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Melanoma Risk Factors & Ways to Lower the Risk

Melanoma is now occurring in about one in fifty (2%) Caucasians. It is much less common in people with darkly pigmented skin. There are a number of factors that may increase and decrease your melanoma risk:

- 1) Genetic Factors: **Fair skin** is determined genetically. Fair skinned individuals are at greater risk of developing sunburns and a history of **blistering sunburns** during childhood has been shown to increase the risk of melanoma. Genes that predispose to melanoma can be passed from parent to child.
- 2) A **family history of melanoma**, particularly when several close family members in two or more generations have had melanoma.
- 3) Having **greater than 50 moles** on your body has been associated with a higher risk of melanoma. Having **atypical moles** (dysplastic nevi) also increases your risk of melanoma.
- 4) Exposure Factors: **Sun exposure** and **tanning bed exposure** are major risk factors for developing melanoma and other skin cancers. Women under 30 years old who have used tanning beds have a roughly six times greater risk of getting melanoma. Exposure to **arsenic** (used in pesticides and sometimes present in well water) is a risk factor, as is exposure to **coal tar and pitch** (used in asphalt and roofing materials) and **creosote** (a wood preservative).
- 5) Environmental factors: People who live closer to the **equator** and (or) at **high altitudes** get exposed to more intense sunlight and are at higher risk of melanoma.
- 6) **Weak immune system** that occurs in some medical conditions and can occur from **medication effects** and aging. People who have received an **organ transplant** are at higher risk of melanoma and other skin cancers because of this, and they should have regular skin exams.
- 7) **Age**: Older individuals are at greater risk, in part because of having had more lifetime sun exposure and a weaker immune system compared to younger people.
- 8) **History of having had other types of skin cancers** makes you at greater risk of getting melanoma.
- 9) Consuming **white wine** may be a risk factor. Each glass of white wine per day was associated with a 13% increased risk of melanoma. So drinking 2 glasses of white wine daily would increase the risk by 26%.
- 10) A study found that consuming **citrus fruit or juice** 1 to 2 times daily had a 36 percent higher risk of melanoma than those who consumed it less than two times a week. The significance of these findings are uncertain. However, it seems advisable for people who consume a lot of citrus fruit products to avoid prolonged sun exposure, as a chemical in citrus fruits can increase sensitivity to sunlight.

Things that might lower your risk of melanoma - based on what we now know

- 1) **Do not sunbathe or use tanning beds.**
- 2) **Take sun protective measures.** (See handout on sun protection at www.rutlandskin.com)
- 3) **Daily aspirin** was shown to be associated with a 30% less likelihood of developing melanoma in a study on middle-aged women. **However, another study indicated that daily aspirin in men might nearly double their risk of melanoma.** More work needs to be done to explain these contradictory results. (See page 2.)
- 4) There is some evidence that maintaining an adequate **vitamin D** blood level may help prevent melanoma. Vitamin D levels often fall below recommended levels during the cold winter months.
- 5) **Caffeinated coffee** consumption has been associated with a lower risk of melanoma.
- 6) **Avoid drinking white wine and take extra precautionary sun protective measures with citrus fruit consumption.**
- 7) And remember to do **monthly self skin exams** in hopes of detecting a melanoma early before it gets to the life-threatening stage. People at higher risk should see a dermatologist regularly.



Aspirin and Melanoma Risk?

Daily aspirin use has been associated with a nearly double increased risk of developing melanoma in men. However, another study found that daily aspirin use was associated with a 30% reduced risk of melanoma in women. More work needs to be done to explain these contradictory findings.



A study reported in the Journal of the American Academy of Dermatology found that men (but not women) who take aspirin daily (for a year or more) may have an increased risk of melanoma. This does not necessarily mean that aspirin causes the increased risk of melanoma. What the study means is that there is an association of daily aspirin use and melanoma. Higher doses of aspirin were not associated with a higher risk of melanoma.

A previous study in middle aged women showed that daily aspirin was associated with a lower incidence of melanoma. Daily aspirin use has also been associated with a lower incidence of other cancers, including colon cancer. So what accounts for this discrepancy? At this time we don't know the answer to this question.

However, there were some limitations to the study in men. These limitations included the inability to verify patient adherence with a daily aspirin regimen and the diagnostic codes that were assigned. In addition, other risk factors for malignant melanoma, including sun exposure and skin pigment type, were not considered. Strengths included the large study population and the multiyear follow up. The researchers concluded that in view of the potential clinical impact reported in this study, further investigation into the link between chronic, once-daily aspirin use and malignant melanoma is warranted.

The potential health benefits of aspirin use should be weighed against this reported melanoma risk in men. More studies need to be done to verify or refute this risk. Men taking daily aspirin now have another reason to take daily sun protective measures and have periodic self-skin exams, and exams by a dermatologist, in an attempt to identify melanoma early while still in a curable state. Patients are advised to discuss their need for aspirin treatment with their health care providers

Reference

Orrell KA, et al. Malignant melanoma associated with chronic once daily aspirin exposure in males: a large, single-center, urban, U.S. patient population cohort study from the Research on Adverse Drug events And Reports (RADAR) project. J Am Acad Dermatol. 2018

Another study of middle-aged white women found that those taking aspirin daily (81mg or 325 mg) were up to 30% less likely to develop melanoma. The longer they took the aspirin, the lower the risk. Previous studies have found that aspirin was associated with a lower risk of breast cancer and GI cancers including stomach and colon cancer.

Reference

Gamba C, et al. Aspirin is associated with lower melanoma risk among postmenopausal Caucasian women: the Women's Health Initiative. Cancer. 2013