

Yale CANCER
CENTER

answers

WNPR Connecticut Public Radio



Hosts

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Skin Cancer Awareness 2008

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Yale Cancer Center Answers

is a weekly broadcast on

WNPR Connecticut Public Radio

Sunday Evenings at 6:00 PM

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Welcome to Yale Cancer Center Answers with Drs Ed Chu and Ken Miller. I am Bruce Barber. Dr. Chu is Deputy Director and Chief of Medical Oncology at Yale Cancer Center and Dr. Miller is a Medical Oncologist specializing in pain and palliative care, and he also serves as Director of the Connecticut Challenge Survivorship Clinic. If you would like to join the discussion you can contact the doctors directly. The address is canceranswers@yale.edu and the phone number is 1-888-234-4YCC. This evening Ed Chu welcomes Dr. David Leffell. Dr. Leffell is a Professor of Dermatology and Surgery, Deputy Dean of the Yale School of Medicine and CEO of Yale Medical Group. He joins us in recognition of Skin Cancer Awareness Month.

- Chu Why don't we go ahead and start off with, what is skin cancer?
- Leffell Skin cancer is the most common malignancy in humans. When people think about skin cancer, they typically think of different types of growths that occur on the skin. There are 3 types of skin cancer that we concern ourselves with. One is basal cell cancer, which is a malignancy or a cancerous tumor that arises from cells in the top layer of the skin. The second is squamous cell cancer that also arises from the top layer of the skin. The third type of skin cancer is called melanoma, melanoma is a subject unto itself, and it is a cancer that arises in the skin from pigment cells called melanocytes.
- Chu Are there differences between these different types of skin cancers in terms of overall severity and prognosis?
- Leffell There is indeed. Basal cell cancer and squamous cell cancer are lumped together as nonmelanoma skin cancer. Then of course there is melanoma which we will talk about as well. Nonmelanoma skin cancer, fortunately, is easy to treat and in most cases readily cured. The most common indication that a person has a nonmelanoma skin cancer brewing is a sore that does not heal or a spot that bleeds or changes.
- Chu Typically, where would these kinds of sores or lesions first be noticed?
- Leffell Well one way to help you narrow down the self-monitoring of your skin is to realize that the majority of nonmelanoma skin cancers, namely basal cell cancer and squamous cell cancer, occur on sun-exposed skin. What I mean by that is the face, the backs of the hands, legs for people that work outdoors, shoulders, and even the scalp, certainly in bald men, but we see a fair number of skin cancers in women as well. These are the areas that get the most ultraviolet radiation, which is the radiation that comes from the sun. We know, from research done at the Yale Cancer Center, how ultraviolet radiation actually stimulates both the beginning and production of skin cancer itself.
- Chu One question David, which I always hear from neighbors and friends, already

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dark tanned individuals, is, are they at an increased risk for developing skin cancer, or does that increased pigment seem to protect them from the UV rays?

Leffell That is one of the most common questions that I get as well. Everyone is looking for some reason why they do not have to protect themselves against the sun, and in fact, the answer is not a simple one. People that have darker natural pigmentation, the people that are of Mediterranean origin, African-Americans and Asians, certainly have some natural sun protection that more fair-skinned individuals from Northern Europe lack. Having said that, here in Southern Connecticut it is not unusual to see skin cancer in people that are from Italy, for example, and come in not only heavily tanned, but have natural pigmentation. They are confused and bewildered about why they have a skin cancer because they always thought growing up that their natural pigmentation protected them. In fact, natural pigmentation provides some SPF or sun protection factor, but it is all relative. You can spend all your time out at the beach, or God forbid going to a tanning parlor, and get enough ultraviolet radiation that your natural protection is overwhelmed.

Chu Is it the length of time that one is exposed to sun or the intensity of that exposure?

