, massaging units, narrow-band light therapy and more. We'll discuss some of these options later on.

Performing with Aptitude

Everyone develops different interpersonal skills during their life. Two difficult ones are self-discipline and a concern for others. Do you have the abilities? It's great to

perform your job with enthusiasm, but it seems like a chore to perform when the customer on the other side of the counter is disgruntled. You say you can handle disgruntled people? How good are you?

Do you have empathy? How do you feel like responding when a customer service representative from some company denies, blame shifts or even makes you wait an extra long time because they don't want to deal with you? You want to escalate the situation to the next level, don't you?

We'd like to suggest a change of perspective when dealing with unhappy customers. When a customer comes to you with a complaint, they most always are giving you the opportunity to fix the problem, rather than to go somewhere else. Customer complaints are actually opportunities to:

- Show you care about the customer.
- Boost your skills at problem resolution.
- Turn an unhappy customer into one that is both happy, and wants to stay with the company for life.

It all begins with that "can do" attitude. Customers take notice when you use a "can do" attitude to effectively turn a "can't do" scenario into a positive resolution. If the customer wants to do something that's not allowed (such as letting more than one person into the tanning room); become a problem solver. Perhaps you could let them sit in the lobby chair facing the hallway where their friend is tanning, or let them know you will contact the owner to get an acceptable answer.

How can you develop a "can do" attitude? If you ever hear yourself saying you can't do something, or that something is not possible, stop, and start thinking, "how can I make it happen? What are the possible alternatives?" Pessimism is a bad habit, but can be replaced with a little work.

A "can do" attitude may sometimes mean thinking of alternative ways to make the customer happy. If for example, you can't give refunds for unused package minutes or visits, don't tell the customer "I can't do that." Customers don't want to hear what you can't do; they want to hear what you can do. To do this you have to determine that you are going to be a problem resolution specialist (this is the heart of someone with a "can do" attitude). Would the customer accept having their remaining minutes or visits transferred to a friend or donated to a charity that the company sponsors? Could they convert their 10 remaining basic visits into two or three upgrade visits or toward another available service at your shop? What other non-standard approaches can you come up with on behalf of your company that would satisfy your dissatisfied customer?

If you are an owner or manager, make time during the slow periods of an employee's day to create problem scenarios for the employee to resolve. A few

Customer complaints are... opportunities to...turn an unhappy customer into one that is both happy, and wants to stay with the company for life.

suggestions might include:

- The customer who wants a refund in a non-refundable situation,
- The customer who's blouse is ruined because they caught it on an edge of the tanning device and the tanning device tore a small hole in it.
- The customer who was treated rudely by another employee.
- The customer who feels like they didn't get any tan from the equipment last time.
- The customer who claims the lotion they just bought isn't doing anything for them.
- The customer who broke out in a rash from the lotion they just bought, or broke out on the side of their body that made contact with the acrylic.
- The customer who says her doctor told her that her skin infection came from the tanning bed.
- The customer who wants to bring a friend, a spouse, their child or a pet into the tanning room with them, and the company's policy is not to allow anyone other than the tanner into the tanning room.

Basic Steps in Conflict Resolution

It may be helpful to consider actual situations you have experienced on the job so far, as you go through these steps. Think for example about the demanding customer who insists on tanning for the full time, but you know they can't handle the full time without burning. They are instantly hostile at hearing the message that they can't tan for the full time allowed on the tanning device. They are already hostile — remember your “can do” attitude, and remember that all customer complaints are opportunities.

Raise your tolerance for conflict.

Why is it so important to retain complaining customers? Admittedly on rare occasions, it is better to allow some customers to move on, especially if they become more expensive to maintain than their lifetime value brings to the store.

But unhappy customers are better at spreading the word about their unhappy experience at your business, than happy ones are. Consider too that it is far more expensive to acquire new customers than it is to retain existing customers. Depending on the time of year it's even more difficult to acquire new customers outside of the busy season. Any decision to let a customer leave needs to be made with your manager or owner's input and approval.

Unhappy customers can be salvaged and turned into happy and even more loyal customers. Here are some steps in resolving any conflict with your unhappy customer.

- Raise your tolerance for conflict. You can do this by removing any standard personal, emotional responses to hostile people and common situations. You don't want to match anger with anger. This is the time to allow your customer to vent.

- Be aware of your own hot buttons and responses. This is related to the first point but instead of situations, it applies specifically to “trigger words” and looks from people that you find to be personally insulting. The instant these words and looks are employed you want to emotionally respond in an unfavourable or impolite way. In a business world it’s important to be able to develop a “non-stick” surface when you are being grilled by the customer. Don’t let personal insults stick to you. Just acknowledge that you can tell they are upset about the situation and let them know you will do everything you can to help resolve it. Most often the customer is actually concerned about their situation rather than a personal dissatisfaction with you. If you are part of their problem, definitely give them time to vent and acknowledge that you understand and apologize if appropriate. This requires humility. It demonstrates respect for the customer, something they need from you.
- Remember to listen effectively.
 - Listen to what you see (it may help determine the intent of their message).
 - Listen to what you hear (remembering the content). You may need to take notes because there may be several issues or points that the customer is concerned about. Paraphrase the main point(s) or issue(s) to show you understood. If a customer is really hostile, it’s better to restate the customer’s actual words than to paraphrase.
 - Add the power of courtesy. Be aware too of your verbal and non-verbal cues. You certainly don’t want to mouth words of courtesy while maintaining a posture or look that shows complete disinterest.
- Set deadlines for the customer. Let them know you will get back to them with a response by a certain time. Then keep your commitment. If you need to escalate the situation to a supervisor, and the supervisor doesn’t provide a timely answer, call back to extend your deadline as necessary.
- Develop several possible solutions to the problem. If possible, come up with more than one answer to the problem. This allows the customer to feel a little greater control over the situation, and also is more likely to provide a positive outcome. For example, instead of just giving a refund only, offer a credit on a tanning package, or a non-standard upgrade to one of your top level beds. Perhaps a spray-tan would do this time. Maybe a one time extension past the normal deadline for use of a tanning package would do the trick.
- Take preventative steps. You certainly don’t want to create or keep an environment that will allow the situation to occur with another customer, or worse, with the same customer. Do what is necessary to keep it from happening again. This may mean making a policy adjustment or adding something to your operating procedures.



Chapter Seven Review

1. There’s nothing wrong with wearing clothing or jewelry that is attention–

- grabbing at work. **True or False?**
2. It's good to start thinking about what you will be doing at work and how you will deal with your customers before you ever get to work. **True or False?**
 3. 93% of communication with your customers that walk into the salon is non-verbal. **True or False?**
 4. It is always preferable to wait until the caller ID shows who's calling prior to answering the phone. **True or False?**
 5. Customers only want to hear what you can do in their situation; not what you can't do. **True or False?**

[View Answers...](#)

CHAPTER 8: The Essence of Discretionary Tanning

What Is Discretionary Tanning?

In a nutshell, it means using a sound protocol to ensure customers tan in a clean environment and for correct exposure times. There's a lot more to discretionary tanning than customers think.

To your customers, tanning outdoors is simple. Grab some tanning lotion or sunscreen, then lie out in the sun for an arbitrary amount of time, turning over half way through the process.

It's common for indoor tanning enthusiasts to think that indoor tanning is very much the same as outdoor tanning — grab some lotion and tan in the unit of choice for the full time, if they feel they can handle it. All tanning units are essentially the same after all, so the tanning “technique” is the same. To those with both training and experience in the tanning industry, we know there is far more to tanning than the risky “tan-by-feeling” approach.

Let's explore the principles of discretionary tanning to become effective gatekeepers against overexposure and injury. Start by developing a “skin profile” that is unique to the customer. This should be done on the initial visit.

There are many questions that could be asked of the customer. Most salons will ask the same standard questions, then add in a few miscellaneous and less typical questions. While the standard questions should never change, additional questions should reflect contemporary issues that might end up affecting customers when they tan. In the U.S. and Canada for example, questions about new tattoos and recent corrective eye procedures are very appropriate, whereas they were almost irrelevant back in the 1980's.

Questions for Customer Screening

Following is a list of questions for any customer screening questionnaire along with an explanation of what kind of information you're looking for when asking each question, as well as why the question should even be asked.

Do you experience any initial reactions to tanning (freckling, rashes, sun poisoning, etc.)?

If a prospective customer answers "yes" to a question like this, then you should reduce their initial tanning sessions to minimize the potential for these reactions.

Have you tanned routinely in the last 30 days?

With the exception of Illinois salons, those who have developed a base tan prior to coming to your facility can handle greater initial session times than might be recommended on the first week of the exposure schedules that are listed on the equipment. (Customers in Illinois salons must start out at initial session times listed on the exposure schedule, regardless of their recent tanning history.) Remember that by asking the question you are seeking all recent tanning history, whether indoors or out.

Do you burn easily? Do you tan easily?

These two questions belong together. If you remember in Chapter 2 we discussed the principles of skin typing. These two questions were crucial, because it is difficult to rely alone on a person's individual characteristics which might provide less accurate information.

Have you airbrush/spray tanned within the last week?

This is not a common question on customer questionnaires, but it should be. The quality of the appearance achieved from spray tans has increased phenomenally from what it used to be. It might be difficult to determine whether a person's tanned appearance is due to UV tanning or spray tanning. It could also be from both. If a person answers "yes" to this question, you know their initial time should be reduced from what you might otherwise have started them at. It's also helpful to let customers know that spray tans don't offer tanning protection. It's been suggested that spray tans might offer some protection, but their intended purpose is only to make a person look good cosmetically.

Have you been tattooed in the last two months?

The chemicals that have been implanted into a person's skin from tattoos make their skin hypersensitive to UV exposure. Unless the tattooed area can be completely protected during the healing phase, tanning shouldn't be allowed. Their tattoo will fade faster while healing and more importantly, the customer will burn in that area.

When we say protect the area, we're not recommending that a person apply sunscreen or sunblock to the "wounded" area. A better form of protection would be a towel, for example, wrapped several times around a forearm with a tattoo. The problem is the huge white areas that would develop around the tattoo, so

customers have to determine how important tanning really is.

How long should freshly tattooed customers wait? The average healing time runs anywhere from two to five weeks. Some with sensitive skin need to wait up to two months. When they do begin tanning, these customers need some protection for their tattoo. UV exposure is notorious for fading tattoos.

Many salons sell some form of tattoo balm. Depending on the size of the tattoo, a person may also be interested in using tanning stickers over the tattoo. The tattoo stays protected and the sticker may form interesting patterns or borders around the tattoo to highlight the area.

Are you taking any prescribed or over-the-counter medications?

Why would a question like this be important? It's important because the only four people that died from indoor tanning, died when they tanned after taking a photosensitizing medication.

When we say the word "photosensitizing" we mean that the chemical, the medication or food will make a person's skin sensitive to light; ultraviolet light specifically. In other words "photosensitizing" agents can make a person burn faster. **Appendix A** lists a massive amount of examples of these agents. The degree of sensitivity varies based on the medication. It also varies based on the individual who is taking the medication. What affects you may not affect any one else in your family.

Appendix A is not a complete list. While you'll find the most comprehensive listing of agents here that is available anywhere, no one's list will ever be 100% complete. Additionally, we may list the primary medication, but perhaps not all of the generic names for that medication, nor all of the brand names that may include that medication in their mix.

The natural question is, "what do you do about a person who brings in a medication that is not on the list?" It's a good question, and we'll answer it shortly. Before we do, refer to Appendix A and look for a medication called *psoralen*. Psoralen is that agent that those four people died from.

Psoralen – A Tanner's Natural Enemy

Psoralen, and its family of medications (you will notice there are different prefixes and numbers that can be added to the name *psoralen*) are the most potent photosensitizing agents available. Psoralen is used to treat people with psoriasis or with vitiligo. Vitiligo is a type of white spot that we discussed earlier in Chapter 6 — Basic Risks to Skin. If someone has psoriasis or vitiligo, they are not limited to taking psoralen for treatment. There are other options as well. Psoralen is just one of them. Because psoralen is so potent in terms of its ability to sensitize skin to ultraviolet light, some have said that it will multiply a tanning visit by up into the triple digits. That sounds a little bit fictional, but it may not be as far off as one might think. We'll illustrate this in a moment.

The first person we'll bring up is a woman named Patsy Campbell from Portage, Indiana. She was 45 back in 1989. According to the published report she "died at the University of Chicago Medical Center from complications caused by burns she suffered at a beauty salon's tanning booth," said Christopher Morris, spokesman for the Cook County medical examiner. "Burns covered 70 percent of her body," he said. "Ms. Campbell had undergone a 25 minute tanning session on May 13," he said.

Dr. Alan Dimick, a burn expert from the University of Alabama, said he believed this was the first case of death caused by burns from a tanning booth. Taking photosensitizing drugs "would set her up for the burn," Dimick said.

You will notice the article was crafted to make it sound like the tanning industry was responsible for this incident when the doctor and pharmacist should have given her strict warnings. Supposedly the medical practitioner, a personal friend, prescribed psoralen to Patsy because it would help her get a quick tan for an upcoming vacation. There's no telling what that doctor was thinking when recklessly prescribed that medication and told her to go tanning. If you only multiplied psoralen's strength by four or five times that tanning session would have turned into something like a two hour visit.

When a person tans, their immune system gets "exercised" if you will. Tanning suppresses the immune system temporarily then the immune system comes back a little stronger. In an overly simplistic illustration, this is similar to lifting weights for exercise. Muscles become weaker after lifting those weights, then recover and come back a little stronger. Just like a person has a genetic limitation for how strong their muscles can become, they also have a limitation on how strong their immune system can become. The point is that for many, the immune system improves a little.

In Patsy's case, her immune system didn't suppress a little — it suppressed a lot. If you ever experienced a bad sunburn, you might have felt like you were on the verge of getting sick. That is because your immune system suppressed that much. That would never happen with a standard non-burning tanning session. With the use of psoralen, Patsy's 25 minute session was extreme. In extreme cases, the immune system suppresses so much that it gets confused, if you will, and begins thinking of internal organs as enemies to the body, then attacks them. Patsy developed sepsis, a type of blood infection, and it got out of control. Her organs began to fail, and she died as a result.

Another similar incident occurred to Henry Homer, a 90 year old man. Yes, he was 90! Your first thought might be something along the lines of "why would a 90 year want to get into a tanning bed?" He wasn't actually trying to get a tan. Henry had psoriasis. In March of 1990 he went to the dermatology department of Miami's Mount Sinai Medical Center. He was placed in a stand up tanning device. Just so you know, tanning devices in doctors' offices are called "phototherapy units." Homer was exposed to ultraviolet light for 20 minutes rather than 20 seconds. Homer received 60 times the exposure he was supposed to receive. You might be

wondering why the exposure was supposed to be so short. It's because that is all that it takes to begin generating a chemical reaction in skin that will fight either psoriasis or vitiligo.

If you were to multiply psoralen's photosensitivity strength by just four or five times (multiplied by the 60 times more than he needed), Homer really did receive an exposure that was in the triple digits beyond what he was supposed to receive. Like Patsy Campbell, Mr. Homer's autopsy report indicated that his death was the result of sepsis, which was initiated from first and second degree burns over 80% of his body. Homer's death was officially ruled an accident.

Two other psoralen-based tanning deaths occurred, both in Germany. The first actually happened in 1985 and the second in 1999. They mirror the two incidents in the United States. One had tanned in a local tanning salon and the other was receiving medical treatment.

Medication Procedure

Clearly if someone comes to tan at your facility and they are taking psoralen, they should never tan. Psoralen and psoralen-based medications are "no-tanning" medications. No tanning is allowed if your customer begins taking psoralen, or if a new, would-be customer is already taking that medication. What do you do if they are taking anything else?

There are some points to keep in mind as you consider tanning individuals who are not taking psoralen and psoralen-based medications. The first is that, as mentioned previously, the list of photosensitizing agents is not complete. The second is that every medication, whether or not it is listed, varies in terms of its ability to sensitize a person's skin to ultraviolet light. Yes, we are implying that you should consider every medication, even if it is not on the list, as having some potential to sensitize a person's skin to UV light, regardless of whether it is prescribed, or available over-the-counter. This is the most sensible approach to medications and tanning, because no one will ever be able to compile and maintain a fully comprehensive listing of photosensitizing agents that is current at all times.

Third, every individual's photosensitivity response to any medication is going to vary, so that what affects you for example, may not affect anyone else in your family. Each person's responsiveness to any medication is highly individual.

Fourth, it is helpful to categorize medications. Let's mention at the outset that some states require you to list the specific name of the specific medication(s) that a tanner is taking. Tanners don't always bring in their medications with them. Even if they did, it seems as though it would be a challenge for some pharmacists to pronounce the name of some of these medications. Anyway, some states still require the specific name of the specific medication or medications that the customer is taking.

In the absence of such requirement, categorizing medications can be helpful. The idea is that if the customer didn't bring in their medication, they might be able to tell you what it is for. Let's say the medication they are taking is for diabetes. If you were

to refer to the list of medications by category that have the ability to sensitize a person's skin to UV light, you will notice that diabetes medications are on there. Because it has been listed by category, you automatically know that regardless of the medication's name, it has been identified as a category of medications that has potential to sensitize a person's skin to ultraviolet light.

In categorizing even further, you could say that **any** class of medication that starts with **anti** has the potential to sensitize a person's skin to ultraviolet light. How much? It's based on the medication and on the person's individual responsiveness to it. Oral contraceptives (birth control) are an example of another medication category.

What else are you supposed to do if someone is taking a medication, whether or not it is on the list? Keep in mind that if it is any medication other than psoralen or in the psoralen family, then yes, they can tan.

The natural question that arises here is "aren't there other medications that are really powerful photosensitizers?" There are, but nothing comes anywhere near the strength of psoralen. Psoralen is the only medication that has ever been connected in the death of people in conjunction with UV exposure.

So, a person can tan if they are taking anything else, but there is a precaution. If they are taking anything else, you need to do a **photosensitivity test**. What is a photosensitivity test? Put them in a tanning unit for absolute minimal time, for example, two or three minutes in a 20 minute unit, and see how their skin responds. If over the next day the customer turns a little pink or even red, you know that you exercised tremendous caution, by only putting them in the unit for just two or three minutes. What happens if nothing noticeable happens? Keep them at that exposure level another time or two then move them up one minute and see how they do. Continue this careful pattern until they have reached their standard exposure, provided of course, that their skin is able to tolerate standard exposure.

So, a person can tan if they are taking anything else, but...you need to do a photosensitivity test.

One other thought for consideration — it is helpful to post a sign in each of your tanning rooms that says something like "if you start taking medications or change medications, be sure to notify your tanning technician immediately." This way you can keep up on changes that might impact your customers.

Record Keeping for Medications

If you are in a state or province that requires you to list specific names of specific medications, then do as you are required. If you are not limited, there is a better way. The better way gets information you are looking for while respecting the customer's privacy.

Your first question about medications will be something along the lines of "Are you

taking any prescribed or over the counter medications?” This is still a good question. The follow-up question should no longer ask for the name(s) of the medication(s). Where legally allowed, the second question should be “If so, are any of these medications psoralen or within the psoralen family? Here’s why.

Consider for a moment that many customers don’t want to tell you what they are taking because medication usage is a rather personal. If they tell you they are taking an anti-psychotic medication, they have just revealed something rather personal about themselves they would rather not tell you. Yet you need to know whether or not they are taking medications because that information could impact what happens to them if they tan under otherwise normal conditions. If you only ask whether the medication(s) being used are within the psoralen family (the one and only drug that prohibits them from tanning) their privacy is almost always preserved. You don’t need to know the specific name of the non-psoralen medication, because your response to all non-psoralen medications is universal — do a photosensitivity test. See how this much simpler technique is also a lot more practical?

