

# cancer NEWSLINE

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>> Welcome to Cancer Newsline, your source for news on cancer research, diagnosis, treatment, and prevention. I'm your host, Dr. Oliver Bogler. Our guest is Dr. Jeffrey Gershenwald, professor in surgical oncology, and we'll be talking about advances in diagnosis and treatment of skin cancer. Dr. Gershenwald, what's the incidence of skin cancer, melanoma, in the U.S., and is it rising?

>> Over 80,000 patients, individuals, will be expected to be diagnosed with melanoma this year. It's the fifth and seventh most common cancer of those that we actually measure in the U.S. And unlike many other cancers where the incidence is either stable or has been decreasing over the last years to decades, in melanoma, the incidence continues to increase probably about 3% a year.

>> What's the reason for that increase?

>> So we're not exactly sure, but one of the areas of concern clearly over the last few decades has been lifestyle. As we've learned over the decades that enjoying the outdoors, and exercising, and staying fit is important for health, which it clearly is, there are other unintended consequences, if you will, at some times, like overexposure to the ultraviolet radiation from the sun. And we also know that indoor tanning is a big risk factor too.

>> So you've been quite involved in prevention strategies regarding ultraviolet light exposure. Can you tell us a little bit about what's going on?

>> Sure. Back about 4, 5 years ago when, here at MD Anderson, we had an opportunity to converge our thoughts across clinical disciplines and think about, what are the unmet needs, one of the things that we realized is that we had a lot of the information really at our hands and risks of melanoma and skin cancer, and we recognized that we actually had some tools to prevent it as well. So knowing that overexposure from the sun or any use of indoor tanning, regardless of the number of times -- and we know that the more times, the higher the risk -- we were able to come together as a group of clinicians and researchers, basic scientists, advocates, patients sharing their journey, and our government relations team and other stakeholders. And we shared these lessons learned. We shared the data with stakeholders. And we actually met with our state representatives and recognized that there was an opportunity here to protect the health of our youth, just like kids need to wear seat belts and can't drink alcohol. And why not be protected from the health dangers of overexposure to the sun? And so with those forces together, the Texas legislature was the fourth state in the country to pass indoor tanning legislation that would ban minors from indoor tanning. Since that time -- that was back in 2013 -- two states previously had been in that space at the end of 2012, and fast forward to 2017, now a third of the country, 17 states plus the District of Columbia, have banned indoor tanning.

>> Fantastic progress. What would your advice be to our listeners regarding how they should manage their sun exposure?

>> So I think you need to respect the sun. For those of you who live in Texas and in the South, the sun is part of our daily culture, and there are many health benefits to being outside, but protect yourself. So try to minimize the midday exposure -- you know, generally from 10 a.m. to 4 p.m. Use a broad-spectrum sunscreen. Reapply it regularly, particularly if you're swimming or perspiring quite a bit. Wear a wide-brimmed hat. Wear sunglasses. Protect your skin, and try to think about activities that don't require sun exposure in the midday, so when you have lunch, try to seek some shade.

>> So in addition to preventing exposure to sun, finding skin cancers early is important. Is that correct? The earlier you find them, the better you can deal with them?

>> For sure. And early detection from the standpoint of an individual at risk includes both melanoma and non-melanoma skin cancer. Interestingly, non-melanoma skin cancer -- and many of you may have heard of basal cell or squamous cell cancers -- arise from cells in the skin that don't give rise to melanoma but are much, much more common. Fortunately, they're readily treatable, often treatable locally, but we also know that melanoma, while in advanced stages, can be quite challenging to treat. Early detection is associated with a really favorable prognosis and outcome. And so for those patients who ultimately develop melanoma, early diagnosis can, is very associated with better outcomes.

>> So part of the challenge of accurately identifying early-stage melanomas I guess is knowing what you're looking at. And there's been some recent advances that you've written about in this space using technology. Can you tell us a little bit about what's going on?

>> Sure. So, you know, one of the big challenges is it's hard to know exactly what a suspicious lesion looks like, and so experience matters. And so, while expert dermatologists can use not only physical exam and their own expertise, they can use additional tools -- one called dermoscopy, which is a camera-like device that helps to enhance the image of a suspicious mole or nevus. But moving beyond that, since most people who are diagnosed with melanoma don't have the luxury necessarily of even being consulted by an expert dermatologist if they live in rural communities where physicians may be few and far between, technology may be an answer. And so, in a really interesting set of studies out of Stanford, a group of computer experts actually used advanced computer algorithms to examine over 100,000 images from the skin, many of which were melanoma tumors, and were able to refine their ability to identify melanoma, sort of the needle in the haystack, if you will, as well as expert dermatologists when ultimately compared head to head. And so if this technology can be accelerated and really perfected so we know exactly how to use it and how individuals who might be exposed to this kind of technology can actually get care, then we might be able to really make a dent in improving diagnosis for those who are not close to experts.

>> Sounds like a great advance. Finally, can you tell us a little bit about what's going on in the new therapy development for melanoma? What are you most excited about in that area?

>> So really, tremendously exciting and unprecedented times in the treatment arena for melanoma. What we've learned over the last several years is that there are particular genetic changes or mutations in tumors that help to drive the underlying machinery to, if you will, create an on switch for melanoma in about half the patients with the disease. And we've also learned that the immune system has an

important role. And both of these features, understanding the genetic changes as well as understanding the immune system, have leveraged this into a really, a new, therapeutic armamentarium of treatment options for patients with melanoma.

>> Dr. Gershenwald, thank you very much for sharing your knowledge with our listeners.

>> Thanks for having me.

>> For more information, visit [MDAnderson.org](http://MDAnderson.org). Thank you for listening to Cancer Newsline. Tune in for the next episode in our series.

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