

# Stanford Hospital Health Notes

special feature

A community health education series from Stanford Hospital & Clinics

## Keeping Close Watch Can Catch Skin Cancer Early

Kelly Bathgate's mother was vigilant. She had three daughters, all fair-haired and fair-skinned, and the family spent several years living in Hawaii and in the Philippines. "My mom was always putting sunscreen on us," Bathgate said. "She did everything she could. We lived on the beach, and we were always outside."

Her mother's best intentions, however, were not enough. Even with sunscreen, Bathgate would get sunburned, sometimes weekly. By the time she was 24, she was conscious enough of the freckles she'd acquired that when her best friend, also fair-skinned, mentioned she'd started going for annual skin examinations, Bathgate began to do the same. A few years later, her dermatologist suggested checks every six months.

Bathgate moved to the Bay Area and fell a bit behind on her checkups. Then a friend arrived for a holiday visit. "What's that on your face?" he asked. "That's always been there," Bathgate replied. "Not like that it hasn't," her friend said. It was a spot that her dermatologist had been watching for a couple of years, but now, in just a few months, it had changed markedly.

Bathgate quickly called a local doctor for an exam, which included the removal of a small portion of the spot. A week later, the call came: the spot on Bathgate's face was melanoma. At first, Bathgate said, "My reaction was fairly nonchalant. My dad's had basal cell skin cancer removed several times. He also has a redhead's complexion and I always suspected that I would deal with the same." But her doctor had different thoughts. "The difference between melanoma and basal cell," she told Bathgate, "is that melanoma is unpredictable in how it spreads—and it spreads really quickly."

### Increasingly common diagnosis

That's when Bathgate called Stanford Hospital & Clinics and found Sumaira Aasi, MD, director of Mohs and dermatologic surgery at the Stanford Medicine Outpatient Center in Redwood City. Aasi was not surprised to see melanoma in someone as young as Bathgate, who was just 32.

"You don't think of a younger person getting cancer, any kind of cancer, but we are seeing an increased incidence of skin cancer in adolescents and young adults, especially in people with fair skin who've spent time in the sun," she said.

"Kelly was the perfect patient because she pursued treatment, and we caught her melanoma in the earliest phase possible." Using only local anesthetic to numb Bathgate's cheek, Aasi was able to remove Bathgate's melanoma and repair the wound, leaving a barely perceptible scar. When the tissue was examined under the microscope, Aasi was able to confirm that the margins around the removed melanoma were clear of cancer. Nor had the melanoma gone below the uppermost layers of the skin, making it a very superficial cancer with very low risk of recurrence.

***"We're not asking people to get on a treadmill or not eat their favorite foods. We're just recommending that people treat sunscreen like brushing their teeth or using deodorant."***

— Sumaira Aasi, MD, director of Mohs and dermatologic surgery, Stanford Hospital & Clinics

Our skin's function as the primary and first protective barrier against the environment almost guarantees that at some point in a lifetime, it will be damaged. Exposure to the sun is impossible to avoid, of course. So, it seems, is sunburn. The most recent federal survey showed that half of all American adults have had at least one sunburn in the last year. Among U.S. residents ages 11 to 18, the rate jumps to almost three out of four. Those degrees of exposure now mean that one in five Americans will develop some form of skin cancer in the course of a lifetime.

Each year, about 3 million will be diagnosed with basal cell carcinoma, the most common type; about 500,000 cases of squamous cell carcinoma will be recorded, the second most common type.

About 76,000 new patients will be told they have melanoma, the most aggressive of the three types. It represents just 4 percent of all skin cancers, but accounts for 80 percent of deaths from skin cancer. Researchers have also found that the number of sunburns over a lifetime increases the risk of melanoma.

Sun exposure, and particularly the kind that produces sunburn, remains the single most predictive risk factor for development of skin cancer, which may explain why, as Aasi put it, "dermatologists are very passionate about skin cancer because it is one of the few cancers that is preventable."

When tanning salons become commonplace, starting in the 1980s, skin cancer rates for younger women began to climb. In the last 30 years, the number of women under age 40 diagnosed with basal cell carcinoma has more than doubled and the incidence of squamous cell carcinoma in that age group has increased 225 percent. Rates of melanoma rose 150 percent.

