

Melanoma & Mohs

Dr. Todd E. Schlesinger

■ This month, I would like to relate a personal story to you about a patient. The person I am referring to is somewhat of a celebrity in Charleston, having worked and lived in the area for much of his adult life. As an old school Charlestonian, he had received an invitation to my office for an Open House event. During attendance, he won a hair removal package and we chuckled as he commented he had always wanted to have the hair on his back removed. As a matter of course, I saw him during his first visit and noted that it seemed from the look of his skin that he had spent a lot of time out in the sun. He told me he likes to spend his leisure time out on the water on various boat trips and that he is an avid sailor. Shortly thereafter, we began his treatments for laser hair removal and planned a time for a complete body check for a subsequent visit. Well, as it turns out, this exam could not be done soon enough. During his skin exam, Becky, our PA, noted an unusual looking dark spot on his back that happened to be in the hair removal treatment area.

Not surprising given his amount of time spent in the sun, that spot turned out to be a melanoma, the deadliest of all skin cancers. Fortunately for him, the melanoma was relatively early in its development and it was safely and completely removed in our office and the patient is doing fine.

Melanoma is responsible for 73 percent of skin cancer deaths and one person dies of melanoma every hour in the United States. In fact, 8,110 people were expected to die from melanoma in 2007. Melanoma is expected to occur more than 110,000 times in 2008. Melanoma is detected early in 83 percent of cases, but 17% of cases are not. That translates to 20,000 cases per year. If detected early enough, melanoma is completely curable. At the Free Skin

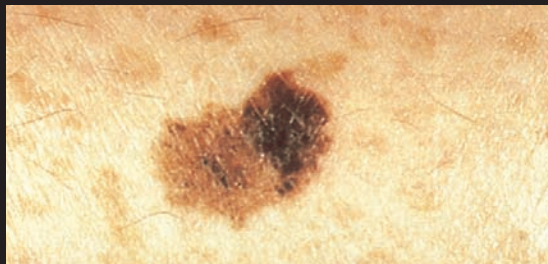
Cancer Screening we participated in last May with Roper St. Francis Healthcare, a team of local board-certified dermatologists and our staff detected seven melanomas in two hours while examining 175 – 200 people. You can help reduce your risk of melanoma by observing some specific signs on your skin.

Examine your body about once a month using two mirrors to see each part. Look for moles that are suspicious by using the ABCDE criteria.

ABCDE Criteria

- A=Asymmetry with respect to the borders from one side of the mole to the other. If you cannot draw a line through the middle of the mole where both halves look alike, the mole is asymmetrical.
- B=Border Irregularity with respect to the jaggedness of the borders or if the color at the border is not uniform.
- C=Color as in multiple colors in one mole. If a mole has more than one color such as tan, brown, red, black or blue, then it is suspicious.
- D=Diameter in which the mole may be larger than 6mm or the size of a pencil eraser. However, many moles that turn out to be melanoma were smaller than this size so size may not matter as much as was once thought.
- E= Evolution and may be the most important factor. Evolution means change and if a mole is changing, it is suspicious. Benign moles tend to stay one shape, size and color. Cancerous moles change and may start out from a benign mole.

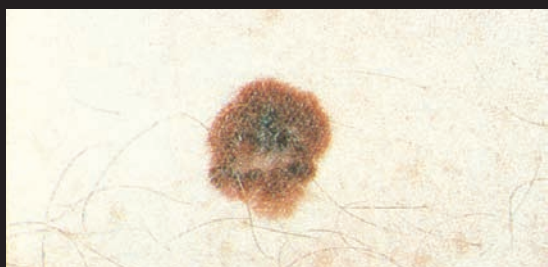
What to look for.



ASYMMETRY
- one half unlike the other half



BORDER
- irregular, scalloped or poorly circumscribed border.



COLOR
- varied from one area to another; shades of tan and brown, black; sometimes white, red or blue.



DIAMETER
- while melanomas are usually greater than 6mm in diameter (the size of a pencil eraser) when diagnosed, they can be smaller. If you notice a mole different from others, or which changes, itches, or bleeds (even if it is small) you should see a dermatologist.

One of the most important things you can do besides this self-skin examination is to have a complete body examination by a board-certified dermatologist. During this exam, your dermatologist may use a small hand-held lighted scope called a dermatoscope. Proper equipment is important, because when properly used by a trained dermatologist, the dermatoscope raises the chances that he or she will recognize a cancerous mole at its earliest stages.

