

AGE SPOTS

Dr. Anthony Napoleon, Ph.D., ABMPP

Age spots! The name alone is enough to make you feel depressed. Believe me, the scientific names won't leave you feeling any better. For instance, rather than having age spots, you can tell your friends you suffer from "Senile Lentigines." It is not bad enough that you have brown spots on the back of your hands, neck, upper back, face and other sun-exposed areas of your body, now you can add the word senility into the mix.

At the risk of confusing our astronomer readers, let's you and I use the term "sun spots" to refer to these annoying little brown splotches on the sun exposed areas of our body. We used to tell patients that they could confirm the sun as the culprit in causing these spots by having them look at their inner thighs, which used to be immune from forming sun spots. Today, with tanning salons and bare-all sun exposure, we have begun to see even inner thighs sporting sun spots.

I would be remiss not to include a brief reference to some of the other ill-effects of over exposure to the sun. These would include, most notably, actinic keratoses and telangiectasia. Actinic keratoses are pre-cancerous lesions that typically look like rough, sometimes scaly red patches of skin. Telangiectasia refers to broken capillaries. We see these most frequently on the nose, cheekbones and temple areas of the face. I mention these other sun-related conditions because some patients can benefit from medical care that treats all three problems. But let's now focus on sun spots.

First and foremost, do not despair. You can do a lot to keep the sun spots you have from getting worse or multiplying, and you can help to keep new ones from forming. Depending on how ambitious you are, your active treatment choices can range from over-the-counter creams and lotions to medical care. With the right medical treatment you can kiss your sun spots goodbye.

Sun spots are hyper-pigmented areas of the skin. The color comes from melanin, a pigment made by cells called melanocytes. Exposure to the sun, over time, can cause melanocytes to work overtime and thus create little patches of overly pigmented skin. You might be surprised to find out that it is not just the sun, alone, that causes sun spots.

A chemical called psoralen can encourage the development of sun spots. If you handle foods that contain psoralen, for example, limes and parsley (I used to include in this list parsnips, but I've never met anyone not associated with the Food Network who had ever touched a parsnip), then go out in the sun, you can actually speed up the process of forming sun spots. Some lotions and perfumes containing bergamot oil or musk, when mixed with the sun, can help cause sun spots. Having northern European genes, especially if you are a blond or redhead, makes you more susceptible to all of the ill-effects of the sun. So what to do with sun spots?

Well, two over-the-counter creams, *Porcelana* and *Esoterica*, contain a substance called hydroquinone. Over time, hydroquinone can help fade sun spots, freckles, and other irregularly pigmented areas on your skin. But using non-prescription strength hydroquinone can be slow, as in months. Prescription strength hydroquinone, as in *Eldoquin-Forte*, can do the trick a lot faster.

The alpha and beta hydroxy acid based gels and lotions (check the label) can also help lighten sun spots. Of course, this can get pretty tedious, applying drops of any lotion or gel on your sun spots, so many patients opt for an overall application of the acid based lotions. Prescription Retin-A (tretinoin) can also help do the trick, in addition to helping to improve the overall condition of your skin. Be advised, however, that both the alpha and beta hydroxy acids, along with Retin-A, make you MORE susceptible to sun damage. So if you decide to use these products, sun screen, hats and cover-ups are a MUST, not just an option.

Now not too long ago, liquid nitrogen was the doctor's treatment of choice to lighten sun spots. Air is 76% nitrogen, but in liquid form it is 321 degrees Fahrenheit BELOW zero! Ironically, when something that cold is applied to the skin, it can "burn" the skin, and may cause hypo-pigmented areas. So you end up trading in a little brown spot for a little white spot.

Today, many physicians use lasers. Think of a laser as a highly focused and tuned beam of light. The Alexandrite, Q-switched ruby, and Nd:Yag (Neodymium-doped Yttrium Aluminum Garnet), specifically target the pigmented brown spot while harmlessly passing through non-pigmented skin. Lasers have their effect on melanosomes. A melanosome is a little organelle found in melanocytes. The

melanosomes are pulverized by the laser into such small parts that your body actually absorbs, and then excretes the brown spots. Now one laser that I am particularly excited about is called the Fraxel® laser. Like many conservative writers on the subject I am slow to warm up to “new” treatments. But even the most conservative clinicians have been won over by this laser. It can treat pigment problems much more serious than sun spots, for example, the Fraxel® laser is approved by the FDA to treat melasma.

Let’s not forget about modified trichloroacetic-acid (TCA) peels. These chemical peels not only remove fine lines and wrinkles, encourage collagen production and can give you a baby smooth face, the modified TCA peel removes sun spots, actinic keratoses and can significantly improve broken capillaries. Some of the non-medical dermabrasion systems can improve sun spots over time.

As far as home remedies, well...I’ve heard about “skin-bleaching pills” that contain a marine algae that is supposed to be used by the stars to help lighten their skin. I heard of people using everything from yogurt to green-tea on their face. All I can say is, Caveat Emptor!

No article would be complete without the following warning: Some sun spots are actually the precursors to skin cancer, so see your doctor. Sometimes the brown spots can be related to your liver, so again, see your doctor if you have any doubt. Also, if you are pregnant or thinking about becoming pregnant, check with your doctor before putting anything on your skin. If you are thinking about impregnating someone, that is a different story altogether. And yes, men do get sun spots and yes the treatments I have referenced here work the same for men and women.

Most people start to get sun spots in their 30s, hardly old by today’s standards. With 70 being the new 50, all of us (if we are lucky) will have to deal with such minor imperfections as sun spots on our skin, sooner or later. However, sun exposure (this would include tanning beds) is becoming more dangerous. A recent study published by Dr. Leslie Christenson at the Mayo Clinic found that the rate of two types of skin cancers tripled in women under the age of 40. And speaking of cancer, according to the American Cancer Society, you need to be especially careful in the sun if you:

- ❖ have lots of moles, irregular moles, or large moles
- ❖ were previously treated for skin cancer

- ❖ work indoors all week and then get a tan on weekends
- ❖ live or vacation in tropical or subtropical climates
- ❖ have freckles and burn before tanning
- ❖ have fair skin; or blond, red, or light brown hair
- ❖ have a family history of skin cancer, especially melanoma
- ❖ live or vacation at high altitudes (ultraviolet radiation from the sun increases 4% to 5% for every 1,000 feet above sea level)
- ❖ spend a lot of time outdoors
- ❖ have had an organ transplant
- ❖ have certain diseases, such as lupus erythematosus
- ❖ take tetracycline, sulfa drugs and some other antibiotics,
- ❖ take naproxen sodium and some other nonsteroidal anti-inflammatory drugs,
- ❖ take phenothiazines (major tranquilizers and anti-nausea drugs)
- ❖ take tricyclic antidepressants
- ❖ take thiazide diuretics (medications used for high blood pressure and some heart conditions)
- ❖ take sulfonylureas (a form of oral anti-diabetic medication)
- ❖ take medications that reduce immunity

So your sun spots could be telling you something. I am telling you that a tan, far from being a sign of health, is a sign of risk taking. By all means treat your sun spots and remember, pretty is as pretty does.