# Sun Sense Worksheet

**Read the article,"Rayse your Sun Sense I.Q.".**
**Answer the following questions.**

1. **UV (ultraviolet rays) are the damaging rays from the sun.**
   a. **Describe what UVA rays do to the skin and what UVB rays do.**
   b. **Which are the more damaging of the rays and why?**

2. **What is melanin and what role does it have in your body?**

3. **List and describe the three types of skin cancers.**

4. **Describe things to look for that may suggest possible signs of skin cancer.**

5. **What does SPF stand for in regards to protection from the sun?**

6. **List 5 things you can do to protect your skin from the damaging rays of the sun.**

# RAISE YOUR SUN SENSE IQ

*by Melissa Abramovitz*

**READY TO HEAD FOR THE BEACH AND GET A TAN? CHECK OUT THESE SUN SENSE FACTS BEFORE YOU DO.**

Lindsey loved to hang out at the beach and bask in the sun. Being light-skinned, she burned easily and often ended up with painful blisters and peeling skin. Her doctor warned her that the permanent tissue damage from these sunburns might not show up for many years. Lindsey finally realized she was damaging herself and agreed to wear a sunscreen and to stop sunbathing.

Unfortunately, Lindsey still has a good chance of developing skin cancer. Researchers find that kids and teens who experience three or more serious sunburns are more likely to get skin cancer. In addition, the damage that produces wrinkles and blotchiness builds up over time and can make even young people look old if they do a lot of unprotected sunbathing. Youthful skin is more sensitive to the DNA and other cellular damage that creates these skin disorders, so it's important to be especially careful during the childhood and teen years.

That's not to say that you should forget about sun protection if you've already experienced sunburns or suntans. The dangers are cumulative, so the sooner you start shielding your body from the sun's rays, the less chance you have of developing serious problems. Of course, the best strategy is to protect yourself before the damage begins, so read on to find out how you can raise your sun sense.

## Dangerous Rays

Ultraviolet (UV) radiation from the sun is the culprit behind sun damage. UV rays are invisible, so you can't tell when you're getting zapped by them. But if you are outdoors, you are exposed to UV rays even in the shade, because they bounce off surfaces like water, sand, and snow.

UV rays are strongest in the summer, which is why most sun damage occurs then. But they are present all year round. Doctors recommend protecting yourself in all seasons.

Both UVA and UVB rays are damaging to the skin. UVA rays primarily affect cell membranes and destroy collagen, the protein that makes skin elastic. Loss of collagen results in sagging skin and wrinkles. Recent research also shows UVA rays damage cellular DNA and thus contribute to skin cancer. UVB radiation causes most of the burning and frying of the skin and does even more damage to cellular DNA than UVA, making it the main factor in the development of skin cancer.

Both UVA and UVB rays begin injuring the body the minute they strike. To protect themselves from the injury, skin cells produce melanin, a pigmented natural sunscreen. Melanin makes the skin look tan, but unfortunately this

happens after the damage is already done. Everyone, regardless of skin color, is at risk for skin cancers and other skin conditions.

## Signs of Skin Cancer

The American Academy of Dermatology reports more than 1.3 million new cases of skin cancer each year in the United States and estimates 80 percent of these cases could be prevented by protecting the skin from the sun's rays. Although skin cancers can be cured if caught early enough, they are often fatal if left alone.

The three types of skin cancer are *basal cell carcinoma, squamous cell carcinoma,* and *malignant melanoma.* Basal and squamous cell cancers often appear as scaly reddish, bluish, or whitish bumps that may become open sores or scabs. They are easily treated if caught before the cancer spreads.

Melanomas are less common but far deadlier than the other forms of skin cancer. Melanoma usually results from several severe blistering sunburns or from skin moles changing and becoming cancerous. Doctors recommend regular checks for any moles or freckles that grow, change shape, bleed, develop jagged edges, itch, or have more than one color. New dark areas of skin larger than ¼ inch with any of these characteristics are also danger signals and should be reported to your doctor immediately.

