

Specialized Photography Promotes Sun Safety in Colorado

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“Within seconds of the camera taking two pictures, people can see how much damage the sun has done to their skin. Damage that you can’t see with the naked eye.”

Neil Box

Summary

Thanks to the collaborative effort of the Colorado Skin Cancer Task Force (CSCTF) and the Colorado Melanoma Foundation, cross-polarized light (CPL) photography is making its way across the state, revealing sun damage that cannot be seen with the naked eye. This appearance-based intervention is part of a multi-component community-wide skin cancer prevention effort and is proving to be promising for promoting sun safe behaviors. Combined with sun-safety education, CPL photography increases understanding of cumulative sun damage and the associated risks for developing skin cancer.

Challenge

Colorado skin cancer burden is greater than the national average due to high altitude, active lifestyles and abundant sunshine. Over-exposure to ultraviolet (UV) radiation from the sun or from tanning beds increases risk of developing skin cancer. In 2016, 1,460 Coloradans will be diagnosed with Melanoma, the deadliest form of skin cancer¹. In the United States, it is estimated that one in five people will develop skin cancer in their lifetimes.² The annual national cost for treating skin cancers in the U.S. is \$4.8 billion for non-melanoma skin cancers and \$3.3 billion for melanoma.³

Thirty-seven percent of Colorado adults reported having sunburn in 2014 and 46 percent of Colorado parents reported their child had sunburn in 2012. The visible signs of cumulative sun damage often remain invisible until adulthood. Measures to prevent skin cancer include adequate use of sunscreen and sun-protective clothing, seeking shade and avoidance of tanning beds. Continued education on sun safety is necessary to address the burden of skin cancer in Colorado.

1. Cancer Facts and Figures 2016. American Cancer Society. <http://www.cancer.org/acs/groups/content/@research/documents/document/acspc-047079.pdf>.
2. Stern RS. Prevalence of a history of skin cancer in 2007: results of an incidence-based model. *Arch Dermatol.* 2010 Mar;146(3):279-82.
3. Guy GP, Machlin S, Ekwueme DU, Yabroff KR. Prevalence and costs of skin cancer treatment in the US, 2002–2006 and 2007–2011. *Am J Prev Med.* In press 2014.

Solution

Cross-polarized light photography reveals sun damage that cannot be seen with the naked eye. This appearance-based intervention is part of a multi-component community-wide skin cancer prevention effort led by the Colorado Skin Cancer Task Force (CSCTF) in association with the Colorado Melanoma Foundation and is proving to be promising for promoting sun safe behaviors. The portable CPL camera is easily transported to events across Colorado and produces startling images of underlying sun damage on the face. The powerful images spark interest in how to prevent further sun damage. CSCTF members use the CPL image as a conversation starter and an opportunity to provide sun-safety education, distribute sunscreen and, when dermatologists are available, perform skin checks.

Your Involvement is Key

Skin cancer is highly preventable in your community. Appearance-based interventions are powerful tools to ignite positive change. Portable CPL cameras can be used at a variety of community events to promote sun protective behavior. Consider using these tools in your local community to start the discussion on sun safety and engage community members in spreading awareness of skin cancer prevention.

Results

Requests for interactive sun safety education at community events, walks, fundraisers, recreational centers, schools and parks has greatly increased since obtaining the portable CPL imaging device. The CSCTF attends an average of one event per month and captures 40 to 50 images per event with a total of 535 images captured in the first year. Most requests are during the winter and summer, when many Coloradans engage in outdoor activities. The team expects to increase their presence at community events as they expand their volunteer network within Colorado.

The images are powerful and motivating. Participants often ask questions, express their intentions to improve sun safety behaviors and encourage other participants to have their photographs taken. Combined with sun-safety education, the CPL photography increases understanding of cumulative sun damage and the associated risks for developing skin cancer.

Sustainable Success

Requests for the portable CPL camera at local events are growing. While the cameras are simple and easy to use, staffing is required at the events. Personnel must capture photographs and effectively educate participants on skin cancer prevention. The next steps entail are to build a larger network of volunteers by collaborating with the Colorado Cancer Coalition, schools of public health, students in health care fields and other community members. The CSCTF plans to build ties with a larger number of sunscreen distributors, as well as sun-protective clothing and hat manufacturers, so that they can provide these items and encourage their use at events. Lastly, they aim to create a standardized evidence-based educational tool for use at events.

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