While people with darker skin can get skin cancer, Aasi said, the risk is higher for people with fair skin. Making changes, she said, doesn't require extreme measures. "We're not asking people to get on a treadmill or not eat their favorite foods," she said. "We're just recommending that people treat sunscreen like brushing their teeth or using deodorant—"

don't leave the house without it no matter what the weather is like."

And using sunscreen works: Recently, Australian researchers released the results of a study in which they followed 1800 patients for over 10 years and found that those who used sunscreen on their faces, ears and tops of hands once daily reduced their rate of melanoma by 50 percent compared with those who used sunscreen on a discretionary basis.

### Advanced treatment and research

What sunscreen, sunblock, hats, long sleeves and shade does is prevent those cellular changes that trigger cancer's abnormal growth. Aasi and her colleagues are part of the Stanford Pigmented Lesion and Melanoma Program (PLMP), a large team of clinicians and researchers working to advance the understanding of skin cancer. The team's efforts include research and clinical trials in prevention, early detection and treatment, particularly treatment that combines surgery, chemotherapy and radiation.

Susan Swetter, MD, who directs the program, recently received the 2012 Humanitarian Award from the Melanoma Research Foundation. One of her most recently published papers documented the importance of both self- and physician skin examinations for older men, who



Norbert von der Groeben

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### Sun Damage Basics:

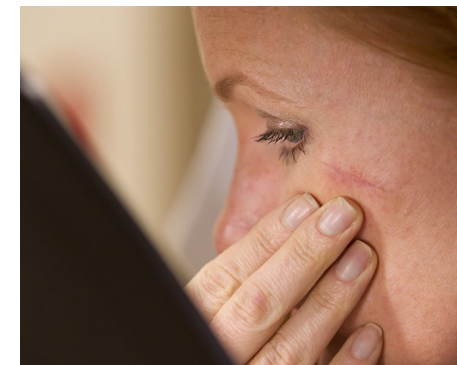
- Ultraviolet B (UVB) rays are the primary cause of sunburn and skin cancer, although ultraviolet A (UVA) rays also play a role in skin cancer development. UVA radiation also leads to premature signs of aging in the skin, called photoaging. They penetrate more deeply into the skin than UVB. They can also pass through the ozone layer and glass. Both types of UV radiation penetrate through clouds.

### How to protect your skin:

- Apply sunscreen with an SPF (sun protection factor) of at least 15 to 30 daily before going outside.
- Use enough: Two tablespoons, a palm-full, for full body coverage and one teaspoon for the face and ears. Reapply at least every two to three hours, especially if you're sweating or swimming. If your scalp is not covered fully by hair, try a spray-on sunscreen or a sunscreen gel.
- Wear a hat that covers your face, ears and the back of your neck.
- Cover as much of your skin as you can. A tightly woven, light-colored fabric can protect skin better than inadequately applied sunscreen.
- Avoid the mid-day sun (between 10 a.m.-4 p.m.), especially in the summer, unless you are fully protected. Seek shade when possible.
- Wear sunglasses to protect your eyes.
- Avoid tanning beds. The type of light they emit causes both non-melanoma skin cancers and melanoma.

For more information about skin cancer care at Stanford, visit [stanfordhospital/melanoma](http://stanfordhospital/melanoma) or call 650.498.6000.

Join us at <http://stanfordhospital.org/socialmedia>. Watch the new Stanford Hospital Health Notes television show on Comcast: channel 28 on Mondays at 8:30 p.m., Tuesdays at 3:30 p.m. and Fridays at 8:30 a.m.; channel 30 Saturdays at 10:30 p.m. It can also be viewed at [www.youtube.com/stanfordhospital](http://www.youtube.com/stanfordhospital).



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are more likely to develop and die of melanoma. Last year, the program expanded to include a special skin cancer clinic for transplant recipients whose immunosuppressive medication puts them at higher risk for squamous cell cancers. That clinic will be broadened this fall to provide dermatology care for patients who have been treated for any sort of cancer; treatment side effects include a higher degree of vulnerability to skin cancer.

The Pigmented Lesion and Melanoma Program works with the Stanford Division

of Nuclear Medicine and Molecular Imaging, and with members of the Radiology and Engineering Departments, to use the newest imaging techniques for preoperative assessment and lymph node mapping. The group is currently investigating a hand-held gamma camera that uses radioactive tracing to build spatial images.

