

Even young teens show signs of sun damage: study

April 13 2012, By Alan Mozes, HealthDay Reporter

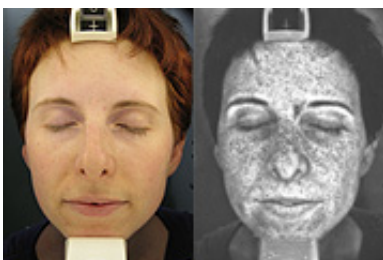


Photo on right shows UV damage.
Images: R. Dellavalle

Researchers also found results of special photos lined up with other skin cancer risk factors.

(HealthDay) -- In a new study that used a special type of photography to unveil hidden signs of sun damage, middle schoolers showed evidence of levels of UV exposure that could raise their risk for melanoma later in life.

Not only can the technology spot who is most vulnerable to the ravages of too much time spent tanning, the researchers noted, but it could also be used as a powerful deterrent to teenagers who think basking in [UV rays](#) is a healthy habit.

"There's two issues here," explained study co-author Dr. Robert Dellavalle, from the University of Colorado Cancer Center in Denver. "One is that there's nothing better for keeping teenagers out of the

tanning booth than showing these pics. What we didn't know before was if these ugly pics were just ugly pics that scare people, or if they actually correlated with [skin cancer](#). Now we've found that they do. When you have lots of moles, have blue eyes or are a redhead -- all things we know are associated with greater melanoma risk -- you have uglier UV photos," he said.

"And another surprising thing," Dellavalle added, "is that at age 12 and 13 we're already seeing a lot of [sun damage](#). And because seeing this damage in UV photo form is sort of like meeting your inner zombie, this could be a great tool in getting kids to think about [sun safety](#) in a more personal way."

Dr. Ryan Gamble, who conducted the study while a postdoctoral researcher in Dellavalle's lab and who is now a dermatology resident at the university, and colleagues released their findings online in advance of publication in an upcoming print issue of the [Journal of the American Academy of Dermatology](#).

Gamble pointed out that one in 50 Americans will face a melanoma diagnosis in their lifetime.

UV photography makes visible so-called "mottled pigmentation," dark spots and freckling that indicate sun damage that is otherwise invisible to the naked eye.

The authors noted that the technology has already been used to focus attention on sun safety and the dangers of overexposure among college students and middle schoolers.

However, only one small study of just eight children has explored how the sun damage revealed in such photos correlates with known risk factors (having fair skin, blue eyes, red hair, and/or visible facial

freckling) for melanoma.

In this latest study, the researchers focused on 585 boys and girls who were born in 1998, and were 11 or 12 at the study's start. Almost 80 percent were non-Hispanic white youths.

The faces of all the children were photographed with eyes closed and without sunscreen, make-up or moisturizer in three formats: standard photography; so-called cross-polarized photography (using filters to block unwanted light reflection); and UV photography.

At the same time, full-body skin exams were conducted by a team comprised of a dermatologist, pediatrician, medical student and pediatric nurse. Eye color was noted, alongside indications of freckling, and skin and hair color assessments.

The results: sun damage severity revealed in the UV photographs was found to line up very closely with factors that have long been linked to a higher melanoma risk.

In other words, boys and girls who had light-colored skin, blue eyes, red hair, and/or freckles did indeed show more skin damage on the UV photographs than those who did not.

This, the researchers said, means that UV photography does not lie: the more damage the technology highlights, the greater the cancer risk.

"We hope that our research will help make the use of these photographs more mainstream, whether in a clinic setting or as a public health intervention," said Gamble. "With greater awareness of [melanoma](#) and increased use of sun prevention and early detection strategies, much of the occurrence of the disease and its complications can be prevented."

Dr. David Leffell, a professor of dermatology and otolaryngology and plastic surgery at the Yale School of Medicine, said that if it were priced right, the technology could indeed help "lead to a recognition that sun protection is important." Currently, such systems cost about \$20,000.

"It is true that the appearance of sun-damaged skin in these images is frightening, and patient response is often shock," Leffell noted. "The pediatric population of course is especially important to communicate this message to, and the photographs -- if the price can be brought down -- is a good idea."

But, for the time being, price remains an issue, said Dr. David Pariser, past president of the American Academy of Dermatology Association and a professor of dermatology at Eastern Virginia Medical School in Norfolk, Va.

"It's not an inexpensive modality. So, I'm not sure about the practicality of rolling this out as a screening tool," Pariser said.

"I've used UV photography myself during clinical research, and it certainly is a very dramatic way to show sun damage," Pariser added. "It's sort of like looking at yourself 15 or 20 years later. In fact, I've never had anyone who's seen a photograph of himself who's not reacted by saying they will stop exposing themselves to the harmful effects of the sun."

More information: For more on melanoma, visit the [U.S. National Library of Medicine](#).

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Citation: Even young teens show signs of sun damage: study (2012, April 13) retrieved 18 May

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