Leffell Researchers have spent a great deal of time trying to tease out the answer there, and there is a lot of conflicting data. Some of the facts that I think listeners might be able to latch on to in a useful fashion include the following: The vast majority of skin exposure, we believe, occurs more or less by age 18. The implication there is that careful sun protection in childhood can protect you later in life. The occurrence of a single blistering sunburn, in other words, one bad episode in childhood, appears to double your risk of melanoma later in life. There is also evidence, for example, that it is a slow accumulation of sun exposure that may be responsible for basal cell cancer and squamous cell cancer. Anecdotally, we see people in June at the Yale Medical Group and examine them and do their full body skin exams, which we can talk about later, and they go off, enjoy the summer, golfing, boating, tennis, and they come back in September and we can usually tell who has been diligent about sun protection and who has not. Even the sun exposure during the summer itself in an unprotected fashion seems to turn on some component of that cancerous process in the skin.

Chu Now a question for you, is there such thing as a good tan?

Leffell If you are asking a question in an aesthetic sense, listeners will have to decide whether they think George Hamilton is attractive. If you are asking the question about whether a tan can be good medically, in other words, provide protection or pretreat, if you are college student getting ready to go down south on spring break, the answer is no. The tan response is a response to injury. When you cut yourself, your body mounts a very complex repair process. No one would say

that a scar is necessarily attractive, but it is the body's response to an injury and similarly, the pigmentation increase that results from ultraviolet exposure results from that injury and the body is trying to protect itself. Almost in a literal sense, the body is running for cover.

Chu What recommendations can you give to our listeners with respect to the use of tanning salons?

Leffell The ultimate consideration is that listeners increasingly understand, and if listeners are finding the things that I am saying nothing new, then we have achieved our goal. Sadly, I find that whenever we communicate about sun protection, there is always a group of listeners that hear it in new light and a light bulb goes on and they say "Aha!" The use of tanning parlors is one of those issues that get that "Aha!" response. The public tends to think that the ultraviolet light in tanning parlors somehow is special and not as damaging, but I have to tell you, ultraviolet light from artificial booths is every bit as damaging as natural ultraviolet radiation from the sun. There are some regulations enforced in Connecticut now, but dermatologists will be much happier with stronger regulations limiting the access of tanning booths and making sure that the consumer is aware of the cancer causing risk that they are exposing themselves to while using tanning parlors.

Chu It is quite remarkable. At the gym, that I try to get to on a frequent basis, you see all these young kids going into the tanning booths, which are there along with the fitness equipment. For them it is actually a big thing, it's a big deal to have a nice bronze tan.

Leffell Life is full of paradoxes. On the one hand, people are in the gym making sure that their cardiovascular system is in great shape, that their muscles are bulky, and that they appear attractive, but the paradox is that while pursuing that type of appearance, they are actually harming themselves in the not too distant future. For example, those of us who specialize in skin cancer recognize an increasing number of young people, primarily young women in their 20s, that come in with basal cell cancer and squamous cell cancer. When I was going to medical school and was in residency more than 20 years ago, it was virtually unheard of to see a person in that age group coming in with skin cancer. Now, sadly, it seems much more common. When you ask these 20 something women if they have ever used the tanning parlor, in my experience, the answer is almost universally yes. We have animal experiments, epidemiologic experiments, where we look at populations. We have test tube experiences and data, but our observation about what is happening to young people who use tanning parlors is most poignant. Coming back to the original question about why young people do this, there are so many alternatives to having that bronze tan that are much safer, such as the

spray-on tans which now have quite a natural appearance and they actually fool me on a regular basis. I find myself berating patient's with a tan only to have them roll up their sleeve and show me that it is an artificial tan. People really need to realize that whether it is a spray-on tan in the shopping mall or the home application, they are generally safe and if they help you avoid a tanning parlor, then you will be in good shape.

Chu That is terrific advice. Just to review with our listeners, what is the typical age group that you see skin cancer? You mentioned you are seeing it more frequently in younger age groups, but what is the typical age distribution?