Based on your history, a complete skin examination should be done every 3 months to one year. Everyone should come yearly, but for those with a personal or family history of skin cancer or excessive sun exposure more frequent examinations are suggested. You can help prevent melanoma by following a few simple steps:

- Generously apply sunscreen to all exposed skin using a Sun Protection Factor (SPF) of at least 15 that provides broad-spectrum protection from both ultraviolet A (UVA) and ultraviolet B (UVB) rays. Re-apply every two hours, even on cloudy days, and after swimming or sweating. For optimum results, look for sunscreen that lists the ingredients zinc oxide, titanium dioxide, avobenzone or Mexoryl. Usually, a combination of these ingredients will produce the best protection. Zinc oxide should be at a minimum concentration of 5-10% and titanium dioxide should be at least 5%.
- Wear protective clothing, such as a long-sleeved shirt, pants, a wide-brimmed hat and sunglasses, when possible.
- Seek shade when appropriate, remembering that the sun's rays are strongest between 10 a.m. and 4 p.m.
- Use extra caution near water, snow and sand as they reflect the damaging rays of the sun which can increase your chance of sunburn.
- Protect children from sun exposure by applying sunscreen often and liberally.
- Get Vitamin D safely through a healthy diet that includes vitamin supplements. Don't seek the sun.
- Avoid tanning beds. Ultraviolet light from the sun and tanning beds causes skin cancer and wrinkling. If you want to look like you've been in the sun, consider using a sunless self-tanning product, but continue to use sunscreen with it.

For the two other most common types of skin cancer, basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) there is a successful treatment I would like to share with you. These two types of skin cancer occur more than a million times a year and more than 400,000 times a year respectively in the United States and present most commonly as a bleeding sore, an enlarging

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bump, an enlarging red patch or a crusted red area on the skin. Often they can be the size of a pea to the naked eye but can have grown much larger beneath the outer skin layer. They are caused by exposure to ultraviolet light obtained from the sun and other ways. These cancers can sometimes spread, but usually get bigger causing damage to surrounding normal skin, muscles, nerves, blood vessels and bones.

One way to remove them is to simply cut them out, or excise them, by cutting out a football-shaped piece of skin that includes the skin cancer and some surrounding normal skin for safety. This method works well for areas of the body such as the arms, back and legs that have extra skin available. For areas that do not have extra skin, this way does not work as well. BCC and SCC have “roots”. As you can see in Figure 1, standard excision and standard tissue processing can miss some roots, causing the cancer to come back later.

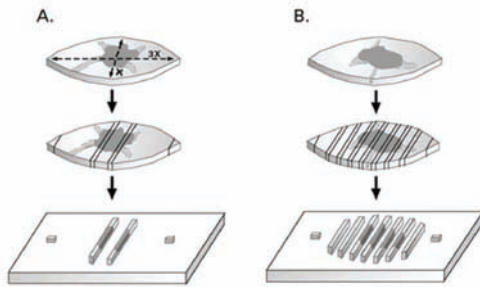


Figure 1: Method of Standard Excision Showing Possible Missed Tumor “Roots”

When BCC and SCC occur on the face, ears, hands, feet, genitals or neck where there is not much extra skin, the options are more limited. Since there is less extra skin available, the goal is to preserve as much as possible. With Mohs Micrographic Surgery, the smallest amount of normal skin is removed while removing all the cancer in the most accurate way. Mohs Surgery was named after a University of Wisconsin professor who discovered the method in the 1940’s. Extensive revamping of the original procedure in the 1960’s and 1970’s resulted in the method we use today. Using Mohs, the cure rate is in the 99% range and the chance of the cancer ever coming back to the same spot is less than one percent.

The reason the Mohs procedure works so well lies in its method. In Mohs, the surgeon conservatively removes the cancerous tissue with a small amount of surrounding normal skin. The tissue is carefully mapped and hand-carried to an onsite lab where the tissue is stained and frozen and slides are made. The

Mohs surgeon, who is proficient and experienced to both make the excision and to serve as the reading pathologist, reads the slides while you wait and will tell you if all the cancer was removed in the initial stage. If not, an additional layer will be taken from the area surrounding any remaining tumor as seen on the slides and marked on the map. This process is repeated in stages until all the cancer is removed. The removal is done in such a way that all of the edges of the excised skin tissue are examined. The process is illustrated in Figure 2. Typically, Mohs surgery can take longer than a standard excision, sometimes all day, but when your procedure is done, you know the cancer is out. Your surgeon will discuss with you the options for repairing whatever area was left from the cancer removal as several options may exist.

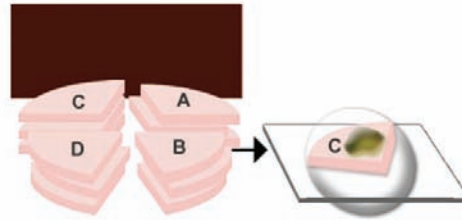


Figure 2: Method of Mohs Surgery Showing 100% of Tissue Margin Examined so “Roots” are not missed

Mohs surgery is most preferred for difficult, aggressive skin cancers as well as cancers in the locations described above because the method of removal is so precise and accurate. It has become the standard-of-care for these types of tumors and studies have shown it to be cost-effective when used properly. When choosing a physician to perform your Mohs Surgery, remember to put your skin in the hands of a board certified dermatologist with specialized training in Mohs Surgery.

By the way, that patient mentioned in the first paragraph was our own Willie Schwenzfier, MD, a prominent local ear, nose, and throat surgeon. Dr. Schwenzfier has had a full recovery of his melanoma excision and continues to enjoy sailing the waters but uses great sun sense in his outdoor activities.



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