Phototoxicity, Photoallergy and Photophobia

Photosensitivity generally means “a sensitivity to ultraviolet light.” It is usually caused by photosensitizing agents and is an umbrella term to cover several types of responses to UV light. Up to this point, we have only been considering a person’s burning potential. Other responses include phototoxicity, photoallergy and photophobia. Of these three, phototoxicity and photoallergy are skin related. Photophobia is eye related.

Phototoxicity is a far more common response than photoallergy. **Phototoxicity** is an exaggerated reaction to sunlight caused by ingested medications or chemicals that have come in contact with skin, such as essential oils or lime juice. The most common response is a severe sunburn, but skin can also inflame and/or develop blisters and/or rashes.

If someone takes a medication or some other substance for that matter, then exposes themselves to ultraviolet light, they might experience a **photoallergic** response. The body’s immune system perceives the medication or substance as an allergen only when it has been activated by ultraviolet light, then it responds. Photoallergy shows up most often as a rash of some sort, and surrounding skin may appear rather irritated and inflamed. A doctor may classify the response as “allergic contact dermatitis.”

Photophobia is really just a strong desire to avoid sunlight or brightly lit places. Everyone experiences photophobia at some point. If for example you wake up in the middle of the night, you probably don’t want to turn on those bright kitchen lights if you don’t have to, because your eyes would be uncomfortable with having to make a dramatic adjustment to the light intensity they are being exposed to. Sometimes photophobia is caused from other things. An eye doctor may perform an eye test for glaucoma, and the drops that he puts into a person’s eyes may cause pupils to dilate and allow extra light to enter the eye. Because the dilation lasts for awhile

beyond the test, a person would have to wear sunglasses when they step outside. The ambient daytime light will be perceived as being much brighter until the effect of the drops has subsided.

We have been talking about medications and procedures for so long, it is helpful to remember that we are in the middle of considering screening questions for customers that help provide some discretion when making a decision as to how long a person should be tanning on any particular occasion. Here are more issues to consider.

Are you pregnant presently?

We discussed the issue of pregnancy and tanning earlier in Chapter 3, but this is an essential question for any good customer questionnaire. Pregnant customers should be informed about UV light's penetration depth, then get their doctor's written permission to tan.

To prevent drying and any potential discomfort, contact wearers should rewet eyes prior to and immediately after the tanning session.

Do you wear contact lenses?

It's actually okay for a person to wear contacts while tanning. Concerns in the past have been over contacts melting or sticking on the eyes. The only real concern is customer comfort. Tanning naturally causes a loss of moisture, and eyes, even if well protected by government approved protective eyewear, have a tendency to dry out. To prevent drying and any potential discomfort, contact wearers should rewet eyes prior to and immediately after the tanning session.

Are you presently recovering from any kind of corrective eye procedure or eye surgery?

Various forms of corrective eye procedures are available on the market today. RK was the original procedure that helped improve a person's visual acuity. That was followed by PRK, then LASIK and improvements on the LASIK procedure and finally waveform. Waveform takes vision from 20/20 to 20/10. The nice thing is that recovery times have improved dramatically with the improvement of the various procedures. Sometimes, a person is put on steroids to regulate the speed of healing of the eye after one of these procedures has been performed. Eyes that heal too fast or too slow during the recovery phase can result in a worsening of the eyes (e.g. hazy vision or regression to the eye's original state), so it makes sense for steroids to be used if necessary. The problem with tanning is that it interferes with the normal progress of recovery, causing eyes to heal too slow or even too fast. It's interesting to consider that in some circumstances, tanning might be able to improve the general health of the eyes, even if they are protected. That's not to say that a person's visual acuity will be enhanced; but that the general eye health might be improved.

Someone who is healing from some other types of eye surgery should never tan until they have healed because of complications with the use of these protective

tools. For example, elastic strings may create an excellent seal around the eyes, but they will also put excessive pressure on the healing eye. Eyewear with no strings still need to ensure that no UV light leaks in from the edges of the eyewear, or that might aggravate the surgery.

Have you had any recent cosmetic procedures which might be affected by UV exposure?

Because of the massive increase in cosmetic procedures in recent years, use caution. Some of these procedures cause a person to burn more easily when exposed to UV light. Procedures involving a thinning of the epidermis such as chemical peels, dermabrasion and the like, all reduce one of skin's natural barriers against excessive exposure to UV light, with the end result of increasing sunburn potential. Other procedures such as IPL (Intense Pulse Light) and Fraxel® temporarily injure skin and/or cause skin to tan in the affected areas but not the surrounding skin. Some procedures cause post-inflammatory pigmentation, which we discussed in Chapter 6. These treatments could also have the reverse affect, preventing tanning in the affected areas. Because of this, tanning should be put on hold until skin has recovered.

Have you ever been diagnosed with skin cancer?

We've covered a lot of information about skin cancer already. Just a reminder — If someone acknowledges they have been diagnosed with skin cancer (past or present) don't tan them, even if it has been removed.

Are you under a doctor's care presently?

We covered a plethora of conditions could be caused by, or aggravated by exposure to ultraviolet light. If a person acknowledges they have some kind of medical condition, use appropriate precautions. There are other questions that could be asked of customers, most of which would include market-based inquiries.

Reducing Salon Risk

We've spent time examining questions that enhance discretion on setting tanning times. A few more issues will provided even more discretion.

It is only appropriate that every customer read and sign appropriate statements regarding their knowledge of risk factors associated with tanning. Some U.S. states require at a minimum that the federal version of the radiation warning statement or an enhanced equivalent be signed by all customers prior to tanning. Some even require periodic renewals of signatures after re-reading the same statement. These statements help reduce potential liability.

Liability release statements never cover gross negligence, but they are still a smart component of any customer screening. It's always a good idea to get an attorney involved in developing your liability release statement.

If you are a new owner developing your own customer form, add a couple more items. Add a provision for minor consent, even if it is not required. Laws on minors

tanning are being intensified in many states in the U.S. Generally, if a customer under 18 wants to tan, they need approval from a parent, and this needs to be done in the presence of a tanning equipment operator at the facility. If a person is under 14, they are required to have a parent present at the facility (but not inside the tanning room) during the session.

Beyond minor consent, you may also want to add a legal provision for tanning illiterate or visually impaired persons. Some states require this. It is unlikely for those with literacy challenges to admit to their deficiency, nevertheless, you never know when you might be confronted with the occasion. In such a circumstance, you would be required to read a radiation warning statement, or some equivalent text out loud in the presence of a witness. If both you and the witness feel that the illiterate person understood the verbal warning, both of you would sign a statement saying so.

The same would go for someone who is visually impaired. You might be wondering why a visually impaired person would be interested in tanning. Yet some are interested in their cosmetic appearance. Read your warning about tanning to the visually impaired person, in the presence of a witness. You and the witness would then sign a statement acknowledging to the best of your knowledge, this person understood the warning and accepted the risks.

Principles of Outdoor Tanning

We have been considering principles of discretionary tanning. While we are primarily concerned about indoor tanning, it's wise to consider outdoor tanning principles too. It would be nice if your customers always tanned indoors exclusively. But reality lets you know when it starts getting warm outside, your customers are going to go outdoors to show off that awesome tan they developed at your shop. Help your customers make that transition. It shows you care, and may boost customer retention next season.

Indoors Versus Outdoors – What's the Difference?

How can you help your customers make that transition? One of the common questions that gets asked in our classes is "How does the sun compare to tanning equipment?" The simplest answer we can provide is to say that they both emit ultraviolet light. But that is where the comparison ends.

The nice thing about tanning indoors is that it is a relatively stable source of UV light. So you always know what you're going to get. The sun is a relatively unstable source of ultraviolet light, making it more challenging to predict what you are going to get. Nobody brings a UV meter to the beach to determine the UV intensity...Well, maybe a few salon owners do, but that's about it. The only thing left for a person to rely on is the UV index in the area of their planned exposure.

Factors that Influence the Sun's UV Output

Even the UV index is an estimate that is only good for a certain period of time, and

the estimate is based in part on predicted weather which is more predictable in some areas; less predictable in others. Cloud cover filters some UV light, though it's much better at filtering infrared (heat) than UV light. So the **weather is one factor** that alters UV intensity outdoors. **Air quality** is a factor in altering UV intensity too. Smog, dirt particles from a windy day, and other debris (air junk) can both absorb and reflect some UV light.

Other factors influence outdoor UV intensity too. **Location** is a big one. The closer you live to the equator, the more intense those rays are going to be. **Altitude** is another factor. The higher up you are from sea level, the more intense those rays get. So for example, if you live in Denver, Colorado, those rays are going to be more intense than those who live at sea level.

Speaking of sea level, let's not leave out the ability of those rays to reflect off of sand and water. **Reflection** means you get not only direct sun exposure, when you move closer to sand and water, you can tack on reflected UV exposure too. This too can alter the accuracy of the UV index for the selected location. Are you near bright colors such as cement or a white building? Even they reflect some of those rays. Don't think reflection has that much of an impact? One of the more popular items to be invented for the tanners in the 1950's was metal reflectors. They were hand held devices that you could shine on your face for a faster and more even tan.

The biggest factor disrupting the stability of the sun's UV rays is the **time of day**. Those rays are strongest around mid-day, and falter at other times.

Tips on Outdoor Tanning

All in all, the sun is a relatively unstable, unpredictable source of UV. But your customers are going outside to enjoy it anyway, so what should they do?

Prepare Skin for Outdoor Exposure

Long before that outdoor excursion, your customers should be spending time conditioning their skin to that outdoor environment by tanning indoors. Ideally they want to build up to their maximum ability to tan for their skin type, and do so responsibly.

Use Sunscreen

Even with a great base tan that isn't going to wash off like sunscreen can, it's still a good idea to enhance that base tan with sunscreen. Sunscreen was designed for just such an occasion where people put themselves in an uncontrolled environment for lengthy periods of time. It doesn't completely block those rays; it only minimizes them.

When choosing sunscreen, look for those products that have a higher **SPF** (Sun Protection Factor) number on them. The number isn't precisely accurate; it's only a guide for performance of the product.

Here's how that number is supposed to work: Let's say you can spend one hour out in the sun before your skin just barely begins to turn red. The SPF number is supposed to represent a multiplication factor. So if the SPF number on the bottle is 30, you're supposed to be able to spend 30 hours out in the sun, with the sun never setting, before your skin would barely begin to turn red. Knowing that this is unreasonable, you should still get the highest number available for the highest level of protection, if you plan to be outdoors for awhile.

Also look for those products that are considered as "waterproof." For a sunscreen product to be considered as "waterproof" in the United States it has to be able to remain effective for 80 minutes. That means it has to be reapplied frequently throughout the day. Remember too that it has to be on skin for about 20–30 minutes before it becomes effective, so plan accordingly.

Wear Protective Eyewear

Just like tanning indoors, it's completely appropriate to wear protective eyewear outdoors. Those rays may be a little more intense with indoor tanning equipment, but they're still strong enough outdoors to cause problems for eyes. Remember too that a lot of customers never feel any immediate discomfort from UV overexposure; yet subtle, permanent, long-term damage is still being done.



Chapter Eight Review

1. There is far more to tanning than the risky "tan-by-feeling" approach. **True or False?**
2. Tattoos usually heal in one to two weeks. **True or False?**
3. Psoralen is used to treat people with psoriasis or with vitiligo. **True or False?**
4. A photosensitivity test involves putting a tanner in a tanning unit for minimal starting times to see how their skin will respond to UV light, then gradually increasing the tanning time if there are no adverse affects. **True or False?**
5. The real concern with wearing contacts is that they might melt to a person's eyes. **True or False?**

[View Answers...](#)

CHAPTER 9: The Essence of Customer Touring

Up to this point in training we have been covering essential principles of working in the tanning industry. In this chapter we want to put those principles to work while you interact with your customers.

Why Give a Tour?

Isn't it easier to just take their money and send them to whatever bed they want to tan in? If you are a store owner, you really have to make a decision. If you just want to make equipment available to the public without providing any services, you are probably most interested in avoiding labour expenses. If your store is in an area where there are no regulations, this may be an option. It's very common to see fitness centers, apartment complexes and other businesses that have self-service or limited service tanning available. It is also very common in Europe and Asia to see tanning facilities that are completely self-service. The owner's greatest advantage is the complete elimination of staffing expenses, which is normally the highest operating expense of any business. Of course, disadvantages abound, including a weakened ability to project a professional image, a lack of customer care, customer service and someone to actively sell packages, upgrades, products and other miscellaneous tanning accessories, and most importantly, the ability to minimize occurrences of overexposure and other tanning related injuries. These latter points increase liability.

This training program strongly encourages salon staffing even in areas with no tanning regulations, because of the dramatically increased ability of onsite staff to promote responsible tanning and injury prevention.

Even if tanning is an add-on feature at your business and you only have a single tanning device, a customer tour should be considered essential. Tours assist customers in a number of ways. Sometimes just seeing the available equipment at your shop will help boost desire for tanning. Tours help build rapport with the customer, provide a convenient way to coach (educate) customers on the principles of tanning responsibly, and allow you to market your services, products and accessories more effectively.

How to Prepare

This chapter addresses items that should be covered. The order and arrangement are simply a model, and we are not suggesting that you change the order of any existing presentation you may already have in place at your shop.

Chapter 7 addressed the importance of personal performance. Because first impressions create lasting impressions, make sure that your performance at the salon creates a fantastic first impression.

***Have you ever
felt like a
tanning touring***

It's certainly not difficult to identify a poor salon introduction. You've probably visited a salon where an employee had their food and associated crumbs spread across the counter. Perhaps they

orphan?

assisted you between bites of food. How about the employee who slides a clipboard in your direction?

With face hidden behind a computer monitor and without so much as a greeting, he or she instructs you to provide your life's information on a sheet of paper. What about the employee that allows you to take your own unguided tour of the salon? Have you ever felt like a tanning touring orphan?

Introduce Yourself and the Salon

It is easy to identify bad customer service. It's not always easy to identify how to conduct a good tour. Start by getting inside the customer's head and think the way they do. When customers walk through your door, they take a mental snapshot of you and your surroundings. Without even thinking, they form a first impression. That's not wrong or bad — it's just the way things work.

You do the same thing when you walk into a restaurant you've never been to before. Take it one step further. What happens to your first impression if you have to wait too long before being greeted or acknowledged? Don't you begin to get a little impatient? Does it really matter to you if that person behind the counter is having a bad day? Right now it's time for them to provide stellar customer service. The store's sales depend on it.

Greet the Customer (and Build Rapport)

Start by greeting the customer. Customers like to be acknowledged when they walk into a place of business. It shows you care, and makes them feel welcome. It's okay to be a little enthusiastic too. This doesn't mean you have to gush with emotion, nor does it mean that you have to act like a cheerleader. A pleasant, warm greeting with a smile is appropriate.

Remember your non-verbal cues. You should be glad they are there. Every customer that comes in is paying a part of your salary. Are you on the phone with a friend? Clear the line and take care of your customer. Are you on the line with another customer? Silently acknowledge your incoming customer and signal that you'll be with them in a moment. If you are in the middle of giving someone a tour or any other activity, at least acknowledge the customer, and let them know you will be right with them. There is a heightened awareness of non-verbal cues when customers walk in. They want to be aware of what's going on. It may be a clue as to how quickly they get served and what level of treatment they can expect while they're there.

On a side note, customers also like a farewell of some kind too. It's the proper way to close out the visit. Imagine someone receiving a solid greeting, and going through a lot of initial care on their initial visit (paperwork, answering questions, being given a tour of the facility, etc.). When the tanning visit is over, they walk up front and no one says anything because the employee is dealing with some other customer, or perhaps is away cleaning beds or performing other housekeeping chores. It can leave the customer feeling a little empty. Granted, housekeeping chores are a must,

but as much as reasonably possible, be available for all customers.

It's also helpful to spend a few moments building rapport. Ask questions. Have they been tanning recently, and if they have, where have they been tanning? Some of these questions are reflected in the questionnaire they had to fill out, but that's okay. You're showing interest in **their** number one interest — themselves, so go ahead and ask. You want to deliver the best results with the best customer service available anywhere.

Find out what their tanning goals are. Are they getting ready for a special event? In asking questions, you get to know them and can more appropriately decide which equipment and products will work best for them. If you can connect with them by showing interest in their interests, you've done well, and will be able to persuade them more effectively in terms of guiding them to the right equipment and tanning products to meet their need.

If you are working with someone on your shift, be sure to introduce the customer to the other operator. This will give the customer another connection with the store and help them feel more comfortable.

Be sure to let your new customers know that you will be taking them on a guided tour of your facility. Since this is their first visit, you will also want to let them know that this first visit will take a little longer so that they can receive a proper orientation. After this visit, they will be in and out in no time.

Introduce Vanity Areas

Many salons have learned the practicality of having a vanity area outside of the tanning rooms. Leaving mirrors in tanning rooms causes customers to stay longer and slows down the traffic flow. If you do have a common vanity area, make sure customers know where it is for unquestionably easy access.

Locate the Restrooms

Why is this so important? Because there are rare, unruly customers that will use something, a trash can in the tanning room perhaps, as a restroom.

We're not trying to be indiscreet or unpleasant. This "accident" happens frequently enough that some U.S. states have created laws to deal with it. We would like to suggest that this unruly customer is an eventuality. The customer might be the epitome of social grace and class in your presence, but behind closed doors, he or she behaves like an undomesticated animal. They might use a trash can, a potted plant, or even the tanning bed itself. Nothing is sacred.

It's common to want to understand why someone would behave in this manner. It's also common for many in our classes to try to give the customer the benefit of the doubt. However, if a person has an ounce of self-respect and dignity, they are going to use the restroom first, then go to the front counter, explained they got sick, and ask if there is a way they can get back the remaining time they missed. To do

anything less is absolutely shameful.

The true reason behind this insult is disrespect, and should never be tolerated. There is no justification for anyone ever doing this.

Fortunately you most always know who the offender is — you have to clean the room between every customer visit. Rare exceptions would be if the customer left their waste behind the bed, for example.

Now is an excellent time to develop a protocol for dealing with this, because it is going to happen at some point. Start by preparing the tanning room. Double-line your trash cans that are in the tanning room. Tie the first one down to the trash can, then put in the second liner. This provides an extra layer of sanitation against the offender. Next, any potted plants should either be attached to the ceiling out of reach, or taken out of the room. If your salon leaves a sanitizer bottle in the room, consider taking it out, or at the very least, keep it full of sanitizer at all times. All of these recommendations are based on common ways that offenders tend to insult.

Once the preparation is complete, deal with offenses as they happen. Check with your owner or manager for permission, but most salon owners are in favor of losing the unruly customer. If the customer isn't dealt with right away, there is a high probability of recurrence.

Identify the Location and Use of Towels

Some customers like to use hand towels to cover their face during the tanning session. Others want that towel to clean up the excess sweat they leave behind from the tanning session. If your salon provides towels for customer use, here are a few pointers:

If your salon provides towels for customer use, here are a few pointers...

- Keep these towels separate from your cleaning towels. If customer towels and cleaning towels are the same size, you may want to consider using a different color to help distinguish between the two.
- Let your customers know where those customer towels are located, if they are not already placed on each tanning bed.
- Let your customers know what to do with those towels once they are done. Some states require that soiled towels be placed in a designated covered receptacle. If your salon isn't in a regulated area, consider allowing the customer leave the towel in the room so there is one less thing to worry about.
- Salon owners need to make a decision whether to provide paper towels or cloth towels. Some owners prefer paper towels to be placed in the room for customer use in removing excess lotion from their hands and for wiping up excess sweat if the customer desires. The advantage of this is that paper towels are easier to dispose of, and there's no need for washing towels afterward. The downside is that customers use paper towels to clean their sweat off of the bed. This ends up leaving micro-scratches on the acrylic. The

downside of towels is the additional labor involved in sanitizing, drying and folding.