Leffell Data for basal cell cancer and squamous cell cancer, unlike data from melanoma, is not tracked as well, but it is generally the case that skin cancer occurs in the 50s, 60s and beyond, but again, those of us who specialize in skin cancer are seeing it more frequently in people in their 30s and 40s, and even earlier, people in their 20s. Just because you are of a particular age, do not think that you are immune. The most common thing that happens is that people see a lesion or a growth on their nose, their ear, their cheek or above their lip, and they let it go because basal cell cancer has a sneaky tendency to heal up and then breakout again. One of the cardinal signs is a sore that heals up and comes back. You have to have that checked out and on the one hand, it is important to be suspicious, but you do not want to be overly paranoid. You do not want to be neglectful because skin cancer that is diagnosed in the early stage is very treatable.

Chu Is there any difference in terms of incidence between males and females?

Leffell It used to be that males had more skin cancer than females, but we are seeing it even out. There are many factors for that, lifestyle, social behavior, clothing, and whole range of things, but the incidence, based on our experience, is evening out.

Chu We would like to remind you to e-mail your questions to canceranswers@yale.edu or call 1-888-234-4YCC. At this time we are going to take a short break for medical minute. Please stay tuned to learn more information about skin cancer with Dr. David Leffell.

Medical Minute

It is estimated that over 2 million men in the United States are currently living with prostate cancer. One in six American men will develop prostate cancer in the course of his lifetime, but major advances in the detection and treatment of prostate cancer have dramatically decreased the number of men who die from this disease. Screening for prostate cancer can be performed quickly and easily in a physician's office using 2 simple tests; physical exam and a blood test. Clinical trials are currently underway at federally designated comprehensive cancer centers like the one at Yale to test innovative new treatments for prostate cancer.

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The patient's enrolled in these trials are given access to experimental medicines not yet approved by the Food and Drug Administration. This has been a medical minute. You will find more information at www.yalecancercenter.org. You are listening to the WNPR Health Forum from Connecticut public radio.

Chu Welcome back to Yale Cancer Center Answers. This is Dr. Chu and I am here in the studio this evening with our special guest expert, Dr. David Leffell, talking about skin cancer, the issues of prevention, treatment and detection, in recognition of May being Skin Cancer Awareness Month. Before the break we were talking about the incidences of skin cancer and what to look for. For those who may not have heard, could you review the tell-tale signs that you typically tell people to watch out for, and might make one suspicious of skin cancer being present?

Leffell There are 2 categories for signs, one relates to melanoma and the other relates to nonmelanoma skin cancer; basal cell cancer and squamous cell cancer. With respect to nonmelanoma skin cancer, the things you want to be alert of include sores that heal up only to come back again, or a sore that bleeds. Sometimes patient's will say that they got tired of seeing blood spots on their pillow. Sometimes the lesions can be quite small. There is a type of skin cancer, basal cell cancer, which is very hard to diagnose because it does not look like much. Often it looks like an old scar and that is called an infiltrative basal cell cancer and eventually, that too, will heal up and may start to bleed or breakdown. The other type of thing people have to be aware of is that people with fair skin, blue or green eyes, or light colored hair, those are all independent risk factors for an increased occurrence of skin cancer. Squamous cell cancer, which is cousin to basal cell cancer, can appear as a rough red patch or bump on the skin. It tends not to bleed but rather continues to grow and has a rough texture to it, it can bleed though. Any growth on a sun-exposed area, or any growth for that matter, that strikes you as concerning should be checked out, and we can talk about what that means in a moment.

When it comes to melanoma, which of course is a more concerning skin cancer because it can metastasize if not diagnosed and treated promptly and it can lead to death sadly, you want to look for any mole that has changed in color, size or symmetry. If it looks like it has become irregular, if it itches or bleed, those are later signs, but probably the most important sign to watch for in many cases is whether the patient has noticed a change. I have found that patients come in and get a full skin exam, and even if I do not identify anything of great concern, they ask me to look at something they've noticed. I have a rule that I teach the residents at the Yale Cancer Center, if the patient demonstrates a concern, even if they are not sure why, it comes off. More than once this has proved to be the right thing. You have to remember, the doctor is only seeing you for that snapshot in time in the office, and you know your body the best, almost, as I like to say, like the back of your hand. It is important if you are concerned about a spot to insist

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that it be biopsied and if the doctor does not want to biopsy it, it is not unreasonable to find another physician who will.