## Protect Yourself

Follow all of these recommendations for total sun protection:

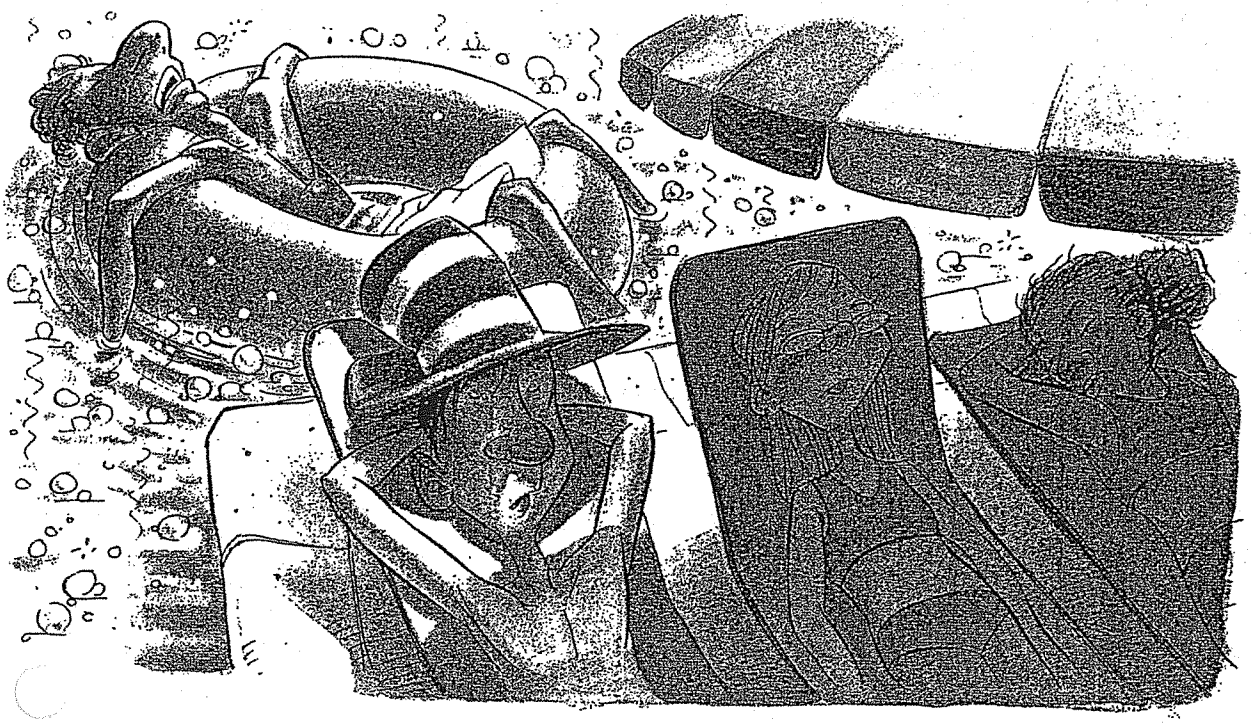
- Stay in the shade as much as possible, especially when the sun's rays are strongest, between 10 a.m. and 4 p.m.
- Wear long-sleeved, lightweight clothing with a tight weave that lets in as little sunlight as possible. Keep clothing dry for best protection.
- Wear a wide-brimmed hat and good-quality sunglasses that block UV rays to protect your face and eyes.
- Rub in plenty of sunscreen. Dermatologists say to use it every day, no matter what your skin type or color. Apply a generous amount to all exposed skin areas about 30 minutes before going outside. Reapply every two hours or more frequently if you swim or sweat, even if the sunscreen is labeled waterproof.

Doctors recommend using products that block both UVA and UVB rays. Most people need a sunscreen with an SPF of at least 15. If you're light-skinned, experts advise at least a 30 SPF.

SPF stands for sun protection factor, a rating that represents how long you can stay in the sun without burning compared to the length of time if you were wearing no sunscreen. A sunscreen with an SPF of 15 usually means you can stay in the sun about 15 times longer than with no sunscreen.

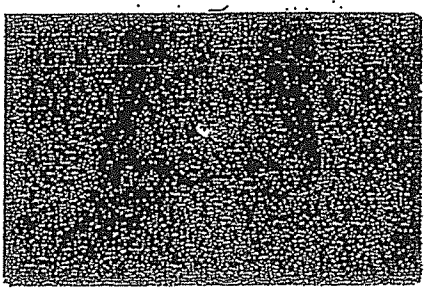
Avoid using sunlamps or tanning booths. Doctors report that these devices are just as dangerous as natural sunlight.

Make sun protection a routine part of your life. It makes a lot of sense. ✦



# What Acne Is and What You Can Do About It

If you're a teenager or almost a teenager, chances are pretty good that you have some acne. Almost eight in ten teenagers have acne, along with lots of adults. In fact, if you counted all the adults and teens in America who have acne, you'd come up with 17 million people!



Acne is very common - so common that it's considered a normal part of puberty. But knowing that doesn't always make it easier when you're looking at a big pimple on your face in the mirror. Luckily, learning about acne and taking some simple steps can help you feel better about your face.

