IN HEALTH:

A-Peeling to Your Better Self

BY LISA K. HARRIS, PH.D. PHOTOGRAPHY BY THOMAS VENEKLASEN

A SCALY RED PATCH APPEARED ON MY right

hand, seemingly overnight. Its presence reminded me that I was middle-aged and that I spend too much time in the sun. Freckles dot both my hands, some large, others pinpoints. Age-spots, I thought of the lot. But then about three weeks after it appeared, the red patch began to itch, and one Saturday morning I woke to find that the scaly part had grown, spread in all directions. A quick (one click) search on the Internet turned up a photo match of my patch: squamous cell carcinoma. I called my dermatologist Monday morning.

"It's good you came in right away," says Senait Dyson, M.D., of Dyson Dermatology, as she examines my spot. "Early detection is key to a healthy outcome."

One well-practiced incision with her scalpel and Dr. Dyson removes my blemish. "We'll send it to the lab and see what it is, and what your next steps are."

On my way out I buy a pump-bottle of broadspectrum sunscreen, opting for the highest SPF (46), and vow to become more zealous about using it.

And well I should. According to the Centers for Disease Control and Prevention, skin cancer is the most common form of cancer in the United States, with over one million people diagnosed each year. There are three basic types: basal cell carcinoma, squamous cell carcinoma, and melanoma. The vast

majority of skin cancers are basal and squamous cell carcinomas, and while they may be disfiguring if not treated, are unlikely to spread to other parts of the body. Melanoma is more aggressive and more likely to spread.

Skin cancer is caused by exposure to the sun's ultraviolet (UV) light and damage to our skin accumulates over our lifetime. Ninety-percent of skin cancer is found in areas of our bodies that are exposed to the sun, according to Jody Comstock, M.D., of Skin Spectrum. UV rays can reach us on cloudy days as well as on sunny days, and they reflect off surfaces like sand, snow and water. Exposure to them also causes our skin to look aged.

According to Gerald Goldberg, M.D. Dermatologist, Pima Dermatology, sun exposure causes most of the changes to the skin that we associate with aging: brown spots and degradation of collagen and elasticity, which causes sagging, wrinkles and thinning. The sun also affects fat deposits. "In Arizona, we see less volume on the left side of the face, as well as more crow's feet and deeper wrinkles," Dr. Comstock says. "These changes are characteristics of automobile drivers. If you are always a passenger, then the effects will be on the right side of your face." We might think the sun gives us a healthy glow, particularly when we are young, but as we grow older, that "healthy glow" can cause us to look older than we are.

PREVENTION

reventing damage to our skin and developing healthy, younger-looking skin, is in our control. "Wear sunscreen, wear a big hat, don't smoke, eat right, and don't use a tanning bed," Dr. Goldberg advises. "Basically, apply the ABCs of sun control: Avoid, Block and Cover."

The sun produces UV rays, electromagnetic radiation, which is measured by wavelength. UVA is electromagnetic radiation with longer wavelengths while UVB is radiation with shorter wavelengths. UVA penetrates the skin and scientists believe UVA causes aging as well as contributes to or initiates many skin cancers. UVB causes reddening and sunburn, and it also contributes to skin cancer.

Dermatologists strongly recommend that people avoid the sun between 10 a.m.

and 4 p.m., when UVA and UVB are at their strongest. "Seek the shade mid-day," Dr. Goldberg advises.

Dr. Gerald Goldberg with

patient Tara Espinoza.

Block the sun with sunscreen. "The best sunscreen to use is labeled broad-spectrum, meaning it protects against UVA and UVB rays," Dr. Goldberg says. "And use sunscreen whose active ingredient is titanium oxide or zinc oxide." Zinc oxide is the white paste lifeguards once slathered on their noses. Now, zinc oxide is produced in a clear liquid form. It is the main ingredient in the sunscreen I purchased.

Sunscreen is available in different

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-Gerald Goldberg, M.D.