Stanford's Dermatopathology Services also offer a highly sensitive clinical test that can identify specific genetic changes present in melanoma so that targeted therapy can be specifically designed for individual patients.

### A changed perspective

Bathgate is still working through what happened. "It's been interesting to get such a diagnosis and then have it be gone within a month," she said. "But more than anything, I just feel incredibly lucky. It's reminded me of how precious and valuable life is." She has begun to be more careful with small but important changes. "I'll be wearing SPF 45 or 50 instead of 15 or 25, and I'm definitely putting it on every single time I leave my house—not just on my face, but on all exposed skin. And I've got a spray sunscreen to make sure I



Norbert von der Groeben

Since her melanoma diagnosis, Bathgate has made some changes in her routine. She's using SPF 45 or 50 sunscreen instead of the 15 or 25 she once did. "I'm definitely putting it on every single time I leave my house," she said, "not just on my face, but on all exposed skin."

### What to know about sunscreens:

- Use an SPF of at least 30, but be aware that this number only reflects how well UVB rays are filtered. Measuring a sunscreen's protection against UVA rays is more complicated but now required for coverage of both types of UV radiation.
- Look for sunscreens labeled broad spectrum, meaning their ingredients provide protection against the full range of UVA and UVB. Sunscreens with an SPF beyond 50 do not appear to offer significantly increased UVB protection. New FDA guidelines will limit all American sunscreens to SPF 50+.
- No sunscreens are fully waterproof, although they may be labeled as water resistant.
- Sunscreens do have expiration dates and will deteriorate if stored at higher temperatures.
- Depending on their ingredients, sunscreens either absorb or reflect harmful rays. Sunscreens with micronized titanium dioxide or zinc oxide, in conjunction with chemicals like avobenzone and oxybenzone, combine the two approaches.

### Free Screening

Dermatologists from Stanford Hospital & Clinics will provide free skin examinations from 8 a.m. to noon, Saturday, June 2 in the Dermatology Clinic on the fourth floor of Pavilion B at the Stanford Medicine Outpatient Center, 450 Broadway, Redwood City. The screening is recommended for people with fair skin, excessive exposure to the sun, many or atypical moles or a parent or sibling who has had skin cancer. For more information, call 650.723.6316

reach all the parts that are hard to reach. I'm more conscientious."

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— Kelly Bathgate, patient, Stanford Hospital & Clinics

She's also going to spend just as much time outside, if not more but safely, protecting her skin from the sun. "My favorite thing to do in my free time is to be outside—running, hiking, being near the water," she said. "And this will make me be outside more because I'm going to live my life — every moment of it."

She has begun to talk about her skin cancer. "A friend saw the scar on my face a few weeks after the surgery and asked, 'What happened?' I told him, and he said, 'I can't believe you didn't tell me. I said, 'It's kind of personal and I didn't want to make a big deal of it,' and he said, 'You really need to tell people about this because we're out in the sun and should know that can happen to any one of us.'"

She told another friend who said, "Oh, my husband is a redhead and I don't think he ever gets skin checks. I should tell him to do that." Bathgate said, "Yeah, you should!"

"I think my generation is probably a lot more conscious of all the health risks," she said, "certainly more than my parents' generation was, and of course more than their parents' generation before. Still, especially at this age, skin cancer is one of those things that you hear about happening but don't think about it happening to you."



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Stanford Hospital & Clinics is known worldwide for advanced treatment of complex disorders in areas such as cardiovascular care, cancer treatment, neurosciences, surgery, and organ transplants. It is currently ranked No. 17 on the U.S. News & World Report's "America's Best Hospitals" list and No. 1 in the San Jose Metropolitan area. Stanford Hospital & Clinics is internationally recognized for translating medical breakthroughs into the care of patients. The Stanford University Medical Center is comprised of three world renowned institutions: Stanford Hospital & Clinics, the Stanford University School of Medicine, the oldest medical school in the Western United States, and Lucile Packard Children's Hospital, an adjacent pediatric teaching hospital providing general acute and tertiary care. For more information, visit [stanfordhospital.org](http://stanfordhospital.org).

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