Describe Your Salon's Sanitation Practices

***...your
customers'
number one
concern is
sanitation.***

Speaking of sanitation issues, it is really helpful to let the customer know about your salon's sanitation practices. Let them know that your facility is cleaned frequently throughout the day, and that the tanning rooms get priority attention. We mentioned previously that every customer contact surface should be sanitized with an

approved sanitizer, between every visit by a customer. It also includes customer towels, if provided, and eyewear. Addressing sanitation issues from the beginning provides customers with a higher level of comfort.

Introduce the Tanning Rooms and Equipment

Now that the customer knows how clean your salon is, it is a good time to show them your tanning rooms and equipment so that they can see for themselves. They will get a chance to be introduced to your unique mix of equipment and some general guidelines that will help them get the most out of their tanning session.

Point Out Tanning Room Signage

It almost seems unnecessary to mention the tanning room signs because they are in plain view for any customer to see; but so are most signs in everywhere else. How many have taken the time to read all of the warning signs (labels) on the tanning device? More than just a list of rules in your tanning room, signs are also there to help a customer maximize their enjoyment of their tanning session and visit at your salon.

What kind of signs should be included in the tanning room? One suggestion is a sign regarding the use of medications. For example, you may want to consider having a sign with language similar to the following example: "If you start taking medications or change medications, notify your tanning technician immediately." Another sign could include some basic guidelines for getting the most out of a tanning session. We've provided an example of a sign in Appendix D that you can use.

Your governing agency may require you to post a warning sign in each of your tanning rooms. If so, don't fight it — just consider it as an opportunity to reduce the liability of the salon. If the policy at your salon is to introduce customers to warning signs in the room, this could potentially further reduce the liability of the salon, in the event of a tanning related injury.

Introduce Equipment Types and Options

In the old days, it was popular for salons to have one type of tanning unit, and as

many of that same unit as they could afford. This assured availability, and the customer could be assured of consistent tanning results. Customers often waited in line for one particular bed because it ran hotter temperature-wise, and the conclusion was that it would tan better. We know today that hotter temperatures don't necessarily assure greater tanning results. If tanning lamps become too hot, they begin to reduce their UV output. Customers still think today that they tan better with additional heat.

Your unique mix of equipment is part of what helps you stand out from the competition. Today the variety of options could overwhelm the customer.

Don't let your customers miss out on all of the opportunities to enhance their tanning experience. Orient them to your unique equipment mix and features — it's part of what draws them and keeps them coming.

Introduce Exposure Schedules

It seems a little strange and unnecessary, but introducing exposure schedules lays the groundwork for promoting responsible tanning and for minimizing customer complaints down the road. Have you ever had a customer demand the full session time and you knew they couldn't handle it? It happens all the time. There's a certain amount of pride that goes into being able to handle the maximum time. Customers tend to think that all tanning units are the same. They've tanned in a lot of them, and they think they know what their body can handle in any tanning device in any shop. If you're entirely new to this industry, be prepared for the following types of proud posturing:

It seems a little strange and unnecessary, but introducing exposure schedules can lay the groundwork for minimizing customer complaints down the road.

- An accusation that you are trying to scam the customer by not giving them their money's worth.
- Threats to get their money back and go somewhere else.
- A demand to speak with the manager or owner.
- An insistence that their body can handle it. They've done it before, if not at your location, then at other tanning establishments.

For the experienced, you've encountered customers who actually start crying because of your limits. Others stepped outside to make a call, and became very animated while pacing in front of the store. To minimize the emotional intensity, it's helpful to provide a solid explanation as to why you are limiting their tanning time. What kinds of explanations? Try the following tips and tricks.

This is more of a preventive tip. Never ask how long the customer wants to tan. That opens the door for unrestricted tanning. A better replacement question is "how did you do at 12 minutes last time, Mary?"

Next, consider your response for demanding customers ahead of time. Don't wait for the surprise demand, then give in because you didn't have a proper response available. The following are simply suggestions based on what a number of salons have tried in the past. See if you can develop something like this, or come up with something even better.

- Offer the first session for free. If you have the latitude to do this, it may be your strongest tool available.
- You might consider showing the customer an exposure schedule and explaining why tanning should be limited. For example, "Let me show you something on the tanning device. This is an exposure schedule label. It is a minimum governmental guideline to give us a general idea of about how much time a person should be tanning during any one session. Based on these governmental guidelines you should only be tanning for 3 minutes today. Now, we have gone beyond this guideline and considered all of the criteria on your customer skin profile (the customer's tanning record). Based on our assessment you should be able to tan for 10 minutes today in this device."
- Some have further explained the potential consequences. "If we give you the full tanning time, you're going to end up getting hurt. Then it's going to take you longer to recover, and you'll be behind where you would have been if you tanned without burning. You're our walking advertisement, and we don't want both you and us to look bad."
- Some help the customer to understand how unfamiliar they are with the salon's equipment. After all, demanding customers assume all tanning beds are the same, right? Some just have more lamps than others.

Actually the customer needs to know there's more to tanning equipment than timers, lamps and fans. One goal of this training course is to build appreciation and respect for the differences in tanning equipment and performance.

Help the customer focus on what makes tanning devices different.

How do you help the customer appreciate the differences? Focus on what makes tanning devices different. "I understand you want to tan for the full time in our Super XYZ tanning bed. It definitely provides some awesome results. Can you tell me the brand name of the last tanning unit you tanned in before you started coming here? Oh, it was a

Wolff® bed? Wolff® actually licenses their name out, but they don't make tanning devices themselves. Do you remember any other names on the bed? You don't? That's okay. We're just trying to get a more precise idea of what kind of energy was going into your skin (not just UV light in general, but the intensity, the ratio of UVB to UVA, etc.) so that we make sure we are treating your skin right. How about the lamps in the bed? Did you get the brand name or model of the lamps? Usually the label is turned so that it faces the consumer. You missed that? Perhaps the wattage — do you remember the wattage on the lamps? Nobody ever told you? Did anyone ever talk about the hours on the lamps or did you ever read the hour meter on the tanning unit? You missed that too? Okay, this is a professional facility and we want to treat our customers' skin with respect. We want it to look as good 10 years from

now as it does today. We can't do that effectively if we let customers arbitrarily assign their own tanning times without matching it to current equipment specifics." In any case, tanning equipment operators should function as gatekeepers against overexposure. It is essential that you balance out the concept of "the customer is always right" with your moral, and perhaps legal obligation to prevent any tanning related injuries.

- Some have posted signs at the front lobby area stating that operator determined tanning times must be followed. "Tanning times are based on operator training, answers on the customer questionnaire, a customer's recent tanning history, tanning equipment features, tanning lamp output, etc. Please trust their decision in treating your skin with respect as they determine your proper tanning time. Thank you."
- It's common to appeal to a higher authority. "I'm sorry, but company policy only allows us to tan someone for half the maximum time on their first visit." Others appeal to governmental authority. "I'm sorry but state law doesn't allow us to do that." The natural customer response to something like this would be "Well, your competitor down the street allows me to tan the full time whenever I want to." Your response could be, "they may actually do that, and I can't make them follow the government's rules. I can only make sure that we try to do the best that we can. We will get you to your optimum tanning results though, and since you already have a tanning package with us, it looks like you'll have plenty of opportunities to not only build up to your desired result, but to maintain those results as well."
- Some create a computer limitation. "I'm sorry, but the computer won't let me put you in for a longer time." This is often effective, but there are more honest ways that are just as effective.
- Some salons are willing to sell sessions by the minute. This too is effective, however, salons that sell sessions by the minute often don't do quite as well at the end of the year as those salons that sell visits.

Undesirable and less-than-perfect solutions include:

- **The Prover** — Warn the customer, then just give them what they want to prove they should have listened to you.
- **The Waiver** — Have the customer sign an extra liability release form. This form would contain a statement about the risks of exposing beyond the salon's recommended time. It would also say something like "Despite the clear health risks of overexposure, I want to tan above and beyond the operator's recommended exposure time." The customer would be required to sign the form. While this is a common practice, the feeling is that it might be a weak tool if the customer really did decide to sue. The reason? The operator knew it would hurt the customer, and chose to over-tan them anyway. It's the operator's job to prevent that from happening. Nevertheless, it does seem to convince most customers. Once they do get injured, they realize they should have listened to the warnings.
- **The Compromiser** — That is to say, give in partially to their demands, and meet them half way on the desired exposure time. If you compromise with

them, and they end up burning as a result, that is your fault. Salons that are regulated could be cited for this practice. However, there is a creative compromise, if allowed by law. That is, the next time they come in ask how they did. If they did okay, bump them up to the next appropriate time for them. This still should never include giving them the full time, if you know that would hurt them.

- **The Fibber** — Agree to give the customer their desired time, but really only set the timer for what you originally felt was best, or something close to the original time. Even if you don't have timers on the equipment that the customer can see, many are so time-oriented they will know if they've been shorted by as little as 60 seconds.
- **The Asserter** — This is the operator that asserts their position and stands their ground without explanation to the customer. They simply stand by the policy. The only good thing about this approach is that it stays put on the exposure time, but customers need, and deserve an explanation.

We've certainly spent a lot of time on the concept of introducing exposure schedules to customers. There are other important things to introduce customers to in the tanning room; like how to operate the tanning device. Let's consider these now.

Demonstrate How to Raise and Lower the Canopy

This seems easy enough for anyone to figure out. Maybe so, but ask your fellow co-workers if they have run into any customers who didn't know how to raise and/or lower the top of the bed. If your salon, like most salons, has walls that don't go all the way to the ceiling, you can sometimes notice the lights from the tanning bed shining on the ceiling. That's because the canopy never got closed after it was opened. There might be a legitimate reason — maybe the customer is claustrophobic. To be sure, take the time to show new customers how to do it right the first time.

How to Start and Stop the Equipment

Have you ever been told what room to tan in, but weren't shown how to start the unit? Maybe you already had your tanning lotion applied and entered the tanning unit. You stared at the plethora of buttons, many with the screen printing worn away. You pushed all of them, and the tanning unit never started.

It's pretty frustrating for customers to get back of of the unit, get dressed with lotion now getting on their clothes, come up front and ask how to turn on the tanning device. Some refuse to get dressed. They'll just yell and demand for assistance. While this is unpleasant, the customer is justifiably upset.

***Have you ever
heard of the
person who sat
in the chair
across from the
tanning bed and
then didn't tan
very well?***

Just as important is to show the customer how to shut off the tanning unit. That emergency cut off switch is not for employee use only. The customer might feel a little uncomfortable, or like they are getting overexposed on a particular occasion. Maybe they are claustrophobic. There are lots of reasons why the customer might want to terminate their session early. If a customer does let you know they are claustrophobic, show them that they can start their session by raising the top completely during their session. As they return for sequential visits and become more comfortable, they can experiment with lowering the top just a little more on each occasion.

How to Operate Facial Tanners

Today's facial lamps have start and stop options. Some tanning devices even offer the customer the advantage of controlling the intensity of the lamps with a dimmer switch. Facial lamps are usually considered as an upgrade option, so show your customers where and how to take advantage of this feature.

How to Use Additional Features

There are lots of additional features that are available with tanning equipment. Personal body fans or air conditioning options are standard with most tanning devices. Other options your customers may want to be able to access for enjoyment include radios and CD players, speaker controls, headphones, misting options, aromatherapy options and even narrow band light therapy options. As with facials take the time to show your customers how to enjoy these experience-boosting features.

Introduce Proper Tanning Technique

Now that the customer knows how to operate the device, show them how to get the most out of their tanning session. Here are some of the basics.

Demonstrate Proper Positioning

A lot of people don't actually know how to properly position themselves in a tanning device. The first half of the tanning session a person should position themselves with their back to the bottom acrylic, feet spread apart so they can tan between their legs more easily, and have their hands behind their head so they can tan under their arms more easily.

The second half of the tanning session, the tanner should bring their feet back together so they can tan outside of their legs more easily, then bring their hands down to their sides. This allows them to tan any crevices in their neck area and the inside folds of their arms.

A lot of people don't actually know how to properly position in the tanning device.

Using this technique means that customers should never have to turn over while tanning. That means reduced risk for cracked acrylic, which is an expensive

replacement part.

If they Plan to Tan All Over...

Instruct your customers that if they do plan to tan all over, if they do plan to tan everywhere, be sure to keep those sensitive areas covered up for two-thirds of initial tanning sessions and then gradually build up from there. Of all areas for a person to sustain a temporary skin injury, this is the worst.

Remove all Personal Articles

Mention too that besides clothing, it's best to remove everything prior to tanning. Watches should be removed to avoid tan lines. Jewelry should be removed because it can scratch the acrylic. They should be reminded to keep their valuables somewhere they won't forget to collect them afterwards. Body piercings should be included here too because they can scratch acrylic. Ideally the only things they should be wearing by the end of the tanning session are protective eyewear and tanning lotion that they purchased from your salon.

Keep Skin as Clean as Possible

Here's where your customers will want to do some advance planning for all future visits. For optimal tanning results, customers should keep their skin clean from all make up as this can interfere with tanning results.

As mentioned in chapters 4 and 6, perfume should not be applied on tanning days because it tends to burn skin when exposed to UV light. The evidence is in the red spots on either their neck or forearms. Let's throw anti-acne preparations in the mix, because of their ability to burn too.

It doesn't hurt to exfoliate periodically either. This clears skin of any excess skin that is about to slough off. Those skin flakes can tan just like the rest of the epidermis, and interfere with optimal tanning results.

If You Feel Uncomfortable...

Despite your best screening efforts, sometimes a person may be getting more exposure than they need. Let them know that if for any reason they are feeling uncomfortable, nauseous (maybe due to dehydration), burning or tingling sensations, developing rashes, etc., they should turn the unit off and exit the tanning device. They should notify the tanning technician on duty that they got out of the tanning unit early and why.

Explain the Importance of Protective Eyewear

It's just you here, wherever you are, reading this book at the moment. How often do you really wear your eyewear? Never? Is it once in awhile? Is it most of the time? Is it every second the lights are on, no matter what? If you're like most of the attendees in our classroom programs, you don't wear your eyewear that often.

There's never a better time to start than now. The biggest reasons most don't wear their eyewear all the time is that they don't want to get raccoon eyes or that they don't fully appreciate the risks involved with not wearing eyewear. We spent time discussing this in Chapter 5.

Emphasize that long-term subtle, permanent changes are taking place (to eyes), even if they don't feel any pain or discomfort.

Don't let your customers eyes fall prey to those harsh lights. Emphasize that long-term subtle, permanent changes are taking place, even if they don't feel any pain or discomfort. Most protective eyewear is easy enough to figure out how to use. Go ahead and show them how to put that eyewear on, just in case. Australia's tanning law provides the perfect wording on this. The eyewear chosen for use should provide a "light-tight seal" around the customer's eyes.

Introduce Services, Products and Programs

The tour is a great time to bring up additional services that you offer. Let's consider for a moment some of the services that are offered at tanning salons, besides just tanning.

Spray Tanning Services

Assuming that it is already a part of your salon's business this is an easy add on to any tanning package, based on the tanning goals of the customer. If they are in a hurry to get nice looking results, then spray tanning is the way to go. This is also the one time where you can actually allow the customer to tan twice in one day. They can tan in a regular tanning unit, then hop into a spray tanning unit and get some potentially amazing results. If your salon offers airbrush tanning services, you have the option of offering "partials" as well. That is to say, a customer can have just their face darkened a little, or maybe they've developed some white spots for one reason or another. You would be able to darken just those areas without having to airbrush their whole body.

Narrow Band Light Services

For thousands of years many have sought long and hard for that "fountain of youth." It has finally been discovered, and rather than being a fountain of water, it has always been a fountain made of light — narrow band light that is.

Narrow-band light comes in a variety of forms, red, yellow, blue, green near-infrared and far-infrared. How is narrow-band light used today? It's primarily used for epidermal and dermal repair, as well muscle tissue and ligament repair. It's nice to know

Narrow-band light...is primarily used for epidermal and dermal

that there is finally a kind of light on the market today that can be beneficial to skin, and have only rare, if any, side-effects. This service has huge market potential for its ability to (depending on the color used) reduce fine lines and wrinkles, minimize age spots and other overly pigmented areas of skin, whitening teeth, reducing bad teenage acne, assisting those with rosacea, etc.

***repair, as well
muscle tissue
and ligament
repair.***

Other miscellaneous services could be offered at your facility. We wanted to take the time to highlight just a couple of these. Besides services, tanning products are essential offerings at tanning facilities.

Benefits of Tanning Products

Skin was never meant to be exposed to ultraviolet light alone. At least not when it comes to indoor tanning. It was meant to be exposed to both ultraviolet light and to indoor tanning products. The very first complement to assist the indoor tanning industry was tanning lotion. It is the oldest and strongest add on item in the indoor tanning industry today. Its market potential should not be ignored.

Indoor tanning technology has come a long way. We mentioned that it used to be simple, using a few ingredients to reach the desired result. Today's products are very advanced. Each year, new ingredients and ingredient combinations are introduced to maximize a person's tanning potential.

Why do indoor tanning products cost so much? Consider:

- There's an awful lot of research and work that goes into developing new and better products. A pharmacist in one of our classes claimed that tanning products are more difficult to formulate than pharmaceuticals because of all of the independent variables of each ingredient that must be considered. Getting all ingredients to work together instead of against each other is pretty challenging.
- To get that lotion to perform the same way on all sectors of skin is also an amazing feat.
- Let's not forget expense of developing new bottle designs and shapes.
- There's also a huge expense in marketing those products. Sending representatives on the road to conduct training on new products isn't cheap. Add on lots of other expenses like non-stop advertising, the expense of support staff, the cost of land and a building to warehouse those products, etc.

Many of your customers will be willing to pay top dollar for the ultimate tanning results. That's where you come in. Once you can appreciate what goes into indoor tanning products and what they can do for a person's skin, you've gone a long way toward being able to sell products in your salon.

Get to know your manufacturer's product line and be able to describe the features and benefits. These are powerful tools. Just be careful not to give too many

features, and not match the benefits. For example, don't say something like "it's really got a unique bottle design and also has 14 different types of bronzers. That key chain that comes with it is really cool too. Yeah, it's a really nice key chain..." Something better might be "this product is really helpful because it has a unique tanning complex that provides synergistic tanning results. That just means you'll get deeper, darker longer lasting tanning results, and you will get there faster."

It may take a little preparation, but it's actually fun to sell tanning products. Often times it's as simple as asking your customers what they're looking for, or what they like in tanning products. Do they like tingle? Cooling action? How about bronzers? Do they like to sparkle or shimmer? Then recommend a premium product that will give them the best results.

One precaution your customers should be made aware of. That is that they should only be allowed to use the products that your salon has approved. Many of the outdoor tanning products on discount store and drug store shelves today have mineral oil and/or sunscreen products in them. Mineral oil stains acrylic and sunscreen products are difficult to remove. The result is reduced UV exposure on those affected parts of the acrylic. Your customer saved a few dollars on their product, but they cost everyone else a quality tan.

Miscellaneous Products and Programs

There are plenty of other products that are available over the counter at your salon. Teeth whitening products, touch up sprays; if spray tanning is offered. Even if not, touch up sprays might be just the thing to help cover up those unsightly white spots. Certainly now might be a good time to discuss tanning packages, EFT (electronic fund transfer) programs, and any specials that you might be running right now.