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-Jody Comstock, M.D.

strengths, often noted on packaging as SPF, or Sun Protection Factor. The nomenclature is confusing, as it does not mean you are protected for the amount of time noted by the SPF number and the SPF that works for one person may not work the same for another. "Everyone turns red or burns at a different rate," Dr. Goldberg says. "If you are fair skinned with green eyes, you might begin to turn red during the mid-day period within five minutes. So, if you use a sunscreen with 24 SPF, you can stay outside for 24 times 5 minutes or 120 minutes before burning." If you have an olive complexion and start to burn after an hour in the mid-day sun, that burning won't occur until 24 hours if using 24 SPF sunscreen. Medications such as ibuprofen, some heart medications and some antibiotics make you extra-sensitive to the sun. "Always check your medicine," suggests Dr. Comstock, "And make sure that you aren't at risk for burning faster."

"Remember to reapply sunscreen if you are swimming or sweating," Dr. Dyson recommends. "You may be well within your time limit for your sunscreen's SPF and don't think you need to reapply, but sweat and swimming pool water removes sunscreen, so reapply often."

One can't stay in the shade, inside or slather sunscreen everywhere all the time, so covering is the third leg of Dr. Goldberg's anti-aging ABCs. Wear long sleeves, hats, close-weave fabrics, so that the sun cannot penetrate your clothing. There are several lines of clothing that contain SPF fabric, so these are an option as well, one that is important in our Arizona climate, where the sun shines nearly every day of the year. Dr. Comstock suggests wearing sunglasses, too, as "UV causes long-term redness in the eyes and cataracts."

Diet plays an important role in caring for and maintaining healthy skin. A diet rich

in Vitamins A, B, and C, the vitamins most often found in fruits and vegetables, will help. These vitamins, especially Vitamin A, increase skin cell turnover, the process of sloughing-off damaged cells and creating new ones so that healthy skin is what you see on the surface. These vitamins also even out skin tone, increase blood circulation, and increase production of collagen, which helps with the skin's firmness. "Vitamins A, B, and C are overall tonics to the skin," Dr. Goldberg says.

There are many products on the market that include Vitamin A, the most well known of which is Retin-A (prescription) and Retinol (over-the-counter), which was developed in the 1960s for acne treatment. Using retinoid creams and serums topically "will prevent damage from going further," Dr. Dyson says.

"I can tell the difference in people who use Retin-A and those who don't," says Gwen Maxwell, M.D., of Maxwell Aesthetics Cosmetic Surgery and Medi Spa. "Retinoids make the skin smoother, decrease the diameter of capillaries, and even-out the skin's pigment."

Retinoid skin care products are available over-the-counter and through prescription. The products sold by prescription contain a higher concentration of vitamin A and other anti-oxidants, than do those products sold over the counter.

Jana Westerbeke, co-president of Gadabout SalonSpas, follows her own advice when it comes to taking care of her skin. "I'm a firm believer in minimizing dead cells. I start each morning by cleaning my skin, moisturizing and wearing sunscreen." Westerbeke recommends eliminating dead skin cells every evening with an exfoliant. "You want to start each day with a fresh palette," she advises, and "not put cream on top of dead skin. It doesn't soak in and do anything to improve your skin if you do."

TREATMENT

wo weeks after my blotch removal, Dr. Dyson's office calls with the lab results: pre-cancerous. Not yet squamous cell carcinoma, but if left untreated, it might develop into it. The cells at the margins (or edges of what was removed) are all pre-cancerous, so I schedule another appointment for further tissue removal.

"It's best to remove cancerous and



a biopsy, the size and location of the suspected lesion, and the age of the patient. "Tumors travel along nerves," Dr. Dyson says. "They are more aggressive if near the ears, lips, nose and eyes." The same tumor might not be as aggressive if it was located on the torso, according to Dr. Dyson.

TOP OF DEAD SKIN."

of Gadabout SalonSpas

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If the suspicious tissue is located on the face, doctors practice tissue conservation. "I will remove the smallest amount of tissue so as not disfigure my patient and to maximize function outcome," Dr. Dyson says. "For example, if the suspicious tissue is on your lip, you can't smile or eat well if I take off too much."