Chu David, if someone is concerned about a suspicious looking lesion, should they seek consult from a dermatologist? Who should the first line of defense be?

Leffell The question about what type of physician to see really depends on the expertise. There are many primary care doctors who have been trained in identifying lesions of concern, and throughout Connecticut, there are primary care doctors who do biopsies. Dermatologists of course are specially trained in skin cancer diagnosis and treatment and spend their full residency becoming familiar with the whole range of diseases related to skin cancer. It is relatively easy in Connecticut to find a dermatologist, but be guided by your primary care doctor. I guess the message is, when in doubt, check it out.

Chu And follow-up on the process once it is checked out. Once a biopsy is done of the lesion, what happens next?

Leffell The biopsy itself bears some discussion because for some people the thought of having a biopsy is sufficient to scare them off. Denial and fear are 2 human emotions, very human emotions, which keep people from getting into the doctor and getting things checked out that need to be evaluated. What I am going to tell you now is information that will make you very comfortable about the idea of having a biopsy, it is no big deal. The site is numbed up with a little bit of lidocaine in the office and then the specimen is either shaved off or punched off very quickly and you go home with a Band-Aid. Some doctors might put a little stitch in, but by and large, it is a very simple, straight forward procedure that, when it comes to melanoma, can be life saving.

Chu Once the diagnosis of say, non-melanoma skin cancer is made, what are the different treatment options?

Leffell There are several options and they depend on the location of skin cancer, what it looks like under the microscope, and what techniques are available to the dermatologist or other physician. The simplest type of skin cancer, superficial basal cancer, can actually be scraped off in the office; however, other skin cancers, basal cell cancer and squamous cell cancers that occur on the face, near the eye, in the central facial region, on the ear, any difficult to treat area, any skin cancer that is recurrent, any skin cancer that poses a treatment challenge, would best be treated, in my opinion, by the Mohs microscopic surgery technique. This is an office-based technique performed by specially trained physicians who have done a fellowship in this technique where the skin cancer is removed with as little tissue as possible, so that we preserve as much of the important facial skin, or other, as possible. It is mapped and immediately tested under the microscope.

The Mohs surgeon then goes back and removes additional skin as needed until the cancer is completely removed. This technique has two real advantages. One, there is very high cure rate, probably the highest cure rate. Two, as little normal tissue is removed as possible so one gets the optimum cosmetic result. Now, remember, Mohs Surgery technique is very specialized and is not needed for every skin cancer, in fact, I would say the majority of skin cancers are easily treated by a doctor in the office using the scraping technique or the traditional surgical method where it is numbed up, excised and stitched up. However, in certain very specific conditions, which you can discuss with your doctor, a consultation with someone specializing in Mohs Surgery may be indicated.

Chu Once surgical removal has been done, is there anything else that needs to be recommended to the patient, or just close follow-up at that point?

Leffell Close follow-up is important, not so much to monitor that particular skin cancer, but to monitor for the risk of others. For example, if you have had a basal cell cancer on your face, you have a 40% chance of getting another one somewhere else on the face within 5 years. I recommend that people that have had a skin cancer, or are at high risk for skin cancer, should have a full body skin exam once a year, head to toe. Also, once a year at least, they should be evaluated by their dermatologist or other physician with respect to their sun-exposed areas. The other thing that I neglected to mention with respect to treatment is that depending on the skin cancer, there are some nonsurgical approaches. One of them is the use of Aldara, a brand name for a drug called imiquimod, which is a remarkable compound. It was originally designed as a cream to treat warts. In fact, it works so well with skin cancer that over the past several years it has been approved for that purpose. You should not use it yourself, it is prescription item and it needs to be administered under the direction of your doctor, but that can be quite effective. Just yesterday I had a patient with a relatively large skin cancer on his forehead and because of the nature of it under the microscope and other factors, I have decided to treat him with this cream and he is getting a very good response and the odds are he is not going to even need surgery for this. The other thing that listeners will hear about is something called photodynamic therapy. Photodynamic therapy has been around for a long time in different manifestations. Basically, in photodynamic therapy, a solution is applied to the skin and one waits an hour or two hours, and in some cases much longer, and it then gets activated by the application of light. At the Yale Cancer Center we use a laser light to stimulate the solution, which then actually destroys the cancer cells. This is also a non-surgical approach and it tends to be effective in certain specific precancerous situations.