MODULE THREE REVIEW

1. There's nothing wrong with wearing clothing or jewelry that is attention-grabbing at work. **True or False?**
2. 93% of communication with your customers that walk into the salon is non-verbal. **True or False?**
3. It is always preferable to wait until the caller ID shows who's calling prior to answering the phone. **True or False?**
4. There is far more to tanning than the risky "tan-by-feeling" approach. **True or False?**
5. Tattoos usually heal in one to two weeks. **True or False?**
6. A photosensitivity test involves putting a tanner in a tanning unit for minimal starting times to see how their skin will respond to UV light, then gradually increasing the tanning time if there are no adverse effects. **True or False?**

7. Disrespect is the true reason behind some customers using your tanning rooms as bathrooms. **True or False?**
8. Introducing customers to exposure schedules can lay the groundwork for minimizing customer complaints down the road. **True or False?**
9. Showing new customers how to start and stop tanning equipment waste's the customer's time. **True or False?**
10. It's a rare person that doesn't know how to position themselves in a tanning device. **True or False?**

[View Answers...](#)

MODULE 4

OPERATING SUCCESS

CHAPTER 10: Equipment Basics and Maintenance Tips

Introduction to Maintenance

We've covered biological basics and customer basics. Let's switch gears and spend some time considering the basics of tanning equipment and maintenance. For anyone less than technically minded, our job is not to bog you down with unnecessary information. Rather it is to prepare you with the "basics" so that you can more adequately represent your salon, and so that you can save on potential larger maintenance expenses later.

To do this, we will touch lightly on identifying basic equipment components, then add in a little bit of information on both maintenance and information regarding the kinds of things inspectors look for.

Starters

While we are going to keep the material pretty basic, as promised, we just can't resist asking one trick question — What do you suppose the purpose of starters is? Here's a very small clue: It's to start the _____ (fill in the blank). The correct answer is *lamps*.

Starters are found at the end of lamps. They are about the same shape and size as a "C" sized battery, only instead, they have two tips at one end, unlike a battery. The tips make contact with the two pins at the lamp end.

When the tanning bed is energized, those starters will send an amazing amount of energy through those pins, and into the tanning lamp. You never see it, but inside the tanning lamp is a filament, just like in a standard light bulb that you might screw into a light socket in your house. So much energy is sent inside the lamp, that it heats those filaments up to thousands of degrees in fractions of a second. Because filaments get so hot so fast, little bits of the coating on those filaments begin to vaporize and settle on to the end of the lamp. Over time enough of that filament collects onto the lamp end that it develops a "black end."

Now what do your customers think when they see black ends on tanning lamps? They believe they will get poor tanning results. The new type of starter has two

advantages. First, it gently elevates the lamp's energy until it turns on. It's still lightening fast, but comparably much slower and far more controlled. Second, it reduces, if not eliminates lamp blackening. If your customers don't see black ends, they won't complain. There is a third advantage too. The life expectancy of these new starters is somewhere around 10 years. The original starters need to be changed every other lamp change.

Fans

Tanning beds and booths have been made with cooling fans. So here's another trick question: What is the primary purpose of fans? We'll even start you with another fill-in-the-blank: The purpose of fans in tanning equipment is to cool the _____. If you guessed the tanner, we are actually considering the equipment fans.

If you guessed the primary purpose is to cool the equipment down, you are close. The primary purpose of fans is to cool the lamps. Tanning lamps work best if they don't get too hot. When they get too hot, tanning lamps reduce their UV output. They can also get so hot that the UV output stops altogether. The customer thinks they tanned well because of the heat flush in their face. But it's a false impression.

The other big problem is that lamp longevity is greatly reduced. So not only is present performance lost, but overall lamp life is reduced too. Under ideal circumstances, the most you can expect in terms of UV performance is 80 percent of a lamp's rated life. Many salon owners replace their lamps at 60 to 70 percent of the rated life on those lamps, otherwise their customers will begin to complain. Heat build up can reduce lamp life up to 50 percent.

Have you ever been in a tanning bed that got so hot, you couldn't keep your calves and heels on the acrylic? That was due to a fan problem.

How do you clean internal fans? The internal tanning fans we are referring to are the box style fans. The first step is put on protective eyewear. They are the UV safety type glasses that can fit over a pair of glasses. Next, energize the tanning unit. Take a brush with stiff nylon bristles and brush the vent grills until you remove the dust. Then with the bed running, push those bristles lightly into the fan blades. It will sound bad, and even stop the fan blades. That's okay. You're brushing the dust off of the leading edges of the blades so that they will balance out and promote the full flow of fresh air.

By comparison, axial fans are located on the ends of the tanning beds. They look like cylinders, or as some might call them "squirrel cages." Depending on your equipment and your ability to reach those fans, a brush would still work best. If it's too far to reach then try using a vacuum. Sometimes these fans are located so far inside the equipment that they can't be reached. In those cases, it's best to call your local distributor. They usually have a service person, or some trusted service persons that can take care of your service needs.

Sometimes it's just best to call a service person anyway, especially if you offer

spray tanning or hair care services. Tanning equipment fans are really powerful and will pull spray tan mist and hair spray from pretty far away. Mist is pulled into the tanning units and collects most noticeably on the back side of acrylic and on air filters. Mist can also cause dust to build on the internals.

Lamps

For all the bright light that tanning lamps put out, tanning lamp technology can be a pretty dark and murky subject. Sometimes it's just easier to remember that tanning beds have lamps, and those lamps have to be replaced every now and then. But taking time to explore the topic could end up saving a salon a lot of money. We already discussed lamp temperature; let's consider some lamp-related concepts and terms.

- **Low Pressure** — Low Pressure refers to fluorescent tanning lamps. They also happen to be low-energy by comparison with high pressure lamps. “Low pressure” refers to an air vacuum inside the lamp. If you were to open a jar of apple sauce, you would hear a sucking noise as the seal of that jar is cracked. That's because there is a low pressure air vacuum inside that jar too. If somehow you were able to twist off one of the end caps on a fluorescent tanning lamp, you might get that same noise, only not quite as powerful.
- **High Pressure** — High Pressure refers to those small lamps that fit behind the blue or purple facial plates in your tanning equipment. They look like baby halogen lamps. They seem to put out as much heat as they do light. These lamps are called high pressure; not because they are high-energy, although they happen to put out considerably more energy than low pressure lamps do. They are called high pressure because there is internal air pressure inside those glass lamps, just like with a balloon or a car tire. If you were to drop a high pressure lamp on a tile floor, it would explode as pieces break up and scatter everywhere.
- **Medium Pressure** — It seems like it would make more sense to put this in between low pressure and high pressure, but academically, there is no such thing as a medium pressure lamp. No one can show you a photograph of one, because it just doesn't exist; at least not in the tanning industry. So the term “medium pressure” is really a marketing term for an upgrade bed. The term is not as popular as it once was, but is still used by some salons as a marketing tool to help customers understand that “medium pressure” beds (so called) will out-perform entry level units.

When it comes to equipment, even the term “high pressure” has an academically correct meaning and a marketing meaning. Academically, a true high pressure bed is one that has all high pressure lamps, all across the top and side. Depending on how new or old that device is, there will either be a mattress on the bottom, or an acrylic sheet with all high pressure lamps underneath. There is not a single fluorescent tanning lamp in the unit. That's an academically true, high pressure bed. There are some stand up booths that have all high pressure lamps in them too. High pressure tanning devices are so expensive, they can cost as much as a small house.

When it comes to marketing in your shop, do you know what a true high pressure bed is? It's the best tanning device in your shop, period. It will outperform any of the other tanning devices in your shop and you charge a premium price for those premium results.

UVB to UVA Ratios

Have you ever heard of lamps being referred to as a 5.0 or an 8.0? What does that mean anyway? Do you remember when we said that ten percent of what a lamp puts out is ultraviolet light? The reference to 5.0 is supposed to mean that five percent of the total **UV output** of that tanning lamp is UVB. The other 95 percent is UVA.

That's according to one manufacturer's standard. Another manufacturer would read that lamp's output a little differently and call it a 6.5 perhaps. There's no standardization for the UV output reference among lamp manufacturers. Lotion manufacturers have a similar absence of standardization when they talk about tingle factors in their product. One manufacturer might refer to 100x on their bottle, and that might be equivalent to some other manufacturer's 10x or 40x. It's all in the way a manufacturer chooses to conduct their measurements.

Lamp Replacement – When, What and How

How do you know when it's time to replace a lamp? One way is to refer to the hour meter on your tanning units. When they get to within 70 to 80 percent of the lamps rated life, it's time to change the lamps. There is a better way though. Start with your manufacturer's recommendations.

It would be helpful to get a UV meter from your local distributor. Start your tanning unit and let your brand new lamps warm up for about five minutes. Measure the output reading on the lamps. Always measure the lamps at the same spot on each lamp for an accurate reading. If you were to measure the strength of any one lamp at several points along the length of the lamp, you would notice several different readings along the length of the lamp.

Choose a spot – start reading all tanning lamps a third of the way in from the end of the lamp, every time you read the output of a lamp. (Just for clarity's sake, do this with the acrylic sheet removed.) Mark down those measurements in a lamp output log when those lamps are brand new. Re-read the output periodically. If your customers ever begin to complain, immediately re-read the lamps, log the low output and change them as soon as possible. Then be sure to change lamps prior to ever getting to that same output reading again. As a rule of thumb, you never want to let your readings drop more than about 30 percent.

There's more to know about replacing lamps than just **when**. **What** are you supposed to replace those lamps with? Most countries have a national standard requiring that **replacement lamps be compatible with the original**. There's a lot that goes into the meaning of the word **compatible**. The U.S. and Canada require

that the replacement lamp be within 10 percent of the original lamp's energy output. That's not a simple wattage reference. But beyond that, they also require a compatibility statement for replacing lamps.

Compatibility statements are documents that the lamp manufacturer provides, stating that the replacement lamp you are using is compatible with, or equivalent to the original lamps that came with the tanning device at the time of manufacture. A label on the bed will tell you what brand and model of lamp came with the unit originally. Just remember when you go to look for replacement lamps that you refer to the label on the device for correct information, rather than on the labels on the lamps that are currently in the tanning device. Even if not required, it's helpful to keep a log of lamp replacement. Currently Oregon, Louisiana and North Carolina require that a lamp replacement log be maintained.

It's also important to cover **how** used lamps are to be disposed. The U.S. has a national standard for the replacement of fluorescent tanning lamps. Most states have an enhanced state rule. Quantity is one issue. If you only have a few lamps a year from household replacements, that wouldn't be an issue.

It's also important to cover how used lamps are to be disposed.

But there are so many used or "spent" lamps generated from tanning salons that lamp disposal rules must be followed. If you are in some other country than the United States, particularly Canada, Europe and Australia, look for similar laws to be developed at some point if they haven't been already.

Why so much concern about lamps, especially used ones? It's all about the leftover mercury that is inside those lamps. Fluorescent lamps of any kind need mercury to convert electrical energy into light. The amount in each lamp is so little these days it could be considered as insignificant (about 1/100th the amount in a mercury thermometer). Maybe it would be if there wasn't such an abundance of fluorescent lamps.

So how do you properly dispose of those spent lamps? It depends on the laws in your area, and the available acceptable methods. The preferred method among lamp manufacturers is to have those lamps **recycled** at a [lamp recycling facility](#). The next best way is to have them transported to a hazardous waste collection site. The protocol for doing this is generally to save the carton from the replacement lamps and put the old spent lamps in that box. Seal the box with tape and mark something like "Waste Lamps" on the outside of the box. Lamps are to be disposed of within one year of the date they are removed from the device. It's best to get some kind of receipt or certificate of recycling so that you can prove that the lamps were disposed of properly. The cost for proper disposal varies from one facility to the next. Visit epa.gov/bulbrecycling and/or lamprecycle.org for more information.

Pistons

These are the items on either end of the tanning bed that hold the top part of the

tanning bed (i.e. the “canopy”) up. There are other ways of holding the canopy in its upright position, but pistons are still the most common.

“Pistons” are the official name, but they get called more names than probably any other tanning bed component. Some of those alternate names are springs, cylinders, lifts, struts, props and shocks. The words “gas” “hydraulic” or “pneumatic” often get thrown in front of these terms.

The best time to replace pistons is when the canopy doesn’t stay put when it’s lifted. Even if pistons are weak they often hold the canopy in its most upright position. But an inspector who’s paying attention won’t stop there. They will push the canopy down a few inches, then a few inches more to ensure it stays put. If the canopy drifts some, they will probably recommend that you replace the pistons. If the canopy comes crashing down, they will tell you to take that unit out of service until the pistons are replaced. If you don’t, someone might get hurt, especially with some of the heavier, more modern equipment.

Here are a couple of maintenance tips:

- Some tanning units have “brakes” at the back hinges of the tanning bed. If your tanning device(s) has brakes, these can be adjusted to reduce the work load on the pistons and make them last longer.
- At night, be sure to keep canopies in their full upright position. This puts those pistons (or any form of suspension system) in their resting position, and they will last longer that way.
- When replacing pistons, it’s best to keep the fatter end up, and the skinnier end down. They’re designed to last longer that way.
- It’s best to replace both pistons at the same time, so that one piston doesn’t have to work harder than the other.

Acrylic

Tanning acrylic is a special grade of material that allows more UV light through than any other type of material; so don’t get the idea that you can save a buck by getting replacement acrylic from some hardware store. That kind of acrylic blocks out virtually all ultraviolet light.

Replacing Acrylic

How often should acrylic be replaced? Recommendations vary from 1500 hours to 3000 hours. There are variables that will help determine whether acrylic should be replaced sooner or later. Lamp and heat intensity, and/or the use of offending agents both increase the need to replace acrylic sooner. Of course it’s time to replace acrylic when it gets cracked. Be sure to check with your distributor for your specific replacement times.

Under normal conditions tanning grade acrylic solarizes and “crazes.” “Crazes” are those tiny splits or cracks that are often grouped together in the acrylic. No one tiny split is big enough to be a cause for concern about the acrylic breaking, but grouped

together, they are a sign that the acrylic is losing its ability to allow ultraviolet light through. If the acrylic degrades too badly, you could replace the tanning lamps in that device and have very little difference in the performance of that bed.

Undesirable Cleaning Chemicals

Undesirable cleaning chemicals are those household cleaning chemicals that are good for their specific application, but not on tanning grade acrylic. Common household cleaners are window cleaning solutions, grease and spot removers and rubbing alcohol. These things ruin tanning grade acrylic. The best cleaning chemicals are those medical grade sanitizers. They clean better, and they don't ruin the acrylic. Your distributor or governing agency will guide you.

Reasons for Rashes

Despite your best preventive efforts, some customers will break out in rashes. There are several possible reasons for this. The first is that the sanitizer was not properly diluted. Mixing sanitizers at extra strength levels won't kill more germs, but will cause customers to develop rashes. If the tanning lamps have just been changed and new customers tan at normal exposure times, they could develop rashes (sun poisoning).

Maybe the customer didn't develop rashes, but they did get pretty red and itchy. Sanitizers kill germs well, but don't get rid of every trace of everything off of that acrylic. That means sanitizers will leave traces of tanning lotion on the acrylic too, even high tingle factor lotions. There are no germs to worry about, but you may need to sanitize first, then go back and wipe down the bed with some water afterwards to remove the traces of that high tingle lotion.

Tanning Device Maintenance

There is a basic type of maintenance that is performed each time a customer tans. This is what you do when you sanitize tanning equipment and customer contact surfaces between customer uses. Periodically, it's important to do a little more in depth cleaning.

In depth cleaning involves a partial disassembly of the tanning device. Each tanning device the salon purchased was supposed to come with an owner's manual (sometimes referred to as "user instructions"). The owner's manual has detailed instructions on how to perform the disassembly, cleaning and reassembly. In the absence of these instructions equipment should be cleaned at this level at least every 200 hours of use. Tanning Dynamics assumes no liability for any damage incurred by performing this maintenance. Any work around electrical components should only be performed by trained personnel.

Disconnect the power source to the tanning equipment. Next, remove the tanning acrylic sheets. You should have a second person on hand to assist with this as the acrylic sheets are both heavy and flexible, but can crack or break easily. Now

carefully remove the lamps, storing them in a safe area where they won't be accidentally broken.

You're now ready to begin cleaning. Wipe down all areas around the lamp sockets to remove the dust. Wipe down the reflector area too, to get rid of dust. Keep cleaning until the reflectors look polished and completely clean. With older equipment you may have some areas that won't shine as if they were brand new. Do the best you can. Then wipe down each of the lamps to remove the dust off of them. Carefully replace each of the lamps adjusting them so that the lamp labels are all on the same side, facing up. (It's easier to refer to lamp information when needed). Reconnect the power source to the tanning device. Put on a pair of UV safety glasses and energize the device. Are all of the lamps working? If not, you may need to make some adjustments to the lamps until they do work. Once they are all working, then turn off the tanning device and reinstall the acrylic with assistance from a second person. Now that you've completed this maintenance, it's a good idea to keep a log.



Chapter Ten Review

1. The purpose of starters is to start the tanning bed motor. **True or False?**
2. The primary purpose of tanning equipment fans is to cool the lamps. **True or False?**
3. High Pressure lamps are the kind of lamps used in facial lamp sockets. **True or False?**
4. Under normal condition, tanning grade acrylic "crazes." **True or False?**
5. Mixing sanitizers too strongly can cause some customers to break out in rashes. **True or False?**

[View Answers...](#)

CHAPTER 11: Procedural Success — Operating Basics

Introduction

Part of the behind-the-scenes administration of your facility involves developing an operating standard for running your business. For the benefit of those who are new to this industry, we felt it important to include a sample **general** set of operating procedures.

If you are an owner, you will need to develop some procedures beyond this general standard that are **specific**. Specifics you would address for your own facility include opening and closing procedures, touring policies, customer service guidelines, procedures for handling specific issues at your store (such as the management of pets being brought into the facility), phone guidelines for both receiving and making calls, inventory procedures, pay policies and procedures, dress code, facility-related safety procedures, and other facility-specific administrative procedures. Below is a sample set of general procedures.

Operating Procedures

Note: If the words “shall” or “must” are included here, then there is legal precedence by some governing agency to require the procedure. If the word “should” is used, it is simply a recommendation.

Initial Screening Procedures

Completion of Tanning Profile or Client Card. Each consumer shall complete a tanning profile or client card prior to their initial visit. Client cards and any associated computer records shall not be shared. A formally trained operator shall ensure the information contained in the client card is complete and accurate to the best of his or her ability. The information contained on the card should be updated on a regular basis.

Suitability of Consumer Use of the Tanning Equipment. Suitability of consumer use shall be determined by a formally trained operator by reviewing all relevant information, such as tanning history, skin type and condition, medications, medical history, etc. If a consumer meets the basic profile for tanning, then the initial exposure duration shall be determined by a formally trained operator. The maximum exposure duration shall not exceed the maximum limits of the exposure schedule label listed on the tanning device. The exposure times for subsequent visits may be set by a facility trained operator, provided a formally trained operator is physically present at the facility, and the formally trained operator has predetermined the exposure times for the subsequent visits. The sequential spacing of exposures (how many hours or days a consumer must wait between tanning sessions or how many sessions a week are allowed) shall not exceed once per day.

Medications Procedure. Consumer use of medications shall be determined by a formally trained operator upon the initial visit by the consumer. A list of potentially photosensitizing drugs and substances shall be readily available at all times if required. In the event a client is on medication (ingested or topical, and prescribed or over-the-counter) the consumer’s initial tanning times should be reduced to minimal exposures and gradually increased until the consumer’s UV light tolerance has been determined, or until they reach the manufacturer’s exposure schedule limitations, whichever comes first. Those taking any medication in the psoralen family shall not be allowed to tan.

Minors. A formally trained operator shall require that a minor (under the age of 18 or

lower where applicable) sign the warning statement and a minor consent form. The minor's parent or legal guardian (or tutor in Louisiana) shall also sign the statement in the presence of a formally trained operator. Additional requirements for minors shall be followed where applicable.