At my appointment time, I return to Dr. Dyson's office. A circle is drawn on my hand to mark the spot for removal. After the local anesthesia takes effect, Dr. Dyson removes the area. "That should do it," she says. I leave her office with a bandage on my hand and a card with a noted follow-up

appointment three months later. The entire procedure takes less than 15 minutes.

But removing pre-cancers or cancerous skin cells only accounts for part of the visits to dermatologists. "You can't reverse the aging process," Dr. Lo says, "But you can slow things down." We lose subcutaneous fat as we age, making smile and laugh lines more prominent. We shrink in height because of bone mass loss, and the same thing happens in our face, according to Dr. Maxwell. "The bone retreats and we have laxity in our skin from loss of collagen, so we develop wrinkles and excessive soft tissue. We develop bags under our eyes, puffiness in the eyelids and a double-chin." There are two broad categories for treating aged-looking skin: non-surgical and surgical procedures, and within each of these categories there are many options.

A popular non-surgical procedure is injections of Botox, which smoothes wrinkles. Another option is injecting fillers, which fill in lost volume and, "make patients look youthful," Dr. Lo says.

Lasers and chemical peels also are popular. Lasers are beams of light that remove brown spots, tattoos and birthmarks. Peels are chemicals applied topically, and many are made from fruit acid. "They cause the top layer of skin to slough-off more quickly, so that skin looks smoother and youthful," Dr. Maxwell says. Lasers and peels leave the skin red for a while, and it takes time to recover. This recovery time is referred to as "down time." For some procedures the down time may be as long as 10 days.

"Prospective users of lasers and peels meet with a specialist and, together, they develop a unique skin care regime," Dr. Dyson says. What might be needed for a patient who regularly plays golf and is outside a lot versus a patient who does not go outside will differ. "The regime will be based on what the patient can tolerate, their lifestyle, desired end-result, and what they can afford, both in time and money." The use of lasers and peels often are conducted in a series of multiple treatments. For example, peels may be done monthly, while lasers are administered every few months.

Surgical procedures that slow the aging process include facelifts, brow lifts and eyelid lifts. "They freshen and brighten

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CAPILLARIES, AND

EVEN-OUT THE

SKIN'S PIGMENT."

-Gwen Maxwell, M.D.

MORE SKINNY ON SKIN

Here's how our panel of experts responded to two vital questions.

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	In addition to sunscreen, what are two of the best things a person can do to have healthy skin?	What are the two best anti-aging protocols you recommend?
DR. KATHY ORLICK Foothills Dermatology	ExfoliationNourish with creams and growth factors	Cleanse with alpha-hydroxy acid cleanser, exfolia with glycolic acid, and apply antioxidant/growth fac Medical grade skin care products, chemical peels laser treatments
DR. BARRY KUSMAN Facial Artistry	 Add a growth factor to the skin which helps repair past damage. Add a healthy dose of an antioxidant to protect from further damage either as a stand alone like Vitamin C and E or a growth factor plus an antioxidant. 	The combined use of a Growth factor, a Retinol and good sunscreen with both UVA and UVB. If pigment is present in the skin that the patient wants to correct, use a Lightening agent, a Retino and a good sunscreen.
DR. PETER KAY Perfection Plastic Surgery	Eat a healthy diet that includes foods complete with antioxidants and hydrate well. Maintain clean skin. An excellent way to achieve this is through the use of physician grade cleansers and the Clarisonic, (sonic cleansing) skin care system	The use of physician grade skin products using the GRASS concept: Growth factor products; Retinols; A oxidants; Sun Protection Products; Speciality Products (for example skin brighteners and eye products) Obtaining regular skin procedures that are design to stimulate collagen, the support matrix of the skin The recommended procedures range in intensity from light chemical peels and microdermabrasion through laser resurfacing.
DR. CHRIS MALONEY Maloney Plastic Surgery	Broad Band Light Therapy can reverse the signs of aging caused by photo-damage. Laser resurfacing can remove pre-cancerous lesions and even out the tone and texture of the skin.	Good skincare regimen complete with a Retin At increase cell turnover. BBL Forever Young (4 times a year) to increase colla and remove sun damage
DR. PATRICIA MARS Venus by Mars	Add an antioxidant and a growth factor to daily regimen (Retin A). Others antioxidants are preparations with minerals such as copper, zinc and iron. Use growth factors which stimulate the skin to produce new skin cells and collagen and are therefore a wonderful addition to create healthy skin.	•ZO antiaging system from Zein Obagi •SkinMedica system.
DR. KATHLEEN DUERKSEN Kathleen Duerksen M.D., F.A.C.S.	• A good night's sleep • Hydration	 Exercise — walking fixes almost everything. Go for walk even if you don't feel like it. Walk until you feel go and walk yourself into a good mood. For skin, the best is Retin-A of all the lotions and potice.
DR. ALEX CADOUX Greenspring Rejuvenation	Minimize UV exposure: wear UV protective clothing and eyewear and hats. Sunblocks (UVA and UVB) reduce the amount of UV exposure but don't eliminate it. Improving one's physical health usually will	Lead a healthy lifestyle, emphasizing good nutriti hydration, exercise, stress reduction and restful sle Optimize hormonal status and consider nutrition supplementation. Our bodies accumulate certain to