## What Is Acne and What Causes It?

Acne is a condition of the skin that shows up as different types of bumps. These can be blackheads, whiteheads, pimples, and cysts. The type of acne that a lot of teenagers get is called "acne vulgaris." It usually shows up on the face, neck, shoulders, upper back, and chest.

The hair follicles, or pores, in your skin contain sebaceous (say: seh-bay-shuss) glands (also called oil glands). These glands make sebum (say: see-bum), which is an oil that lubricates your hair and skin. Most of the time the glands make the right amount of sebum, and the pores are fine. But sometimes a pore gets clogged up with too much sebum and dead skin cells.

If a pore gets clogged up and stays closed but bulges out from the skin, you're left with a whitehead. If a pore gets clogged up but stays open, the top surface can darken and you're left with a blackhead. Sometimes the wall of the pore opens, allowing sebum, bacteria, and dead skin cells to make their way under the skin - and you're left with a small, red infection called a pimple. Clogged up pores that open up very deep in the skin can cause cysts, which are infections that are bigger than pimples.

## Why Do So Many Teens Get Acne?

Teenagers get acne because of all the hormones that come with puberty. As your body begins to mature and develop, these hormones stimulate the sebaceous glands to make more sebum, or oil, and the glands become overactive. When there is too much sebum, it clogs the pores and leads to acne. For most people, acne goes away almost completely by the time they are finished being teenagers. If your parents had acne as teenagers, it's likely that you will, too.

## What Doesn't Cause Acne?

There are a lot of things that don't cause acne, but many people have the wrong idea about this. The only real cause of acne is overactive oil glands in the skin - and that's it. Acne isn't caused by eating greasy foods like french fries or pizza, chomping on chocolate, or drinking dark sodas. It isn't necessarily caused by wearing makeup, especially if the makeup is labeled "oil-free," "noncomedogenic," or "nonacnegenic." And stress doesn't usually cause acne in teenagers (although it can in adults).

## What Can I Do About Acne?

To help prevent the oil build-up that can contribute to acne, wash your face twice a day with soap and warm water. **Don't** scrub your face hard with a washcloth - acne can't be scrubbed away, and scrubbing may actually make it worse by irritating the skin. Try using just your hands instead.

If you wear makeup, make sure it's labeled "oil-free," "noncomedogenic," or "nonacnegenic." This means it won't clog your pores and contribute to acne. And when you are washing your face, be sure you take the time

emove all of your makeup. If you use hair sprays or gels, try to keep them away from your face, as they can clog up pores. If you have long hair that touches your face, be sure to wash it frequently enough to keep oil away. And if you have an after-school job that puts you in contact with oil - like in a fast-food restaurant or gas station, for example - be sure to wash your face well when you get home. Also wash your face after you've been exercising hard and sweating a lot.

There are many lotions and creams available at the drugstore to help prevent acne and clear it up at the same time. You can experiment with these to see which helps. Be sure to follow the instructions exactly - don't use more than you're supposed to at one time (your skin may get too dried out and feel and look worse), and follow any directions for seeing if you're allergic to it first.

## What if I Get Pimples Anyway?

Sometimes even with washing and lotions and oil-free makeup, kids get acne anyway - and it's still totally normal. In fact, some girls who normally have a handle on their acne may find that it comes out a few days before they get their period. This is called premenstrual acne, and about seven out of ten women get it from changes in hormones in the body.

If you look in the mirror and see a pimple, **don't touch it, squeeze it, or pick at it.** This might feel hard to do - it can be pretty tempting to try and get rid of it. But when you play around with pimples, you can cause even more inflammation by poking at them or opening them up. Plus, the oil from your hands can't help! More importantly, though, picking at pimples can leave tiny, permanent scars on your face.

Acne isn't really helped by the sun, either. Although a suntan can temporarily make acne look less severe, it n't help it go away permanently. And too much sun isn't a good idea, anyway, since it can cause wrinkles ..d skin cancer later in life. So **don't** soak up those rays - either under the sun or from a tanning bed - in an effort to help your skin.

Some teenagers who have severe acne can get help from a doctor or dermatologist (a doctor who specializes in skin), who can treat the acne with prescription medicine. Depending on the person's acne, this can mean using stronger creams than you can buy at the store that prevent pimples from forming, or taking antibiotics that kill the bacteria that help create pimples. Sometimes in the case of cystic acne, minor surgery can be done.

Most importantly, remember that you're not the only one with acne. Looking around at your friends should help you see that most teenagers are in it together! And of course, keep in mind that acne doesn't hang around forever, and that within a few years you won't have it anymore.