Consumers with Skin Problems. Consumers with current or previous skin problems shall be warned to consult their physician prior to using tanning equipment. The facility should document on the client card that they have warned the consumer to consult a physician. It is strongly recommended that a permission statement from the consumer's physician be kept on file.

Consumers with Current or Previous Other Health Conditions. It is recommended that a physician's permission statement be kept on file for consumers with any health condition of concern who are allowed to tan.

Instructions to Consumers

Consumer Requirements. Prior to initial exposure a formally trained operator shall require each consumer to read a copy of the federal radiation warning specified in 21 CFR 1040.20 (d)(1)(i) or a different version where required, and sign a statement that the warnings were fully understood.

For Illiterate or Visually Impaired Persons Unable to Sign Their Name. The required warning statement shall be read by a formally trained operator, in the presence of a witness, and the witness and the operator shall sign a statement that acknowledges they have done so.

Consumers with Contact Lenses. Consumers wearing contacts should be advised to use eye moisturizing drops.

Removal of Makeup and Other Substances. The consumer should be advised to remove all makeup, lotions or sunscreens and perfume or cologne prior to tanning. Many of these products may aid in skin photosensitivity or aggravate a pre-existing condition in the presence of ultraviolet light.

Indoor/Outdoor Tanning. Consumers should be instructed not to tan indoors and outdoors within a 24-hour period at a minimum or a greater length of time if indicated on the manufacturer's exposure schedule.

Nude Tanning. Consumers wishing to tan nude should be instructed as to exposing the nude parts one-third of the recommended exposure time until skin pigmentation (color) gradually matches the rest.

Use of Protective Eyewear

The consumer shall have protective eyewear compliant with the FDA's regulation [21 CFR 1040.20(c)(4)] while tanning at the facility. A formally trained operator shall instruct the consumer to use protective eyewear. As applicable, the eyewear that consumers have brought shall be inspected for FDA compliance and usability (i.e.

no cracks and no worn or missing straps). Proper vision shall be maintained to ensure consumer can locate the emergency cut off switch. Consumers refusing to wear protective eyewear shall not be allowed to tan.

An adequate number of protective eyewear (spares) shall be available in the event a consumer does bring their own FDA compliant eyewear. If the eyewear is designed to have elastic straps, these shall be properly attached to the eyewear. The operator should explain to each consumer why protective eyewear is important. In addition, those who have recently had any type of eye surgery should consult their doctor prior to tanning.

Tanning Device Operation

Operation of the Tanning Equipment. A formally trained tanning equipment operator shall give the consumer complete instructions on how to operate the tanning equipment. Examples include: Location of the on-off switch and emergency cut-off switch; how to properly raise and lower the canopy; description of body positioning to include floor markings or comfort positions; and instructions on how to adjust miscellaneous consumer controls.

Equipment Timer Settings. It is the registrant's or licensee's responsibility to ensure that consumers are not allowed to reset the timer for a period of time greater than the manufacturer's recommended exposure time. All tanning equipment shall be provided with a remote, override timer control installed outside and away from the room where the tanning device is located.

Precautions for High Pressure Equipment or Equipment with Facial Tanners. If the tanning equipment is high pressure, the operator shall instruct the consumer about any manufacturer's procedures for turning over half-way through the session, etc. If a tanning unit incorporates a facial tanner, the operator shall describe to the consumer how the option is to be used correctly. SPECIAL NOTE: Equipment with high pressure lamps shall not be used if the filter plate is damaged, broken, or missing, unless the corresponding lamp has been disabled manually or through the tanning device's automatic safety switch. Use of the tanning equipment in this condition without disabling the corresponding lamp may result in serious burns.

Maximum number of people allowed in a tanning room. Only the consumer who has been properly screened for tanning is allowed in the room with the tanning device. Children, other relatives, guardians, associates and friends will not be permitted in the tanning room while the tanning device is energized. Handicapped persons needing assistance can be aided by another person prior to or immediately following a tanning session.

Tanning Equipment Testing and Maintenance

Timer accuracy. The timer must be accurate within plus or minus 10 percent. The timer shall be operational and shall be tested periodically, at least annually to insure proper operation. A log of timer tests must be kept if required by a tanning facility's

governing agency.

Emergency cut-off switch. The emergency cut-off switch shall be operational and tested periodically. A log of emergency cut-off switch tests must be kept if required by a tanning facility's governing agency.

Testing Requiring Exposure to Ultraviolet Light. Any testing or maintenance to be performed that requires exposure to UV radiation, must be done while using protective eyewear. Clear or tinted LTV-protective eyewear should be worn by the person(s) performing the service.

Lamp and/or Filter Replacement. The tanning facility registrant or licensee shall ensure replacement of defective ultraviolet lamps or filters with a type recommended and specified by the tanning equipment manufacturer. In the event a lamp is used that is not specifically recommended by the tanning equipment manufacturer, a compliant equivalency document shall be obtained from the lamp vendor at the time of purchase and maintained on file. A log of lamp replacement shall be maintained on file where required.

Lamp Replacement Frequency. The registrant or licensee should ensure replacement of UV lamps at the frequency specified by the product manufacturer.

Maintenance Recommendations. The recommended maintenance schedule as listed in the owner's manuals of all tanning devices should be followed. However, in the event a maintenance schedule is not available, at the absolute minimum, the tanning equipment should be cleaned (particularly cooling fans), reflectors polished, lamps wiped, acrylic cleaned and polished every 200 hours of use. A knowledgeable, trained person should only perform operations around electrical components. If during the performance of this maintenance any exposed wiring that looks discolored, the facility should contact their preferred service provider. Pistons should be checked at their connecting points for any necessary tightening. For standup booths, all moving parts and hinges should be cleaned and lubricated. Tanning Dynamics assumes no responsibility for any damage or injury incurred by performing this maintenance. All equipment maintenance should be documented in a maintenance log.

Figure 11.1: Maintenance and Lamp Replacement Log

MAINTENANCE AND LAMP REPLACEMENT LOG			
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*
UNIT #	UNIT HOURS	UNIT MANUFACTURER/MODEL	UNIT SERIAL NUMBER(S)
DATE	SERVICED BY	LAMP BRAND(S)/MODEL(S)	MAINTENANCE CODE(S)*

*Maintenance Codes RA: Replaced Acrylic RL: Replaced Lamps RLF: Replace Lamp Filters (Enter new Brand/Model with RL & RLF codes)
 RP: Replace Pistons CC: Complete Cleaning of Acrylic, Lamps, Reflectors and Fans OW: Other Work (describe work performed)
 © Tanning Dynamics 2006 202 Von Holten Dr., Greenville, SC 29617 1-866-626-7297

You may also download this from
http://supplements.tanningdynamics.com/chapter_11e-lamp-replacement-log.pdf

Sanitation and Replacement

Tanning Equipment Sanitation. After each consumer use, the tanning device shall be sanitized with an approved sanitizer intended for use on tanning equipment, and shall be sanitized by a trained operator. The sanitizer shall be mixed and used in accordance with the manufacturer’s directions. Employees who mix sanitizers and/or spray diluted sanitizers should wear safety glasses. All consumer contact surfaces shall be properly sanitized.

Sanitation of Pillows. A formally trained operator shall routinely inspect vinyl pillows. Bacteria and viruses can thrive inside the warm foam of pillows that have split vinyl covers. Any split or cracked pillow shall be replaced immediately. All pillows shall be sanitized after each use.

Sanitation of Acrylic. Excessive scratches and cracks in acrylic can also harbor bacteria and viruses. Mildly cracked or crazed acrylic should be replaced. Severely cracked acrylic shall be replaced immediately if the crack(s) could lead to possible consumer injury.

Sanitation of Protective Eyewear. Unless disposable eyewear is used, eyewear from the facility shall be sanitized prior to each consumer use. The eyewear shall first be cleaned to remove buildup of mascara, etc. Both eyewear and corresponding

elastic strings, if applicable, shall then be sanitized. The eyewear shall be soaked if indicated by the sanitizer manufacturer. The eyewear shall then be rinsed with water to remove sanitizer residue.

Tanning Device Injuries and Emergency Contacts

Policy for Actual and Alleged Injuries. The registrant or licensee shall ensure that a policy is enacted to address handling of consumer complaints involving actual or alleged tanning device related injuries. Each tanning facility operator shall be familiar with the specific first aid procedures for actual injuries, as well as procedures for managing accompanying complaints, whether tanning device related injuries are actual or alleged.

In cases where the operator recognizes malfunctioning equipment, turn off the unit immediately. Remove the consumer from the area. Assess the consumer's current condition. If necessary, assist the consumer in gaining medical attention. Report the incident to facility management. Contact a registered service provider for repairs. Keep the unit out of service until the defect is corrected.

Reporting System. If required, the registrant or licensee shall submit to the regulating agency a written report of consumer injury for which a consumer complaint was made, actual or alleged, where required. This report shall be submitted to the regulating agency within 5 days, or sooner if so mandated by the governing agency's mandated deadline and include all agency required information. A copy of this report shall be maintained by the facility for additional reference by the agency, where required.

Emergency Contacts. Emergency contact information shall be easily accessible if required by the facility's regulating agency. A list of these emergency contact numbers should be kept by each facility phone at the facility. Examples of emergency contacts include the nearest hospital, nearest fire department, emergency medical services or emergency 911 service, if available; nearest police or sheriff's department, the phone number of the facility's regulating agency and the contact numbers for the owner and manager(s) of the facility.

Facility Training

Site Specific Training. Each tanning equipment operator shall receive site specific training. This training shall take place immediately upon employment of the person as an operator, and a record of each operator's training shall be kept where required.

Formal Training. Each operator shall complete formal training. Formal training shall be completed by means of a government-approved (where required), independent, third party organization. Formal training shall take place prior to functioning as a tanning operator. Site specific trained operators who have not completed formal training shall not be left alone to function as an operator. Only formally trained operators shall be permitted to determine skin types, determine and document

consumer use of medications, review medical and skin histories of consumers, review warning statements and other applicable documentation (such as minor consent by a parent) for consumer signatures, instruct consumers in the proper use of protective eyewear prior to an initial exposure and determine exposure times.



Chapter Eleven Review

1. The operating procedures covered in this chapter are specific procedures that cover the needs for all tanning facilities. **True or False?**
2. Most, but not all consumers need to complete an initial tanning profile. **True or False?**
3. Minors should always be required to get parental consent in the presence of a formally trained operator. **True or False?**
4. Tanners can allow their children or other relatives inside the tanning room during the session as long as they wear protective eyewear. **True or False?**
5. Emergency contact information should be kept by each facility phone for easy access. **True or False?**

[View Answers...](#)

CHAPTER 12: The Secrets of Successful Inspections

Perhaps you live in an area that has governing rules for the tanning industry. You've been open for a short while, but no one has come by yet. Yet you live in constant fear that at some point, the tanning Gestapo is going to arrive in full force at your salon, and you don't know how to prepare.

This chapter will help put you at ease. By the way, your governing agency is not the tanning Gestapo, and they aren't there just to harass you and take your money. It's better to think of them as paid counselors to reduce the liability of your salon. Instead of wishing they would just leave, take advantage of their being there, and ask questions about your concerns.

The inspector's time is often limited because of all the tanning businesses in the area that need to be inspected. Many inspectors also wear more than one hat. They might also have to inspect nursing homes, pools and restaurants. Call them later if you need to.

We recognize that every facility is not located in an area where tanning regulations

exist. Even if you are not in a regulated area, the benefits of reduced liability and organization will be put you ahead of the game should rules ever developed.

Inspections at Any Level

It's pretty common to have a national tanning law, and then a stricter tanning law at some lower level (state, provincial, territorial or even at some local level). These laws sometimes provide a slightly higher emphasis on one aspect of that law than on other areas.

For example, it could be said that the highest emphasis in U.S. federal law is given to labelling requirements for both tanning equipment and tanning lamps. Brazil's tanning law finds it important to have doctors skin type your customers prior to tanning. European tanning law seems to place highest priority on limiting total overall exposure for a year. At local levels, emphases are often found on sanitation and customer screening. There is also a current trend to place limitations or even complete bans on teenage tanning.

Just because there seems to be a higher emphasis in one area over another doesn't mean that the tanning facilities should ignore other areas of the law. If we were to provide a more complete overview of the U.S. tanning law, we could say that it covers four general areas: Tanning equipment, tanning lamps, tanning timers and protective eyewear.

Is there such a thing as a national level of inspection for tanning? Absolutely. Generally though, more inspections will be conducted at the local level, and those inspections are likely to be stricter.

Responding to Your Inspector

No one really enjoys having any governmental official come into their business to "inspect" their operations, paperwork or anything else for that matter. Some choose to ignore or contend with the governing agency about the issues brought up by the inspector.

If you find yourself in a disagreement with one or more of the inspector's citations, there are legitimate ways to appeal those decisions without picking a fight. Call the office and ask for more information about the inspector's decision from the inspector who cited you. Maybe they can clarify which specific rule in the regulation applies to your situation. Possibly they can show you how that rule does apply to your situation, even though it doesn't appear to be.

Still not satisfied? Take it up a notch and respectfully request to speak with a supervisor for further clarification. If you're still not satisfied, your tanning law may include a procedure for appealing or at least filing a grievance. You may need to get further advice from your business attorney.

There are also illegitimate ways to deal with the inspector. Simply standing in stubborn opposition to the inspector's decisions isn't going to force your inspector

or governing agency to back down. Threatening your inspector or kicking them out of your establishment isn't constructive either.

Administrative and Physical

Understanding what the inspector is doing can provide better insight into why they do what they do. There are two parts to any inspection in the tanning industry: Administrative and Physical. **Administrative** covers paperwork related items and the demonstration that procedures have been followed. An example of proof for following a procedure might be in using special test strips to prove that the sanitizer has been properly diluted.

Physical means everything else. The tanning equipment will be involved, but your facility may be required to meet certain requirements too. Bathrooms are a common target. You may have to be able to demonstrate that your bathroom sink has both hot and cold running water that a customer can drink. The facility temperature may have to be maintained below 100 degrees Fahrenheit or 38 degrees Celsius.

We're going to cover a significant list of things that an inspector could look for on a more stringent level of inspection. That way you are rarely likely to be surprised in the future. Let's start with the administrative side.

Part One: Administrative Requirements

Get a file folder or notebook that can be dedicated to tanning inspections. Even if you are not in an area where inspections take place, collecting your paperwork into a single location will help to keep you more organized. It's a small hassle to put these things together, but once it is done, very little maintenance has to be done to keep it up to date.

Next, label that folder or notebook for easy access later. Then let everyone know where that notebook is. The inspector isn't going to call you ahead of time and ask for permission to stop by and perform an inspection at a time that is convenient for you. Everyone should be able to access that file for the inspector as soon as the inspector stops by. Here are those items that you want to put in that file. We'll also include some other administrative tips besides just having a paperwork file.

1. **Registration/License Certification** — This would include a copy of your application and your application approval letter or certificate. Some governing agencies require that any applicable certificate that they send you be posted in a conspicuous location.

Despite the fact you may be required to post your approval in the facility, you will not be allowed to advertise that you are a government-approved facility. Your governing agency isn't being unnecessarily difficult. They just don't want you profiting off of their good name. There are always a few bad businesses in any industry that are willing to use anyone's good name to enhance their own profits. Your governing agency wants to prevent possible public relations

nightmares.

The inspector is going to be looking for two things related to your registration or license, besides posting the approval, if required. The first is that they want to make sure that you are paying your **annual fees** (some agencies require fees be paid every two years).

The second item is that inspectors want to know that you have represented your salon accurately on your initial application. That is to say, if your application said that you have ten tanning units, then you should have exactly ten tanning units in your facility, not more or less. It's common for those governing agencies to further require that **if you add or delete a tanning device**, you have to **notify the governing agency** immediately or within a short specified time frame.

2. **Lamp and Tanning Device Supplier Verification** — Your tanning equipment supplier may need to be registered with your governing agency. If this is the case, you will be provided with a list of approved vendors upon your registration. You will only be allowed to purchase tanning equipment and lamps from those vendors. You will be free to purchase anything else from any distributor you choose. Hang on to any receipts for lamps and tanning equipment, so that you can have required proof for your inspector.
3. **Manufacturer's Instruction Manual** — This is the book that provides copies of all the labels and maintenance instructions. Sometimes these are called "User's Instructions" or something similar. Your inspector may want to verify that you have the manual, and that the manual itself meets government standards. That inspector could also require that one of these manuals be available for each tanning device, even if you have several of the same tanning devices. One token manual may suffice for all identical devices. It depends on the governing agency's rules.
4. **Copy of Applicable Tanning Regulations** — This is always helpful to have in your inspection file. The inspector may not need to see it, but if for some reason you aren't clear on the finer points of your tanning regulations, the inspector should be able to show you.
5. **Operating Procedures** — Some U.S. States require at a minimum that the topics we covered in your sample set of operating procedures be a part of a required set of operating procedures for your facility. If you are required to develop an operating procedure, ensure that your employees periodically review those procedures. It also wouldn't hurt to have them sign off that they've reviewed them.
6. **Tanning Equipment Sanitation** — Up to this point we've mentioned something about cleaning and something about sanitizing. There are actually four different levels of "clean."

Cleaning is what is done when all of the solids are removed. For example when you remove mascara from eyewear before soaking it in the sanitizer, you have cleaned the eyewear.

Sanitizing kills virtually all pathogens (those are the bad germs).

Disinfecting kills all bad germs and virtually all of the good germs too.

Sterilization kills everything, including multi-cell organisms.

Generally the only thing that is required of tanning salons is sanitation of tanning equipment and other customer contact surfaces, as well as eyewear. Some governing agencies also require that non-customer contact surfaces like lighting fixtures, ceiling fans, walls and floors be dusted and/or cleaned as necessary. The only other requirement that occasionally shows up in tanning regulations is a rule that protective eyewear be disinfected.

Some tanning regulations also require proof that facility operators have been testing the sanitizer with dilution test strips that can be secured from a distributor. Test strips (sometimes called “quaternary strips” or “quat strips”) are used to measure the concentration of the sanitizer solution. They look like litmus paper for testing pH balance. If testing is required, a sanitizer log should be developed to document routine testing.

Since we are dealing with paperwork in this section, you will want to include a copy of the sanitizer mixing instructions in your inspection file. The inspector may look for the instructions, and also determine whether the sanitizer you are using is an agency-approved sanitizer. Here is also where you would place your sanitizer testing log.

7. **Protective Eyewear Sanitation** — Sometimes the sanitizer that a facility has chosen for their protective eyewear is designed for use on eyewear alone. If this is your case, be sure that you include a copy of the mixing instructions for this sanitizer in your inspection file too.

One item to note is that some U.S. states like New Hampshire and Iowa, don’t allow shareable eyewear. That means that all eyewear provided to the customer must be for single use and disposable. The only exception to this would be if the customer chose to buy their own reusable pair of eyewear from the salon. Sometimes rules also require eyewear to be “disinfected.”

8. **Adequacy of Posted Warning Signs** — Radiation warning signs must be posted where required, and the lettering often has font style and minimum size requirements.

Radiation warning signs must be posted where required, and the lettering often has font style and minimum size

Radiation warning signs are the most commonly required sign to be posted. Your governing agency may require additional signs to be posted. For example, the state of Oregon requires two additional signs be posted. One notifies consumers that minors must have parental consent. The other notifies consumers that the facility and tanning equipment are required to be kept in a clean

requirements.

and sanitary manner at all times.

9. **Timer Test Log** — By the way, what are you using to test your timers? The specific timing device chosen by the facility to test timers used to be an issue of concern for some regulating agencies, but generally your watch isn't so inaccurate that it causes you problems. Unless your governing agency instructs you otherwise, feel free to use your watch to test the timers on your tanning devices.