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the skin and make it look rejuvenated," Dr. Lo says. Double-chin removal is another surgical option, and is achieved by re-creating the 90-degree angle between the throat and jaw. In addition, patients can opt for volume redistribution. "The process involves removing a patient's fat with liposuction and, after having it purified, re-injected in the face," Maxwell says. "Fat is rich in progenitor cells, and with its injection, fat changes the quality and integrity of skin."

The longevity of anti-aging treatment depends on how well patients take care of their skin. "It amazes me how many of my patients resist maintaining their skin after having a procedure," Dr. Lo says. A typical facelift will last 10 to 14 years if a patient takes good care of their skin. If not, a patient may return for another facelift in as few as five years after the first.

MAINTENANCE

ur skin is not like our skeletal muscles," Dr. Maxwell says.
"We can't do exercises to change the skin." Age-related changes are inevitable, but we can slow the process with a good skin-care regime. For many of the skin-care experts I spoke to, a maintenance regime that supports healthy skin is the same as the prevention regime for lessening the wear and tear on skin from age and sun exposure.

"Get fit and stay fit," suggests Dr. Comstock. A successful maintenance program "begins from the inside out: exercising, eating right, resting and not smoking."

All the experts I spoke with agree, never use tanning beds. "You are cooking your skin," Westerbeke advises. "A healthier

alternative is using a spray-tan product. You get that fresh tanned look without a tanning bed's harmful effects."

Good skin care depends on your budget, according to Dr. Goldberg. "I suggest using a cleanser, Vitamin C serum, alternating one day of Retin-A followed by a Vitamin A and B recovery cream the next day, and the use of a sunscreen every day."

Conducting a self-exam for changes to our skin is important. "Don't depend on a spouse or friend or your medical care practitioner to determine if you have new moles or moles that aren't moles," Dr. Dyson says. She advises people to get to know their skin, the moles, freckles, dark spots and wounds that don't heal. "If there is a change, make an appointment with a dermatologist immediately." Dr. Comstock recommends an annual check-up for your skin.

The current focus in the development of skin-care products are items that multi-task: foundation with sunscreen; shampoo, conditioner, and hair finishing products (gels and texturizing formulas) with sunscreen. "Now, there are sunscreens that are in powder form," Westerbeke says. "They are water resistant and don't feel greasy."

Another trend is injecting liquid growth factor, which is synthetically made. This product smoothes skin and lessons wrinkles. "The products aren't perfected yet, but will be soon," Dr. Comstock says.

Taking care of your skin is a commitment, not a onetime occurrence. "You are never too old or too young to start," Dr. Dyson advises. The sun ages our skin a lot in Arizona. "Our skin, hair, and nails are a lot dryer than if we lived in a cooler, shadier climate." She suggests drinking plenty of water, and "moisturize, moisturize, moisturize." **TL**

