Inherited Melanoma Risk: What You Do Know Does Help You

*Study shows people obey screening recommendations better after genetic testing—whether or not they test positive*

June 17, 2008, Salt Lake City—When people know the results of genetic tests confirming they have inherited an increased risk of developing melanoma, they follow skin cancer screening recommendations more proactively—much like those who have already been diagnosed with the potentially deadly disease, according to results of a study completed at the University of Utah’s Huntsman Cancer Institute and published in the June issue of *Cancer Epidemiology, Biomarkers & Prevention*.

Tests for mutations in the *CDKN2A* gene can reveal a reason that melanomas “run” in families. The study evaluated the intent to follow, and the actual practice of, skin cancer early detection methods by members of families that carry *CDKN2A* gene mutations. Study participants were drawn from a group of Utahns who participated in the original “*CDKN2A* gene hunt” 10 to 12 years ago. They already knew that their family history might put them at increased risk for melanoma, and they had previously received melanoma prevention and screening education.

The results showed that people who tested positive for the *CDKN2A* mutation followed melanoma screening recommendations more carefully than before, even if they had not had a melanoma. In addition, knowing the test results did not lead family members without the mutation to decrease their screening measures.
“Before these studies, it was unclear whether reporting the results to family members who have been tested was valuable or potentially harmful to patients,” said co-principal investigator Sancy Leachman, MD, PhD, director of the Tom C. Mathews Jr. Familial Melanoma Research Clinic (FMRC) and associate professor in the Department of Dermatology at the University of Utah School of Medicine. Leachman specializes in melanoma genetics.

Lisa Aspinwall, PhD, associate professor in the University of Utah Department of Psychology, is co-principal investigator on the studies. “We wanted to know whether learning their results helps people comply better with melanoma screening recommendations. We also wanted to know if people who find out that they are negative for the mutation decrease their efforts as a result of knowing their genetic status.”

“People with a family history of melanoma who do not carry the mutation are still at almost twice the risk of developing melanoma as people in the general population,” Leachman said.

Melanoma is the most serious type of skin cancer. The National Cancer Institute estimates that more than 62,000 people will be diagnosed with the disease in 2008, and more than 8,000 will die of it. Cancer experts estimate that about ten percent of melanomas are associated with familial or inherited syndromes.

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