Here's a common requirement for salons: Ensure that the maximum time that can be set on the remote override control timer doesn't exceed the maximum time that is designed for that tanning device. So if you have a 20 minute tanning device (as determined by the maximum allowable time on the exposure schedule for the device), your outside control timer for the tanning device needs to be a 20 minute timer. Put another way, you can't put a 30 minute timer on a 20 minute tanning unit.

We mentioned "remote override control." This means that the tanning equipment operator needs to be able to activate or deactivate the power to the tanning unit from a remote location. The customer should not have the ultimate control over that tanning session. Most salons have a system in place for delaying the session long enough for the customer to prepare for their exposure. Then the customer, when ready, can activate the tanning device and their session time begins at that moment.

Now for the heart of the matter. If you are required to test your timers, you will also be required to keep a log of those tests. This can easily be done by modeling your log after the following example:

Figure 12.1: **Example Timer Test Log**

DATE	UNIT NUMBER	MAXIMUM UNIT TIME	ACTUAL TEST TIME	EMERGENCY CUT OFF

Date: You will need to log the date of the timer tests so that you can demonstrate that you are meeting their minimum requirement for testing those timers. Usually this requirement is once a year.

Unit Number: All tanning devices need to be tested. This will help keep track of which devices are being tested.

Maximum Unit Time: The maximum unit time is the maximum time allowed for a tanning session as listed by the device manufacturer.

Actual Test Time: Your governing agency will usually require the test time to be done at the maximum time allowed for the unit. This avoids confusion on accuracy of the timers. So if you have a 20 minute bed, conduct a 20 minute test. Do this while someone is tanning. There's no sense in wasting energy and lamp life for an empty test.

Emergency Cut Off: It's rare for there to be a requirement for emergency cut-off switches to be tested, but when there is, just turn the device off after turning it on. Did the switch turn off the device? If so, put a check mark in the corresponding box for the unit that you tested.

Now let's get back to common rules regarding timers. Timers have to be accurate. That's the reason for conducting these tests. The near universal requirement is that timers have at least 90 percent accuracy or better. Put another way, you are allowed a 10 percent margin of error. So if you conduct a 20 minute timer test, 10 percent of 20 minutes is 2 minutes. It's also a near universal principle to allow 10 percent plus or minus margin of error. That is to say that the 2 minutes allowed for error on a 20 minute unit could allow you to go up to 22 minutes or down to just 18 minutes. So if you tested your timer and it failed after 17 minutes and 43 seconds, your timer would have to be replaced because it was inaccurate by more than 10 percent.

Why is there such a concern for accuracy? It used to be that everyone used spring wound, mechanical timers to activate their tanning devices. These timers did become inaccurate over time; enough so, that governing agencies put their foot down and demanded some marginal accuracy. Today, most tanning salons have digital timers. Digital timers are accurate to within 1/10th of a second, so they are either precisely accurate, or they fail. Ohio was the first state to recognize the difference in the two types of timers, and wrote into their law that digital timers did not have to be tested.

10. **Protective Eyewear Certification** — The certification we are referring to is that little piece of paper that you find inside each plastic bag. This information sheet certifies that the eyewear meets U.S. and/or Canadian standards. It also provides instructions for use. Sometimes this certification information is found on the backside of a cardboard box, inside a plastic box or the backside of the sheet for peel off sticker types of eyewear. You may also be required to have a pair of protective eyewear in the proximity of each tanning device. Texas is one such state. We recommend taking the certification information for each pair and attaching it to a piece of paper that you would label "Eyewear Certification Information." Most inspectors are familiar with the brands of eyewear available on the market, but occasionally a new brand will become available that meets the standards. Sometimes the inspector is new and will need you to demonstrate that the eyewear you are using in your shop is compliant. This is the easiest way to do this.
11. **Customer Profile and Visit Record** — Many tanning salons use computer software to log the customer's information and visit record. Other salons use client cards instead. In either case, all applicable spaces need to be filled in. If

you use computer software, we recommend that you back up your data files regularly, at least once a week. Nightmare stories exist where salons lost years of customer information by not backing up their data.

Your inspector may ask to view several records. If they find any discrepancies, they may ask to see more records. What are they looking for? They want to make sure that all required information is filled in. They will cross reference skin type information with the

...back up your data files regularly, at least once a week.

exposure schedule and recent visit history to ensure you are assigning proper session times. They may also verify that you are ensuring proper spacing of visits. In other words, if someone is supposed to wait 24 or 48 hours between visits the customer record should demonstrate that you waited that amount of time at a minimum, prior to allowing another tanning session. Some European countries and one state in the United States (Oregon) have adopted International Radiation Protection Association standards that generally allow tanning only twice a week and for a maximum of 30-50 sessions per year.

On a side note, please do not share visit records. It's illegal in some places, but there are natural complications. It's natural to want to allow to friends to share the visits from a tanning package, but what if one gets injured from overexposure? What if the state comes to inspect and sees that you allowed someone to tan twice in less than 24 hours? What if one customer that is using the visit record is a skin type five and the other is a skin type two? Could you imagine the natural confusion when the inspector looks at the record on a random inspection, let alone if he or she is targeting that card because of an injury? It could be a legal nightmare.

12. **Customer Warning Statement** — Some states require that customers both sign a copy and that customers be provided with a copy of the warning. Have a blank copy available for the inspector's reference.
13. **List of Photosensitizing Agents** — We spent a lot of time discussing the principles of photosensitizing agents in Chapter 8. The important point here in this section is to ensure you have a list of medications available for use at your facility. While we suggested a practical way to deal with photosensitizing agents in a streamlined fashion, your applicable regulations may require that you have a list available. Have a copy available at the front desk for customer use and place another copy in your inspection file.
14. **Injury Report** — Your governing agency is primarily interested in tanning device related injuries, however they may also be interested in other kinds of injuries, such as canopy tops falling on your customers.

Sometimes nothing is wrong with the tanning device, but the customer is still injured while using the tanning device. The State of Illinois made us aware that they receive a number of injury reports regarding bee stings while customers are tanning. It's not hard to understand that in the Spring, many facilities leave their doors open to let fresh cool air in the building. Those facilities with flowers

near their front door will draw bees naturally. Once bees are inside, the pleasant scent of perfume and/or tanning lotion on the skin of customers will draw those bees right into the tanning room.

If there are any incidents of injury, it's best to keep a copy of that injury report available for inspection in your inspection file. Some governing agencies require this until they authorize the disposal of that report. If your agency has their own form they want you to fill out, keep a blank copy on hand in case it's needed in the future.

15. **Copy of Latest Inspection Report** — It's not all that common for a governing agency to require inspection results to be posted for public use, but it is helpful to keep copies of past inspection results. For convenience, we recommend keeping them in your inspection file. You certainly don't want to get cited for the same violations over and over again as the penalties could stiffen for repeat offences.
16. **Operator Training Records** — Many governing agencies require some kind of basic training. We normally call this site-specific training because it includes orienting the operator to the facility's tanning equipment, sanitizer choices and specific mixing and testing instructions, etc. These are things that only the facility can cover. Formal training is also sometimes required. Formal training involves an independent agency like Tanning Dynamics to cover the areas of instruction that are common to most facilities with tanning equipment. Sometimes the course of instruction itself must be closely scrutinized by the agency for agency approval.

You may be required to maintain copies of training records...

You may be required to maintain copies of training records as the facility may have to be able to document that specific topics have been covered. Our certificate of completion is one way to do that. Some like to post these certificates on the wall so that customers can see that operators aren't simply warm bodies

placed behind the counter: they complete intensive training as a part of an employment requirement.

17. **Operator Age Verification** — Once in awhile a governing agency will add a minimum age requirement to their tanning rules. For example, New Hampshire and North Carolina require that operators be 18 years of age prior to working behind the counter. Exceptions might be allowed for an employee who is a minor. Minors might be allowed to sanitize tanning equipment between customer uses, sell tanning lotion or even receive Tanning Dynamics training prior to their 18th birthday. They just wouldn't be allowed to set equipment timers, fill out or review customer profile and visit records, or anything else related to exposing the customer to UV light.
18. **Advertising Standards** — Governing agencies are often concerned about certain words or advertising concepts that they might consider to be misleading. Common concepts to avoid include saying that tanning is safe (it

implies that tanning is a risk free activity), safer than the sun, and that “unlimited” tanning is available (this implies injury won’t be received through reckless amounts of exposure). Depending on where you are located, you also shouldn’t claim that tanning has any health or medical benefits. In the U.S. this is addressed at the federal level, and often at the State level. The FDA normally deals with tanning, but advertising claims fall under the FTC (Federal Trade Commission). The FTC would say that advertising claims about health or medical benefits are “unsubstantiated claims.” What qualifies as a substantiated claim? Those claims that can be supported by an unspecified amount of documentation from qualified sources, such as peer-reviewed medical journals. This can leave a lot of room for controversy.

19. **Architectural and/or Sewer Plans of the Facility** — You shouldn’t need an architect to have these drawn up. A simple drawing made by hand will suffice. Your governing agency is looking for a couple of things here. First they want to make sure that your facility is in compliance with local building and waste disposal codes. The second is that they want to make sure that your drawing for designated tanning rooms is consistent with your initial application. If you ever add or delete a tanning device, you will have to notify your governing agency within a short amount of time that you have done so.
20. **List of Emergency Contacts** — Illinois, Iowa and Oregon all require that a list of emergency contacts be kept readily available for use. Even if you don’t live in one of these states, we recommend that you develop a list of emergency contacts anyway. Hopefully no one will ever need to use it, but if an emergency does arise, your facility will have a plan for efficiently managing the situation.

Which emergency numbers should be kept? At the very least the local hospital, fire department, police department, poison control center and the owner’s phone numbers should all be included. Contacts for managers and repairmen are also helpful.

It’s unlikely that anything would happen at your shop, but there have been equipment fires from dust build up. There have been those tanners who had seizures in the tanning equipment (unrelated to the exposure), plus a number of other incidents including sudden power outages and computer crashes where the operator can’t log in customer visits. When this list is developed, keep a copy by each phone at the facility.

Part Two: Physical Requirements

Now that your administrative side is prepared for the inspection, let’s consider the physical side to avoid inspection surprises.

1. **Tanning Equipment Manufactured to Standard** — It’s a near universal requirement for tanning equipment to be manufactured

Most governing agencies also specify a maximum temperature of 100 degrees Fahrenheit or 38

according to national standards and sometimes local standards too. The equipment will be inspected to ensure that it has been manufactured according to legal requirements.

**degrees
Celsius.**

- 2. Adequacy of Stand Up Booths** — Sometimes stand up units have additional requirements. In these cases floors must be non-slip. Straps or handle bars must be included over head or handle bars between light panels so that the customer can maintain their balance. Some kind of marking will have to be on the floor to let the customer know that they should stand in the middle of the floor. The doors will have to open outwardly and be non-latching in design, and the booth will have to be made rigidly enough to withstand the impact of a falling person.

Also, let's be clear on something. This requirement is referring only to stand up tanning devices and not to tanning rooms that house tanning devices. Sometimes salon owners get this confused and start mounting handrails in tanning rooms. Tanning room doors are changed so that they open outwardly and are non-latching in design. This isn't necessary, and certainly is not required in order to meet your tanning law.

- 3. Adequacy of Tanning Equipment Labels** — While the inspector may check to see if the label meets governmental requirements for content, most of the time they are checking for legibility. If your facility does a good job of sanitizing equipment between visits, the sanitizer will wear down the lettering, and make the label illegible. When it does, you will be required to replace it. You could order replacement copies from the manufacturer, but those owner's manuals for tanning equipment should have exact copies of those warnings. You may be able to make copies right out of the manual and laminate them. Then secure those fresh copies to the tanning device.
- 4. Lamps and Lamp Filters Replacement Standards** — Your inspector may require you to provide proof that the replacement lamps are compatible with the original lamps that were designed for use with that tanning device. Lamp compatibility statements are frequently folded and hidden between the protective cardboard cushions for the lamps. If you still don't find the compatibility statement there, check the internet. Many of them are posted at the manufacturer's website. If you still don't find what you are looking for, your inspector may tell you stop using the device until the lamps are replaced with acceptable equivalents. Remember too that you may have to document what you have done with those old spent lamps.

What about those facial lamps? Sometimes the protective facial plate (usually blue, purple or frosted in color) will fail by sliding to one side enough to let white light shine through, or by cracking, which allows the same white light result. If you have an older model of tanning equipment you will have to disable that lamp until either the frame is fixed to hold the filter plate in its place, or you will have to get a replacement filter. Manufacturers of most modern equipment have included safety switches so that the individual lamp associated with the failing filter plate will be shut off to protect the customer.

What's in that white light? Undesirable ranges of UVB and even some UVC. So it's really important that the lamp be disabled. If you notice a customer coming out of the tanning room with a red streak on their face, go back and check the facial filter plates for any white light. Be sure to wear your protective eyewear prior to checking.

5. **Timer Controls Located Remotely** — We're merely listing this point here to point out that the inspector may want to make sure that the override timer control is located somewhere away from the tanning room.
6. **Legibility of Timer Indications** — Over time the hash marks and number indications from mechanical timers wear out from frequent contact when the timer is set. A little trick is to ensure all marks and numbers are clearly indicated, then take some clear packing tape and put it over the face plate. Remove the knob off of the spindle and place a strip over the center, by popping a hole in the tape where the spindle is. Doing this will prevent the markings from wearing off.
7. **Adequacy of Emergency Shut Off Switch** — This includes being able to show that customers are instructed as to the location. We mentioned the rare but occasional requirement to test these switches periodically. Your inspector may choose to check the functionality of one or more of these during their inspection.
8. **Adequacy of Acrylic Barriers** — or whatever other barrier is in place. Some older devices were manufactured with wire mesh in front of the lamps. Others had plastic sleeves that fit over each lamp. It needs to be the barrier that was designed for that specific device, and it also needs to be in decent useable condition. Some agencies won't allow tanning devices to be used that don't use acrylic as the barrier. The inspector will want to know there are no cracks in the acrylic and of course, that the equipment has been sanitized.
9. **Adequacy of Pistons** — We mentioned in chapter 10 how the inspector will check to ensure pistons are functioning properly.
10. **Adequacy of Vinyl Pillows** — Vinyl pillows will be checked for both sanitation and for cracks or splits in the vinyl cover.
11. **Temperature Adequacy** — This rule almost always refers to the ambient temperature of the tanning room. Most governing agencies also specify a maximum temperature of 100 degrees Fahrenheit or 38 degrees Celsius. The state of Ohio takes it a step further. They require that a thermometer be posted five feet above the floor next to a sign that warns customers not to tan if the temperature is 100 degrees or higher.
12. **Adequate Storage and Disposal of Customer Towels** — Sometimes you are required to have a clean, dust proof area to store your customer towels and a receptacle for dirty or used towels. We mentioned the same standard for your salon in Chapter 9 as a recommendation, even if it is not required.
13. **Washroom Adequacy** — Some governing agencies have added facility related issues to their regulations that can often be found in building codes. They are just making sure that the customer is protected as much as reasonably possible from germs and possible disease transmission. They also want to ensure that a customer's privacy is protected. So for example,

Louisiana requires that bathroom doors be self-closing. It's common to see requirements for hot and cold running water that a customer can drink. Soap may be required to be available in a liquid form, as opposed to bar soap.

Condensed Checklist

We've covered a whole lot of things that should be considered when preparing for an inspection. Since this information is spread over numerous pages, we thought it would be helpful to provide a condensed checklist that you can use.

Administrative Checklist

1. _____ Registration/License Certification
2. _____ Lamp and Tanning Device Supplier Verification
3. _____ Manufacturer's Instruction Manual
4. _____ Copy Of Applicable Tanning Regulations
5. _____ Operating Procedures
6. _____ Tanning Equipment Sanitation
7. _____ Protective Eyewear Sanitation
8. _____ Adequacy of Posted Warning Signs
9. _____ Timer Test Log
10. _____ Protective Eyewear Certification
11. _____ Customer Profile and Visit Record
12. _____ Customer Warning Statement
13. _____ List of Photosensitizing Agents
14. _____ Injury Report
15. _____ Copy of Latest Inspection Report
16. _____ Operator Training Records
17. _____ Operator Age Verification
18. _____ Advertising Standards
19. _____ Architectural and/or Sewer Plans of the Facility
20. _____ List of Emergency Contacts

Physical Checklist

1. _____ Tanning Equipment Manufactured to Standard
2. _____ Adequacy of Stand Up Booths
3. _____ Adequacy of Tanning Equipment Labels
4. _____ Lamps and Lamp Filters Replacement Standards
5. _____ Timer Controls Located Remotely
6. _____ Legibility of Timer Indications
7. _____ Adequacy of Emergency Shut Off Switch
8. _____ Adequacy of Acrylic Barriers
9. _____ Adequacy of Pistons
10. _____ Adequacy of Vinyl Pillows
11. _____ Temperature Adequacy
12. _____ Adequate Storage and Disposal of Customer Towels
13. _____ Washroom Adequacy



MODULE FOUR REVIEW

1. The primary purpose of tanning equipment fans is to cool the lamps. **True or False?**
2. High Pressure lamps are the kind of lamps used in facial lamp sockets. **True or False?**
3. Mixing sanitizers too strongly can cause some customers to break out in rashes. **True or False?**
4. Most, but not all consumers need to complete an initial tanning profile. **True or False?**
5. Tanners can allow their children or other relatives inside the tanning room during the session as long as they wear protective eyewear. **True or False?**
6. Emergency contact information should be kept by each facility phone for easy access. **True or False?**
7. There are two parts to any inspection: administrative and physical. **True or False?**
8. One item that should be part of your paperwork file folder is the manufacturer's instruction manual for each type of tanning device in your facility. **True or False?**
9. Governmental agencies typically require tanning device timers to be tested with a calibrated stop watch. **True or False?**
10. Many governmental agencies require tanning room temperatures to be no higher than 138 degrees. **True or False?**

[View Answers...](#)

Appendices

APPENDIX A: Photosensitizing Medications and Foods

Because there are always medications that won't be listed here, all medications should be treated as photosensitizing until skin response is established.