Chu That is fascinating. Are there any approaches that can be used to prevent the recurrence of additional basal squamous cell cancers?

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- Leffell The single most important strategy to prevent the development of additional skin cancers is sun protection. When we talk about sun protection, we are not talking about crawling under a rock, we are not talking about changing your lifestyle so dramatically that you do not enjoy living anymore. What we are talking about is a commonsense approach to minimize the amount of ultraviolet radiation exposure that you get. You have to remember that ultraviolet radiation is an EPA (Environmental Protection Agency) designated carcinogen. It is important to make sure that you minimize your exposure to it and do it in the following ways: Between 10 and 4, avoid direct sunlight as much as possible. If you would like to walk or bike, do it before 10 or after 4; Wear sunscreen on a regular basis with a sun protection factor of 30 or higher. That sunscreen should be labeled as broad spectrum, meaning that is providing protection against both ultraviolet B rays and ultraviolet A rays; Wear a brimmed hat. I cannot tell you the number of patients that come in with a baseball cap that they have worn their whole life presenting with a skin cancer on their ear. The reality is that a baseball cap does not provide as much protection as a brimmed hat with a 2-inch brim, and the market has responded. There are stylish hats now, and the patients that have found the right one for them are providing additional protection against the sun in that fashion.
- Chu This is very helpful advice and just to reiterate, when I go to the drugstore and look at the sun-blocking agents, you have got 10, 15, 30, 50, so again your recommendation would be anything 30 and above. What does that number actually mean?
- Leffell It is very important to take a minute to understand this in order to be an educated consumer in this regard because there is a very wide area of products and it can really be paralyzing when you find yourself standing there trying to figure out what you should buy, so I am going to give you some tips.
- Chu Terrific.
- Leffell Sun protection factor (SPF) is an indication of how much that particular product protects you from ultraviolet B or burning rays. If the sun protection factor is 15 and you normally burn after 20 minutes in the sun, theoretically, an SPF of 15 will allow you to be out in the sun 15 x 20 or 300 minutes before you burn. In fact, it is largely theoretical because it depends on so many other factors, but it is a rough guide. At an SPF of 30, you are blocking out about 96% of the ultraviolet B rays, so it is not necessarily true that the higher the number the more proportional protection you are getting, in fact, it is not true at all. With respect to ultraviolet A rays, it is important to make sure that your product has at least one of the following ingredients. Avobenzone, also known as Parasol 1789, is the only FDA approved UVA protectant in sunscreen. The other ingredient that provides a full block is zinc oxide, and there are many formulations now that have

zinc oxide included in a very effective fashion and do not make you have a white clown face. Titanium dioxide also provides some broad-spectrum protection. So, those are the ingredients that you want to look for if you find yourself paralyzed in front of the sunscreen aisle.

Chu That is really terrific advice for our listeners out there. It is amazing how quickly the time has gone by. Unfortunately, we did not really get a chance to talk about all the great research that is going on, but hopefully, on a future show, we will be able to focus in a little more on the research. On behalf of the Yale Cancer Center, thank you so much for joining us this evening for the show.

Leffell Thank you for having me.

Chu Until next week this, is Dr. Ed Chu from the Yale Cancer Center wishing you a safe and healthy week.

If you have questions, comments, or would like to subscribe to our podcast, go to www.yalecancercenter.org where you will also find transcripts of past broadcasts in written form. Next week, we'll learn about cancers of the head and neck.