

# The FotoFinder® Dermoscope at Plastic Surgery Associates of Tidewater

## Sophisticated Detection System May Help Improve Melanoma Survival

By Alex Strauss

**A**lthough it accounts for fewer than 5 percent of skin cancers, melanoma causes the majority of skin cancer deaths, killing more than 8500 people in the U.S. last year. One in eight people diagnosed with melanoma will die of it. But despite these sobering statistics, most cases of melanoma are survivable if the tell-tale signs can be spotted early enough.

“Even if you are at high risk for melanoma, or have had melanoma before, you do not have to die of it,” asserts board-certified plastic surgeon J. Craig Merrell, MD, FACS. “But detecting and surviving melanoma requires vigilance and regular, high quality surveillance.”

At Plastic Surgery Associates of Tidewater, that surveillance is improved by advanced technology that allows Dr. Merrell to locate and monitor potentially cancerous changes in the skin, including those that are nearly impossible to notice with the naked eye. The FotoFinder® dermoscope system combines the power of high resolution digital images, dermoscopy, and sophisticated computer software to ‘map’ and analyze moles throughout the body. The FotoFinder® subjects the images to complex computer analysis, and allows them to be easily compared from one visit to the next.

*“Men and women should be taking a careful look at their moles once a month, but you can’t see what’s on your back. We find patients every week who have melanomas or pre-melanomas that they didn’t even know they had.”*

“The difficult thing about melanoma is that, sometimes, changes can be so slow or so subtle that they are virtually undetectable to the patient or to the patient’s spouse,” warns Dr. Merrell. “Unless you have some sort of record of them, there is no way to track moles long term. With the FotoFinder®, we now have an ideal way to photograph and closely monitor the skin for even the most subtle changes.”

Fair-skinned individuals who tend to have moles, especially abnormal moles known as dysplastic nevi, are at higher lifetime



risk for melanoma. Exposure to the sun's UV rays raises that risk. People who chose to tan may also increase their risk of all types of skin cancers.

For high risk patients in particular, the FotoFinder® can be used to take a series of photographs of the body. Moles in these photographs are identified, numbered, and catalogued. Each mole can then be photographed at 20X – 70X magnification, and evaluated.

Dr. Merrell explains the process. “When the patient comes back in six months after the initial exam, we then take another set of high powered photos. I can compare the most recent photos and the first set of photos side-by-side. With that capability, and the computer analysis made possible by the FotoFinder®, even small changes can be picked up right away.”

In addition to side-by-side views, the FotoFinder® software can also produce photo overlays, placing a transparent view of the newer photo on top of the earlier photo for easier comparison. The FotoFinder® system is even equipped with simple laser technology to help position the patient for photographs, ensuring that subsequent sets of images will match the first set.

“Right now, I have one patient with 100 suspicious moles that we are following,” says Dr. Merrell, who has been using the FotoFinder® system since 2008. “Without the FotoFinder®, it would be impossible to do this as effectively and efficiently. When comparing new photos to old, the computer actually circles moles that have changed and brings them to my attention. Our overall approach to monitoring moles can, on the one hand, help a patient avoid unnecessary surgery. On the other hand, you can pick up incredibly small changes that may necessitate surgical removal of a changing mole.”

The FotoFinder® can be a valuable screening tool, even for patients who may not be at high risk for melanoma or are unaware of their risk. After Dr. Merrell's physical examination of moles under 4X loupe magnification, the machine's sophisticated algorithm subjects each mole tested to analysis according to the American Cancer Society's 'ABCDE's' of melanoma skin cancer.

“The FotoFinder® is programmed to recognize the same warning signs that doctors and patients should be on the lookout for: (A) asymmetry, (B) irregular borders, (C) mottled coloration, (D) larger diameter and (E) elevation or evolution over time,” says Dr. Merrell, whose own father had melanoma. Dr. Merrell himself has had pre-melanomas removed and follows his moles with the FotoFinder® system.

“Men and women should be taking a careful look at their moles once a month, but you can't see what's on your back. We find patients every week who have melanomas or pre-melanomas that they didn't even know they had.” For patients with suspicious moles, Dr. Merrell recommends surgical excision, rather than scraping or burning, to fully remove the

◀ **Dr. Merrell demonstrates use of the FotoFinder® system - This mole shows disturbing changes from October 2008 (left on computer screen) to March 2010 (right). The mole was safely removed and showed pre-melanoma on biopsy.**



**A tiny mole (1/16th of an inch) was digitally recorded and catalogued (mole #16) as part of the patient's annual FotoFinder® Total Body Photography**



**Fig. A**



**Fig. B**

**Fig A: Close up of mole as it appeared when initially evaluated with 20 X dermoscopy. Analysis showed a low Tübinger Score**

**Fig B: Because the patient noticed a change, the same mole was rechecked just five months later. The Tübinger Score had increased significantly. The mole was removed and histology showed a Severe Pre-Melanoma**

suspicious lesion. All moles removed are examined by a Board Certified Pathologist.

Patients who have had melanoma are reevaluated in Dr. Merrell's office with the FotoFinder® every three months for the first two years, and every six months after that for the rest of their lives. The system has found second and in some cases third melanomas at a very early stage, giving Dr. Merrell the opportunity to remove it and dramatically improve the patient's odds of survival.

“It is important to note that the FotoFinder® does not have an MD degree,” says Dr. Merrell. “It is not a substitute for a doctor's exam, and the final decision to remove a mole is based on more than 25 years experience caring for patients with all types of skin cancers. But the FotoFinder® is clearly the most sophisticated new tool available for detecting abnormal changes in moles earlier than ever. Anyone with concerns about their moles should consider this important diagnostic tool.”

For more information, or to schedule an appointment, please call Plastic Surgery Associates of Tidewater, 757-673-6000. Or visit their website: [www.plasticsurgeonforyou.com](http://www.plasticsurgeonforyou.com)