Acetazolamide
Acetophenazine
Acetohexamide (Dymelor)
Acetohexamine
Acridine preparations (slight)
Actifed
Agave Lechuguilla (amaryllis)
Agrimony
Aldactazide
Aldoclor
Aldoril
9-Aminoacridine
Aminobenzoic Acid
Amiodarone
Amitriptyline (Elavil, etc.)
Amoxapine
Anesthetics (Procaine group)
Angelica
Anthracene
Anthraquinone
Antidepressants
Antihistamines
Antimalarials
Apresazide
Apresoline-Esidrix
Arsenicals
Astemizole
Auranofin
Aureomycin
Azatadine
Azo Gantanol
Azo Gantrisin
Bactrim

Barbiturates
Bavachi (corylifolia)
Belladonna & Opium Rectal Suppositories
Bendroflumethiazide
Benzedryl
Benzene
Benzopyrine
Benzthiazide
Betaxolol
Bithionol (Actamer, Lorotheidol)
Blankophores (sulfa derivatives)
Botulinum Toxin Type A
Bromchlorsalicylanilid
Bromodiphenhydramine
Brompheniramine
Bulosemide (Jadit)
Buspirone
4-Butyl-4-Chlorosalicylanilide
Cadmium sulfide
Calcifediol
Calcitriol
Calcium Cyclamate
Capozide
Captopril
Carbamazepine (Tegretol)
Carbamazepine and Trimethadione
Carbinoxamine d-form (Twiston R-A)
Carbutamide (Nadisan)
Chloroquine
Chlordiazepoxide
Chlorophyll
Chlorothiazide (Diuril)
Chlorpheniramine
Chlorpromazine
Chlorpropamide (Diabinese)
Chlorprothixene
Chlortetracycline(Aureomycin)
Chlorthalidone
Chlorthalidone + Atenolol
Chlorthalidone + Reserpine
Cromolyn
Ciprofloxacin
Clemastine
Clofazime
Clomiphene
Clomipramine
Coal Tars

Coal Tar derivatives
Cold Salts
Combipres
Compazine
Corzide
Cromolyn
Cyclamates
Cyclobenzaprine
Cyclopentolate
Cyproheptadine
Dacarbazine
Danazol
Dartal
Deconamine
Demeclocycline (Declomycin, demethylchlortetracycline)
Demi-Regroton
Desipramine (Norpramin, Pertofrane)
Dexchlorpheniramine
Diabinese
Dibenzopyran derivatives
Diclofenac
Dicyanine-A
Diethylstilbestrol
Diflunisal
Digaloyl Trioleate (sunscreen)
Digitoxin
Dilantin
Diltiazem
Diphenhydramine
Diphenylpyraline
Diupres
Diuretics
Diuril
Diutensen-R
Doxazosin
Doxepin
Doxycycline
Doxycycline Hyclate
Duragesic
Dyazide
Enalapril
Encainide
Enduronyl
Eosin
Erythrocine
Erythrosin
Esimil

Estazolam
Estrogens
Estrone
Ethambutol
Ethionamide
Ethosuximide
Etodolac
Etrafon
Etretinate
Fansidar
Fentichlor
Flecainide Acetate
Floxuridine
Flucytosine
Fluorescein
Fluorouracil
 ◦ 5-Fluorouracil (5-Fu)
Fluoxetine
Fluphenazine
Fluphenazine
Flurbiprofen
Flutamide
Fosinopril
Furazolidone
Furocoumarins
Furosemide
Gentamicin
Glipizide
Glyburide
Glyceryl P-Aminobenzoate (sunscreen)
Gold Salts (Compounds)
Gold Sodium Thiomalate
Griseofulvin (Fulvicin)
Griseofulvin Ultramicrosize
Halogenated carbanilides
Halogenated phenols
Halogenated salicylanilides
Haloperidol
Hematoporphyrin
Hexachlorophene (rare)
Hydralazine
Hydrochlorothiazide (Esidril, HydroDiuril)
Hydroflumethiazide
Hydrpres
Hydroxychloroquine
Hydroxypropyl Cellulose
Hyoscyamine

Ibuprofen
Idoxuridine
Imipramine
Imipramine HCL (Trofranil)
Indapamide
Inderide
Indomethacin
Interferon ALFA-2B
Iohexol
Isocarboxazid
Isothipencyl (Theruhistin)
Isothipendly (Theruhistin)
Isotretinoin
Ketoconazole
Ketoprofen
Labetalol
Lantinin
Levamisole
Limbitrol
Lopressor HCT
Lovastatin
Loxapine
Maprotiline
Maxzide
Mecllothiazide (Enduron)
Mepazine (Pacatal)
Mepergan
Mephentyoin
9-Mercaptopurine
Mesoridazine
Mestranol
Methacycline
Methazolamide
Methdilazine
Methotrexate
Methsuximide
Methyclothiazide
Methylene blue
Methylene orange
Methylene red
Methylene violet
Metolazone
Minizide
Minocycline
Minocycline and
Oil of: Bergamot, Lime, Cedar, Lavendar, Citron, Sandalwood
Oxytetracycline

Minoxidol
Moduretic
Monochlorphenamide
Monoglycerol para-aminobenzoate
Muromonab-CD3
Musk Ambrette
Nabilone
Nadolol + Bendroflumethiazide
Nadison
Nalidixic Acid (NegGram)
Naphthalene
Naproxen (Naprosyn, Anaprox)
Neuroleptics
Neutral red
Nifedipine
Norepinephrine Bitrtrate
Norethynodrel and diethylstilbestrol
Norfloxacin
Normozide
Nortriptyline (Aventryl)
Notriptyline and Protriptyline
Ofloxacin
Olsalazine
Orange Red
Oreticyl
Orinase (Orabetic)
Ornade
Oxytetracycline (Terramycin)
Pacatal
Paradimethylaminoazobenzene
Paramethadione
Paraphenylenediamine
Pediazole
Penicillin derivatives (Griseofulvin)
Pergolide Mesylate
Perloline
Perphenazine (Trilaton)
Phenanthrene Phenazine dyes
Phenelzine
Phenolic compounds
Phenothiazines (dyes)
Phenoxazines
Phenylbutazone (Butazolidin)
Phenylpropanolamine + Pheniramine + Ppyrilamine (Triaminic TR)
Phenytoin (Dilantin)
Piroxicam
Pitch

Polythiazide
Porphyrins
Prazosin + Polythiazide (Minizide)
Prinzide
Procaine
Procarbazine
Prochlorperazine
Profriptyline (Vivactil)
Promazine Hydrochloride (Sparine)
Promethazine
Promethazine Hydrochloride (Phenergan)
Protriptyline
Psoralens (Ox-, Tri-, Meth-, Ultra-, etc.)

- Methoxsalen (Meloxine,
- Oxsoralen)
- 5-Methoxypsoralen
- 8-Methoxypsoralen

Pseudafed
Pyrazinamide
Pyridine
Pyrazinamide
Pyridine
Quinethazone (Hydromox)
Quinine
Quinine Gluconate
Quinine Sulfate
Quinine Polygalacturonate
Quinine
Ramipril
Rauwolfia + Serpentina + Bendroflumethiazide (Rauzide)
Reserpine + Chlorothiazide
Reserpine + Hydrochlorothiazide
Retin-A
Rose bengal
Rue
Ru-Tuss II
Salicylanilides
Salicylates
Salutensin/Salutensin-Demi
Selegiline
Ser-Ap-Es
Serpasil-Esidrix
Silver Salts
Spansule
Sparine
Stibamidine Isethionate
Sulfacetamide
Sulfacytine

Sulfadiazine
Sulfadimethoxine
Sulfaguanidine
Sulfamerazine
Sulfamethazine
Sulfamethoxazole
Sulfanilamide
Sulfapyridine
Sulfasalazine
Sulfathiazole
Sulfinpyrazone
Sulfisomidine (Elkosin)
Sulfisoxazole
Sulfonamide
Sulfonamides
Sulfone
Sulfonylureas (antidiabetics)
Sulindac
Tamaril
Tenoretic
Terfenadine
Terramycin
Tetrachlorsalicylanilide (TCSA)
Tetracyclines
Therahistin
Thiazides (Diuril, Hydrodiuril, etc.)
Thiophene
Thiopropazate Dihydrochloride (Dartal)
Thioridazine
Thiosulfil-A
Thiothixene
Thorazine
Timolide
Tolazamide
Tolazamide and Tolbutamide
Tolbutamide (Orinase)
Toluene
Toluidine blue
Trandate HCT
Tranylcypromine
Tretinoin
Triaminic TR
Triamterene
Tribromosalicylanilide (TBS)
Trichlormethiazide (Metahydrin)
Tridione
Triethylene Melamine (TEM)

Trifluoperazine
Trifluoperazine and Trifluopromazine
Triflupromazine Hydrochloride (Vesperin)
Trilafon
Trimeprazine
Trimeprazine Tartrate (Temaril)
Trimethadione (Tridione)
Trimethoprim
Trimethylpsoralen
Tripyrathiazine

- Sulfamethoxazole

Trimipramine
Trinalin Repetabs
Tripelennamine
Triprolidine
Triprolidine + Chlorpheniramine
Triprolidine + Pseudoephedrine
Tropicamide
Trypaflavin
Trypan blue
Ultraoxpsoralen
Vaseretic
Vesprin
Visblastine
Water Ash
Wood tars & Petroleum products
Vidarabine
Vinblastine
Xylene
Yarrow
Zestoretic
Zidovudine

Categories of Medications

Acne Preparations
Analgesics
Antianxiety
Antiarthritics
Antiarrhythmics
Antibiotics
Anticholesterol
Anticonvulsants (Antiseizure)
Antidepressants
Antidiabetic
Antifungals
Antihistamines

Anti-inflammatory
Antimalarials
Antimetabolites
Antimicrobials
Antinausea
Antiparasitics
Antipsychotics
Artificial Sweeteners
Beta & Alpha Adrenergic Blockers
Blood Pressure Medications
Caine-based Anesthetics
Cardiovasculars
Coal Tar products
Contraceptives, any type
Cosmetics + Dyes
Deodorants
Diuretics
Essential Oils
Heart Medications
Hair Growth Stimulators
Hypoglycemic Medications
Insomnia Medications
Melanogenics (furocoumarins)
Motion Sickness Medications
Muscle Cramp Medications
Narcotics
NSAIDs
Pain Medications
Patch Type Medications
Perfumes
Phenothiazines
Psoralens
Schizophrenia Medications
Sunscreens (some)
Tattoos
Tranquilizers

Foods

Carrots
Celery
Citrus fruits
Clover
Coumarin (obtained from the Tonka Bean)
Dill
Eggs
Figs
Garlic

Ginkgo Biloba
Grass (wheat, barley, etc.)
Hawthorn Berry
Lady's Thumb (tea)
Lime oil
Mustards
Onions
Parsley
Parsnips (vegetables)
Saint John's Wort
Smartweed (tea)
Vanilla Oil



APPENDIX B: FDA Regulations

Sec. 1040.20 Sunlamp products and ultraviolet lamps intended for use in sunlamp products.

(a) *Applicability.* (1) The provisions of this section, as amended, are applicable as specified herein to the following products manufactured on or after September 8, 1986.

(i) Any sunlamp product.

(ii) Any ultraviolet lamp intended for use in any sunlamp product.

(2) Sunlamp products and ultraviolet lamps manufactured on or after May 7, 1980, but before September 8, 1986, are subject to the provisions of this section as published in the Federal Register of November 9, 1979 (44 FR 65357).

(b) *Definitions.* As used in this section the following definitions apply:

(1) *Exposure position* means any position, distance, orientation, or location relative to the radiating surfaces of the sunlamp product at which the user is intended to be exposed to ultraviolet radiation from the product, as recommended by the manufacturer.

(2) *Intended* means the same as "intended uses" in 801.4.

(3) *Irradiance* means the radiant power incident on a surface at a specified location and orientation relative to the radiating surface divided by the area of the surface, as the area becomes vanishingly small, expressed in units of watts per square centimeter (W/cm^2).

- (4) *Maximum exposure time* means the greatest continuous exposure time interval recommended by the manufacturer of the product.
- (5) *Maximum timer interval* means the greatest time interval setting on the timer of a product.
- (6) *Protective eyewear* means any device designed to be worn by users of a product to reduce exposure of the eyes to radiation emitted by the product.
- (7) *Spectral irradiance* means the irradiance resulting from radiation within a wavelength range divided by the wavelength range as the range becomes vanishingly small, expressed in units of watts per square centimeter per nanometer ($W/(cm^2/nm)$).
- (8) *Spectral transmittance* means the spectral irradiance transmitted through protective eyewear divided by the spectral irradiance incident on the protective eyewear.
- (9) *Sunlamp product* means any electronic product designed to incorporate one or more ultraviolet lamps and intended for irradiation of any part of the living human body, by ultraviolet radiation with wavelengths in air between 200 and 400 nanometers, to induce skin tanning.
- (10) *Timer* means any device incorporated into a product that terminates radiation emission after a preset time interval.
- (11) *Ultraviolet lamp* means any lamp that produces ultraviolet radiation in the wavelength interval of 200 to 400 nanometers in air and that is intended for use in any sunlamp product.
- (c) *Performance requirements* (1) *Irradiance ratio limits*. For each sunlamp product and ultraviolet lamp, the ratio of the irradiance within the wavelength range of greater than 200 nanometers through 260 nanometers to the irradiance within the wavelength range of greater than 260 nanometers through 320 nanometers may not exceed 0.003 at any distance and direction from the product or lamp.
- (2) *Timer system*. (i) Each sunlamp product shall incorporate a timer system with multiple timer settings adequate for the recommended exposure time intervals for different exposure positions and expected results of the products as specified in the label required by paragraph (d) of this section.
- (ii) The maximum timer interval(s) may not exceed the manufacturer's recommended maximum exposure time(s) that is indicated on the label required by paragraph (d)(1) (iv) of this section.
- (iii) No timer interval may have an error greater than 10 percent of the maximum timer interval of the product.
- (iv) The timer may not automatically reset and cause radiation emission to resume for a period greater than the unused portion of the timer cycle, when emission from the sunlamp product has been terminated.

(v) The timer requirements do not preclude a product from allowing a user to reset the timer before the end of the preset time interval.

(3) *Control for termination of radiation emission.* Each sunlamp product shall incorporate a control on the product to enable the person being exposed to terminate manually radiation emission from the product at any time without disconnecting the electrical plug or removing the ultraviolet lamp.

(4) *Protective eyewear.* (i) Each sunlamp product shall be accompanied by the number of sets of protective eyewear that is equal to the maximum number of persons that the instructions provided under paragraph (e)(1)(ii) of this section recommend to be exposed simultaneously to radiation from such product.

(ii) The spectral transmittance to the eye of the protective eyewear required by paragraph (c)(4)(i) of this section shall not exceed a value of 0.001 over the wavelength range of greater than 200 nanometers 320 nanometers and a value of 0.01 over the wavelength range of greater than 320 nanometers through 400 nanometers, and shall be sufficient over the wavelength greater than 400 nanometers to enable the user to see clearly enough to reset the timer.

(5) *Compatibility of lamps.* An ultraviolet lamp may not be capable of insertion and operation in either the “single-contact medium screw” or the “double-contact medium screw” lamp-holders described in American National Standard C81.10-1976, Specifications for Electric Lamp Bases and Holders—Screw-Shell Types, which is incorporated by reference. Copies are available from the American National Standards Institute, 1430 Broadway, New York, NY 10018, or available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html

(d) *Label requirements.* In addition to the labeling requirements in part 801 and the certification and identification requirements of 1010.2 and 1010.3, each sunlamp product and ultraviolet lamp shall be subject to the labeling requirements prescribed in this paragraph and paragraph (e) of this section.

(1) *Labels for sunlamp products.* Each sunlamp product shall have a label(s) which contains:

(i) A warning statement with the words “DANGER—Ultraviolet radiation. Follow instructions. Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of the skin and skin cancer. WEAR PROTECTIVE EYEWEAR; FAILURE TO MAY RESULT IN SEVERE BURNS OR LONG-TERM INJURY TO THE EYES. Medications or cosmetics may increase your sensitivity to the ultraviolet radiation. Consult physician before using sunlamp if you are using medications or have a history of skin problems or believe yourself especially sensitive to sunlight. If you do not tan in the sun, you are unlikely to tan from the use of this product.”

(ii) Recommended exposure position(s). Any exposure position may be expressed

either in terms of a distance specified both in meters and in feet (or in inches) or through the use of markings or other means to indicate clearly the recommended exposure position.

(iii) Directions for achieving the recommended exposure position(s) and a warning that the use of other positions may result in overexposure.

(iv) A recommended exposure schedule including duration and spacing of sequential exposures and maximum exposure time(s) in minutes.

(v) A statement of the time it may take before the expected results appear.

(vi) Designation of the ultraviolet lamp type to be used in the product.

(2) *Labels for ultraviolet lamps.* Each ultraviolet lamp shall have a label which contains:

(i) The words “Sunlamp—DANGER—Ultraviolet radiation. Follow instructions.”

(ii) The model identification.

(iii) The words “Use ONLY in fixture equipped with a timer.”

(3) *Label specifications.* (i) Any label prescribed in this paragraph for sunlamp products shall be permanently affixed or inscribed on an exterior surface of the product when fully assembled for use so as to be legible and readily accessible to view by the person being exposed immediately before the use of the product.

(ii) Any label prescribed in this paragraph for ultraviolet lamps shall be permanently affixed or inscribed on the product so as to be legible and readily accessible to view.

(iii) If the size, configuration, design, or function of the sunlamp product or ultraviolet lamp would preclude compliance with the requirements for any required label or would render the required wording of such label inappropriate or ineffective, or would render the required label unnecessary, the Director, Office of Compliance (HFZ-300), Center for Devices and Radiological Health, on the Center's own initiative or upon written application by the manufacturer, may approve alternate means of providing such label(s), alternate wording for such label(s), or deletion, as applicable.

(iv) In lieu of permanently affixing or inscribing tags or labels on the ultraviolet lamp as required by 1010.2(b) and 1010.3(a), the manufacturer of the ultraviolet lamp may permanently affix or inscribe such required tags or labels on the lamp packaging uniquely associated with the lamp, if the name of the manufacturer and month and year of manufacture are permanently affixed or inscribed on the exterior surface of the ultraviolet lamp so as to be legible and readily accessible to view. The name of the manufacturer and month and year of manufacture affixed or inscribed on the exterior surface of the lamp may be expressed in code or symbols, if the manufacturer has previously supplied the Director, Office of Compliance (HFZ-300), Center for Devices and Radiological Health, with the key to such code or symbols and the location of the coded information or symbols on the ultraviolet lamp. The label or tag affixed or inscribed on the lamp packaging may provide either the month

and year of manufacture without abbreviation, or information to allow the date to be readily decoded.

(v) A label may contain statements or illustrations in addition to those required by this paragraph if the additional statements are not false or misleading in any particular; e.g., if they do not diminish the impact of the required statements; and are not prohibited by this chapter.

(e) *Instructions to be provided to users.* Each manufacturer of a sunlamp product and ultraviolet lamp shall provide or cause to be provided to purchasers and, upon request, to others at a cost not to exceed the cost of publication and distribution, adequate instructions for use to avoid or to minimize potential injury to the user, including the following technical and safety information as applicable:

(1) *Sunlamp products.* The users' instructions for a sunlamp product shall contain:

(i) A reproduction of the label(s) required in paragraph (d)(1) of this section prominently displayed at the beginning of the instructions.

(ii) A statement of the maximum number of people who may be exposed to the product at the same time and a warning that only that number of protective eyewear has been provided.

(iii) Instructions for the proper operation of the product including the function, use, and setting of the timer and other controls, and the use of protective eyewear.

(iv) Instructions for determining the correct exposure time and schedule for persons according to skin type.

(v) Instructions for obtaining repairs and recommended replacement components and accessories which are compatible with the product, including compatible protective eyewear, ultraviolet lamps, timers, reflectors, and filters, and which will, if installed or used as instructed, result in continued compliance with the standard.

(2) *Ultraviolet lamps.* The users' instructions for an ultraviolet lamp not accompanying a sunlamp product shall contain:

(i) A reproduction of the label(s) required in paragraphs (d)(1)(i) and (2) of this section, prominently displayed at the beginning of the instructions.

(ii) A warning that the instructions accompanying the sunlamp product should always be followed to avoid or to minimize potential injury.

(iii) A clear identification by brand and model designation of all lamp models for which replacement lamps are promoted, if applicable.

(f) *Test for determination of compliance.* Tests on which certification pursuant to 1010.2 is based shall account for all errors and statistical uncertainties in the process and, wherever applicable, for changes in radiation emission or degradation in radiation safety with age of the product. Measurements for certification purposes shall be made under those operational conditions, lamp voltage, current, and

position as recommended by the manufacturer. For these measurements, the measuring instrument shall be positioned at the recommended exposure position and so oriented as to result in the maximum detection of the radiation by the instrument.

