

Tell Us Something New: Redheads Have Higher Risk of Melanoma

Amy Capetta July 14, 2016



Brace yourself because this news may sting...

According to researchers from the United Kingdom, gene variants that are found in people with red hair, fair skin, and freckles are linked to a higher number of genetic mutations (a permanent alteration that differs from what is found in most people) in skin cancers.

And that wasn't the only troublesome finding: These investigators also stated that having this certain type of DNA is comparable to spending an average of an extra 21 years in the sun.

Ouch.

This data, which was published in the journal [Nature Communications](#), further explained that a single copy of this gene — melanocortin 1 receptor, or MC1R — increases the number of mutations in melanoma, which numerous non-red-headed people possess. In short, just about everyone needs to be superconcerned about sun exposure and skin cancer.

Cancer of the skin is the most common of all cancers, and the rates of melanoma have been rising for the last 30 years, says the [American Cancer Society](#). It estimates that 76,380 new melanomas will be diagnosed this year, while 10,130 people are expected to die of this disease in 2016.

“It has been known for a while that a person with red hair has an increased likelihood of developing skin cancer, but this is the first time that the gene has been proven to be associated with skin cancers with more mutations,” stated co-study author Dr. David Adams in a [press release](#) from the Wellcome Trust Sanger Institute.

“Many people have been studying the redheads because we know they have a higher risk of skin cancer and we want to understand why,” [Delphine Lee, MD](#), dermatologist and director of the Dirks/Dougherty Laboratory for Cancer Research and Department of Translational Immunology at John Wayne Cancer Institute at Providence Saint John’s Health Center in Santa Monica, CA, tells Yahoo Beauty.

She explains that a strand of DNA has four nucleic acid bases, known as ACGT. “When there are two Ts next to each other, they link together, and they’re not supposed to be linked together, so that causes damage.”

The body will try to repair the damage by rearranging the sequence so the two Ts are no longer attached. “But when the body repairs it incorrectly — our bodies aren’t perfect and sometimes they make a mistake—it stimulates a new mutation, and now it’s not the sequence it was before.”

Along with redheads, **Lee** adds, the individuals who need to be the most diligent about sun protection include those people “with fair, fair skin, people who never tan and easily burn, people with blue or green eyes, and/or those who have freckles that tend to be more orange than brown.”

So aside from freaking out, how are people supposed to respond to this latest information? “An ounce of prevention is worth a pound of cure,” states **Lee**. Since exposure to ultraviolet (UV) radiation is the leading cause of melanoma, she strongly advises to avoid these harmful rays as much as possible. For example, stay out of tanning beds; sit under an umbrella at the beach; wear a broad brim hat while sitting on the beach, at a lake, or poolside; wear long-sleeved tops and long pants while exercising outdoors; and remain indoors during peak sun-exposure hours (10 a.m. until 2 p.m.) “because that is when the UV rays are the strongest.”

When in doubt of the safe and not-so-safe moments to spend time in Mother Nature, **Lee** suggests taking the “shadow test.”

“The shorter your shadow, then the more UV light you are getting,” she explains. “Think about it — at high noon, you have no shadow. If your shadow is shorter than you are, stay inside, because that is when the sun is the strongest. But if your shadow is longer than you are tall, then the sun is in a place where it’s lower.”

And then there’s sunscreen. “Most people aren’t using it correctly!” she states. Sunscreens with broad spectrum protection (against both UVA and UVB rays) and with sun protection factor (SPF) values of 30 or higher are recommended, according to the [American Cancer Society](#). “You need to apply one ounce, which is the size of one shot glass, each time,” stresses Lee. “One bottle of sunscreen is usually eight ounces, which means you should only get eight applications out of that bottle.”

So if you’re spending the day at the beach (about eight hours), you should be using half the bottle (one ounce per application while re-applying every two hours) during that single outing. “In other words, if you go the beach *all day* twice, it’s time to buy more sunscreen.”

<https://www.yahoo.com/beauty/tell-us-something-new-redheads-have-higher-risk-150935362.html>