[50 FR 36550, Sept. 6, 1985, as amended at 67 FR 9587, Mar. 4, 2002; 69 FR 18803, Apr. 9, 2004]



APPENDIX C: Health Canada's Red Act Regulations

PART XI: TANNING EQUIPMENT

INTERPRETATION

1. The following definitions apply in this Part.

“double-contact medium screw lampholder” means a lampholder described in *American National Standard for Lampholders for Electric Lamps*, ANSI C81.62-1991, Standard Sheet 2-158-1, entitled *Double-Contact Medium Screw Lampholder*, published by the American National Standards Institute and approved on July 15, 1991. (*douille à contact double pour vis moyenne*)

“erythema reference action spectrum” means the erythema action spectrum set out in section 5.2 of CIE Standard CIE S 007/E-1998 entitled *Erythema Reference Action Spectrum and Standard Erythema Dose*, published in 1998 by the Commission internationale de l'éclairage. (*spectre d'action érythémale de référence*)

“exposure position” means any place, orientation or distance relative to the ultraviolet-radiating surface of tanning equipment at which it is recommended by the manufacturer that the user be exposed. (*position pendant l'exposition*)

“exposure schedule” means a program of exposure recommended by the manufacturer of tanning equipment that takes into account exposure times, intervals between exposures and the degree of sensitivity for each skin type. (*programme d'expositions*)

“irradiance” means radiant power incident per unit area, expressed in watts per square metre (W/m^2). (*éclairage énergétique*)

“maximum exposure time” means the longest period for continuous exposure recommended by the manufacturer of tanning equipment.

(durée maximale d'exposition)

“protective eyewear” means a device that is worn by the user of tanning equipment to reduce the ultraviolet radiation reaching their eyes either directly or indirectly. *(dispositif de protection des yeux)*

“single-contact medium screw lampholder” means a lampholder described in *American National Standard for Lampholders for Electric Lamps*, ANSI C81.62-1991, Standard Sheet 2-157-1, entitled *Single-Contact Medium Screw Lampholder*, published by the American National Standards Institute and approved on July 15, 1991. *(douille à contact unique pour vis moyenne)*

“spectral irradiance” means the irradiance that results from radiation within an infinitesimally small wavelength range, expressed in watts per square metre per nanometre ($W/m^2/nm$). *(éclairage énergétique spectral)*

“spectral transmittance” means the ratio of the spectral irradiance that is transmitted through protective eyewear to the spectral irradiance that is incident and normal to the surface of the eyewear. *(transmittance spectrale)*

“tanning equipment” means a device that

- (a) can be equipped with one or more ultraviolet lamps; and
- (b) induces skin tanning or other cosmetic effects.

It does not include any such device that is used in the production of therapeutic effects for medical purposes. *(appareil de bronzage)*

“timer” means a device that is capable of ending the emission of ultraviolet radiation from tanning equipment after a preset period. *(minuterie)*

“ultraviolet lamp” means a device that produces ultraviolet radiation in the wavelength range from 200 nm to 400 nm and is used in tanning equipment. *(lampe à rayonnements ultraviolets)*

“wavelength” means a wavelength as measured in air. *(longueur d'onde)*

INFORMATION AND LABELING

General

2. The information and labels required by this Part must be provided in both official languages.

Information

3. The following information must accompany each piece of tanning equipment:
 - a. instructions for its operation and safe use that include
 - i. detailed directions for determining the exposure positions,
 - ii. the maximum exposure time,
 - iii. the minimum interval between consecutive exposures recommended by the manufacturer,

- iv. the maximum number of persons who may, at the same time, be exposed to ultraviolet radiation from the tanning equipment, as recommended by the manufacturer, and
- v. the ultraviolet radiation warning labels described in section 5;
- b. instructions for obtaining repairs and the recommended replacement components and accessories that comply with the requirements of these Regulations; and
- c. a warning to always follow the instructions that accompany the equipment so as to avoid injury.

Labelling

- 4. Every piece of tanning equipment must have permanently affixed to its external surface the following information, clearly legible and readily accessible to view by the user immediately before use:
 - a. the manufacturer's name and address;
 - b. the model designation, serial number and month and year of manufacture;
 - c. detailed directions for determining the exposure positions and a warning that the use of any other position may result in overexposure;
 - d. the recommended exposure time, as calculated in seconds using the formula:

$$X / (\sum V_{\lambda} R_{\lambda})$$

and converted into and expressed in minutes, where

X

is a dose not greater than 100 J/m² for the first exposure session for untanned skin, gradually increasing over the following sessions to a maximum of 625 J/m² per session,

λ

is the wavelength in nanometers,

R_{λ}

is the irradiance of the tanning equipment, measured at the minimum exposure distance, and

V_{λ}

is the weighting factor determined in accordance with the erythema reference action spectrum;

- e. the minimum interval between consecutive exposures;
- f. the maximum number of minutes of exposure per year, as recommended by the manufacturer based on a maximum annual dose of 15 kJ/m², weighted in accordance with the erythema reference action spectrum and taking into account the recommended exposure schedule;
- g. the model designation for each type of ultraviolet lamp that is to be used in the tanning equipment; and
- h. the ultraviolet radiation warning labels designed in accordance with section 5.

5. The ultraviolet radiation warning labels must
- a. be reproduced from the electronic file provided by the Minister;
 - b. include in the French version of the label illustrated in Figure 1 of paragraph (e), enclosed within a black border,
 - i. in the upper portion, on a white background, the signal word “Danger” in red with the hazard symbol to its right,
 - ii. in the middle portion, the primary hazard statement “Rayonnements ultraviolets” in yellow on a black background, and
 - iii. in the lower portion, the following message in black on a white background:

“La surexposition provoque des brûlures aux yeux et à la peau. Porter le dispositif de protection des yeux. Suivre les instructions. Médicaments et cosmétiques peuvent augmenter les effets des UV. L’exposition aux UV peut avoir des effets nocifs sur la santé et contribuer, à long terme, au vieillissement prématuré et au cancer de la peau. Ces effets sont cumulatifs. Plus l’exposition régulière commence tôt, plus les risques qui y sont associés sont élevés.”;
 - c. include in the English version of the label illustrated in Figure 2 of paragraph (e), enclosed within a black border,
 - i. in the upper portion, on a white background, the signal word “Danger” in red with the hazard symbol to its right,
 - ii. in the middle portion, the primary hazard statement “Ultraviolet Radiation” in yellow on a black background, and
 - iii. in the lower portion, the following message in black on a white background:

“Overexposure causes skin and eye burns. Use protective eyewear. Follow instructions. Drugs and cosmetics may increase UV effects. UV exposure can be hazardous to your health and in the long term can contribute to premature skin aging and skin cancer. UV effects are cumulative. Greater risks are associated with early and repeated exposure.”;
 - d. measure
 - i. 75 mm high and 200 mm wide, in the case of tanning equipment used for full- or half-body exposure, and
 - ii. 50 mm high and 100 mm wide, in any other case; and
 - e. conform to the following diagrams:

Figure C.1



Figure C.2



6. (1) Subject to subsection (2), all advertising material in relation to tanning equipment must include, in a clearly legible manner, the signal word “Danger,” the primary hazard statements “Ultraviolet Radiation / Rayonnements ultraviolets” and the messages set out in subparagraphs 5(b)(iii) and (c)(iii).

(2) Advertising material that is in only English or French must include, in a clearly legible manner,

- a. if it is only in French, the signal word “Danger”, the primary hazard statement “Rayonnements ultraviolets” and the message set out in subparagraph 5(b)(iii); and
 - b. if it is only in English, the signal word “Danger”, the primary hazard statement “Ultraviolet Radiation” and the message set out in subparagraph 5(c)(iii).
7. Every ultraviolet lamp must have a tag, tape or card affixed to it that sets out
- a. its model designation; and
 - b. the warning “DANGER — Ultraviolet radiation. Follow instructions. Use only in fixtures equipped with a timer / DANGER — Rayonnements ultraviolets. suivre les instructions. n'utiliser qu'avec un dispositif pourvu d'une minuterie.”

CONSTRUCTION STANDARDS

General

8. All controls, meters, lights or other indicators of a piece of tanning equipment must be readily identifiable and clearly labelled to indicate their function.

Safety Features

9. Every piece of tanning equipment must have the following safety features:

- a. a control by which the person being exposed may easily turn off the tanning equipment at any time without disconnecting the electrical plug or removing the ultraviolet lamps; and
 - b. a timer that meets the functioning standards set out in section 16.
10. (1) Every piece of tanning equipment must have a physical barrier between the ultraviolet lamps and the user that prevents any direct physical contact between the user and the lamps.
(2) In the case of tanning beds, the physical barrier must be constructed of plexiglass or an equivalent material.

Components and Accessories

11. Every ultraviolet lamp that is used in tanning equipment must be constructed so that it cannot be inserted and operated in a single-contact medium screw lampholder or a double-contact medium screw lampholder.
12. Every piece of tanning equipment must be accompanied by a number of sets of protective eyewear at least equal to the maximum number of persons who may, at the same time, be exposed to ultraviolet radiation from the tanning equipment, as recommended by the manufacturer of the equipment.

FUNCTIONING STANDARDS

13. Every piece of tanning equipment, whether it has its original components or replacement components recommended by the manufacturer, must, under the conditions of use specified by the manufacturer, meet the functioning standards set out in this Part.
14. Every ultraviolet lamp that is used in tanning equipment must function so that, at any distance and in any direction from the radiation source, the irradiance within the wavelength range from 200 nm to less than 260 nm does not exceed 0.003 of the irradiance within the wavelength range from 260 nm to 320 nm.
15. Every replacement ultraviolet lamp must function so that the maximum exposure time remains within 10% of the maximum exposure time originally recommended by the manufacturer.
16. The timer must
 - a. be adjustable to preset times and have a maximum timer setting not greater than the maximum exposure time recommended by the manufacturer;
 - b. have a margin of error not greater than 10% of the maximum timer setting; and
 - c. not automatically reset when the tanning equipment emissions have been ended by the timer.
17. Protective eyewear must have a spectral transmittance that is
 - a. not more than 0.001 over the wavelength range from 200 nm to 320 nm;
 - b. not more than 0.01 over the wavelength range from 320 nm to 400 nm; and
 - c. sufficient over wavelengths greater than 400 nm to enable the user to read the labels and use the control specified in paragraph 9(a).



APPENDIX D: Tanning Room Rules Poster

How to Enjoy Your Visit Today

1. Allow the tanning technician to determine your tanning time: **Red** or **pink** is a sign that **SKIN HAS BEEN DAMAGED**. Our training has shown that better, longer lasting and skin-friendly results are achieved by starting at reduced tanning times.
2. If you feel a warm to hot tingling, or an itchy sensation during your session (other than from a lotion), turn off the tanning unit and notify your tanning technician. You may have had more exposure than you need today.
3. Use only lotions that this salon sells. They have been carefully selected to maximize your tanning at this facility. To prevent fading, protect those tattoos with a lip or tattoo balm.
4. Remove all jewelry and body piercings. This removes tan lines and prevents scratching the acrylic. Remember to collect all belongings before leaving as we can not be responsible for any lost or stolen items.
5. Wear your protective eyewear during the tanning session — **Subtle, permanent damage** occurs to eyes when you don't use eyewear; even if you don't feel anything.
6. Restrooms are clean and available for your convenience.
7. Do not turn over in tanning beds. Elbows, hands, knees and feet can easily crack the acrylic resulting in pinching or cuts.
8. Only one person is allowed in the tanning room while the equipment is energized. Please make arrangements for the care of your children prior to your visit.

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This poster is available for download at
http://manuals.tanningdynamics.com/appendix_d_poster.pdf



APPENDIX E: Radiation Warning Poster

DANGER – ULTRAVIOLET RADIATION

- Follow instructions.
- Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions.


REPEATED EXPOSURE MAY CAUSE PREMATURE AGING OF THE SKIN AND SKIN CANCER.

- Wear protective eyewear.

FAILURE TO USE PROTECTIVE EYEWEAR MAY RESULT IN SEVERE BURNS OR LONG-TERM INJURY TO THE EYES.

- Medications or cosmetics may increase your sensitivity to the ultraviolet radiation. Consult a physician before using sunlamp or tanning equipment if you are using medication or have a history of skin problems or believe yourself to be especially sensitive to sunlight.
- If you do not tan in the sun, you are unlikely to tan from the use of this product.
- Consumers should report to the agency any injury for which medical attention is sought or obtained resulting from the use of registered tanning equipment. This report should be made within five working days after the occurrence.

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
RADIATION PROTECTION SECTION
1945 MAIL SERVICE CENTER
RALEIGH NC 27699-1645



RPS DANGER SIGN
REV 10/27/09

This poster is available for download at
http://manuals.tanningdynamics.com/appendix_e_poster.pdf.



APPENDIX F: Answers to Review Questions

CHAPTER ONE REVIEW

1. FALSE
2. TRUE
3. TRUE
4. FALSE
5. TRUE

[Return to the Chapter 1 Review Questions](#)

CHAPTER TWO REVIEW

1. TRUE
2. FALSE
3. FALSE
4. FALSE
5. TRUE

[Return to the Chapter 2 Review Questions](#)

MODULE ONE REVIEW

1. TRUE
2. FALSE
3. FALSE
4. TRUE
5. FALSE
6. TRUE
7. TRUE
8. FALSE
9. TRUE
10. FALSE

[Return to the MODULE 1 Review Questions](#)

CHAPTER FOUR REVIEW

1. FALSE
2. FALSE
3. FALSE
4. TRUE
5. FALSE

[Return to the Chapter 4 Review Questions](#)

CHAPTER FIVE REVIEW

1. TRUE
2. TRUE
3. TRUE
4. FALSE
5. TRUE

[Return to the Chapter 5 Review Questions](#)

MODULE TWO REVIEW

1. FALSE
2. TRUE
3. FALSE
4. TRUE
5. TRUE
6. TRUE
7. FALSE
8. TRUE
9. TRUE
10. TRUE

[Return to the MODULE 2 Review Questions](#)

CHAPTER SEVEN REVIEW

1. FALSE
2. TRUE
3. TRUE
4. FALSE
5. TRUE

[Return to the Chapter 7 Review Questions](#)

CHAPTER EIGHT REVIEW

1. TRUE
2. FALSE
3. TRUE
4. TRUE
5. FALSE

[Return to the Chapter 8 Review Questions](#)

MODULE THREE REVIEW

1. FALSE
2. TRUE
3. FALSE
4. TRUE
5. FALSE
6. TRUE
7. TRUE
8. TRUE
9. FALSE
10. FALSE

[Return to the MODULE 3 Review Questions](#)

CHAPTER TEN REVIEW

1. FALSE
2. TRUE
3. TRUE
4. TRUE
5. TRUE

[Return to the Chapter 10 Review Questions](#)

CHAPTER ELEVEN REVIEW

1. FALSE
2. FALSE
3. TRUE
4. FALSE
5. TRUE

[Return to the Chapter 11 Review Questions](#)

MODULE FOUR REVIEW

1. TRUE
2. TRUE
3. TRUE
4. FALSE
5. FALSE
6. TRUE
7. TRUE
8. TRUE
9. FALSE
10. FALSE

[Return to the MODULE 4 Review Questions](#)



GLOSSARY

Active listening — Concentrating on what you hear, then responding in a way that

shows you understand.

Basal Cell Carcinoma — The number one most common of all cancers. The most commonly identified characteristic is a volcano-like structure.

Carcinoma — cancers that initiate in the outer layers of internal organs and skin.

Cataract — a breakdown of proteins in the lens of the eye. This leads to a clouding or hazy effect that can eventually cause partial or even total vision loss.

Clean — the removal of all solids from a surface (e.g. mascara from eyewear surfaces).

Collagen — a natural protein containing connective tissues.

Conjunctivitis — also called “pink eye,” this condition is simply an inflammation of the conjunctiva. Usually caused by infection, but UV overexposure is also a cause.

Cornea — the smooth, clear durable window that lines the front of the eye.

Delayed Erythema — This represents a really bad sunburn. This is a sunburn that begins to show up 10 to 12 hours after the overexposure to UV light.

Disinfect — the killing of all pathogens (bad germs) and most good germs too.

DPD — or Delayed Pigment Darkening — the complex response of melanocytes to ultraviolet exposure. DPD can occur as early as 72 hours or take up to 10 days to begin showing.

Dermatitis — Literally means “inflammation of skin.”

Dermis — skin layer below the epidermis.

Epidermis — the outermost layer of skin.

Erythema — literally means “red.” It’s often used to refer to “sunburn.”

Heliocentric — means that the sun is the center of the universe, rather than the Earth.

High Pressure — High Pressure refers to those small halogen style lamps that fit behind the blue or purple facial plates.

Immediate Erythema — refers to *how* a person turns red rather than *when* they turn red. In other words, the amount of time needed for skin to go from normal to very red is very short.

IPD — or Immediate Pigment Darkening — the direct response of preexisting melanin to UV light exposure. IPD can occur as early as exposure time, and may endure for several days, blending in with the DPD response.

Iris — the round, colored portion of the eye that controls how much light enters into

the eye.

Keratin — a fibrous protein that provides structure to the epidermis.

Lens — that portion of the eye that focuses incoming light to the back of the eye (retina).

Low Pressure — refers to fluorescent tanning lamps due to a slight vacuum pressure inside the tube.

Macular Degeneration — a condition that results in the failure of cells in the “macula” at the back of the eye. This causes a loss of central vision.

MED — Minimum Erythema Dose — The minimum amount of exposure to ultraviolet light that one needs in order to experience slight erythema. This is sometimes referred to as a “threshold dose.”

Medium Pressure — A marketing reference to tanning units that perform better than entry level tanning units.

Melanin — also referred to as *pigment*, it primarily protects the skin from the harmful effects of sunlight by reflecting, scattering, and absorbing UV light.

Melanocyte — cells that produce melanin in the presence of ultraviolet light.

Melanogenesis — the slight tan that is produced from the absolute minimal possible exposure to ultraviolet light.

Melanoma — a dangerous spreading tumor that begins in melanocytes. They most always have melanin in them.

Melasma — Also called chloasma, this is a disorder where too much pigment is produced in patches of skin. The affected areas are primarily cheeks and the bridge of the nose.

MMD — Minimum Melanogenic Dose. Represents the minimum amount of UV exposure it takes to produce a slight tan.

Nanometer — one billionth of a meter.

Photoaging — also called “premature skin aging,” this condition is caused by overexposure to UVA. It gives skin a leathery appearance.

Photoallergy — immune system reaction to a chemical after exposure to ultraviolet light.

Photophobia — a strong desire to avoid sunlight or brightly lit places.

Photosensitivity — Sensitivity to UV light, caused by a person’s use of certain medications.

Phototoxicity — an irritation of the skin after exposure to UV light.

Pinguecula — Small, yellow or white growths (bumps) on the white part of the eye (sclera).

Pink Eye — see “conjunctivitis.”

Polymorphous Light Eruption — also known as sun poisoning — This condition erupts after prolonged or intense exposure to ultraviolet light. It can take a few hours up to a few days to show, and is characterized by itchy red bumps on sun-exposed surfaces.

Pterygium — Triangular or wedge-shaped growths that form on the white part of the eye. They point toward the pupil.

Radiation — discharging energy.

Radioactivity — describes the ability of certain materials to change their nature as they lose or discharge energy.

Retina — The layer inside the back of the eye where light and images are received then transmitted to the brain.

SAD — Seasonal Affective Disorder — adverse mood and behavior changes caused by a deficiency of UV light exposure.

Sanitize — the killing of most all pathogens (bad germs).

SPF — Sun Protection Factor — the ratio of UV exposure required to produce MED with use of sunscreen to UV exposure required to produce MED without the use of sunscreen.

Squamous Cell Carcinoma — the second most common cancer, identified by open sores that don't heal very well.

Sterilization — the killing of all single and multicell organisms.

Tinea Versicolor — White spots that generally form on the upper body and arms. They are caused by a scalp fungus. Sometimes referred to as “sun spots.”

Vitiligo — White spots that are usually well-defined and irregularly shaped. Medical treatment is necessary to correct these spots.

Xeroderma Pigmentosum — This condition is characterized by an inability to repair DNA damage in skin. People with this deficiency show a thousand times greater risk for UV-induced skin cancers than people with normal skin.

