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[Skin Cancer \(Non-Melanoma\) - Risk Factors and Prevention \[1\]](#)

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ON THIS PAGE: You will find out more about the factors that increase the chance of developing this type of cancer. To see other pages, use the menu on the side of your screen.

A risk factor is anything that increases a person's chance of developing cancer. Although risk factors can influence the development of cancer, most do not directly cause cancer. Some people with several risk factors never develop cancer, while others with no known risk factors do. However, knowing your risk factors and talking about them with your doctor may help you make more informed lifestyle and health care choices.

The following factors may raise a person's risk of developing skin cancer:

- **Sun exposure.** Exposure to ultraviolet (UV) radiation from the sun plays a major role in the development of skin cancer. People who live at high altitudes or in areas with bright sunlight year-round have a higher risk of developing skin cancer, as do those who spend a lot of time outside during the midday hours.

Exposure to ultraviolet B (UVB) radiation appears to be more closely linked with skin cancer, but newer research suggests that ultraviolet A (UVA) may also play a role in the development of basal cell carcinoma, squamous cell carcinoma, and [melanoma \[3\]](#). Whereas UVB radiation causes sunburn and does not penetrate through car windows or other types of glass, UVA is able to pass through glass and may cause aging and wrinkling of the skin in addition to skin cancer. Therefore, it is important to protect your skin from

both UVA and UVB radiation (see Prevention below).

- **Artificial tanning.** People who use tanning beds, tanning parlors, or sun lamps have an increased risk of developing all types of skin cancer. Recreational sun tanning should also be avoided to reduce the risk of skin cancer.
- **Fair skin.** People with a fair complexion, blond or red hair, blue eyes, and freckles are at increased risk for developing skin cancer, as are people whose skin has a tendency to burn rather than tan.
- **Precancerous skin conditions.** Rough, red or brown scaly patches on the skin, called actinic keratoses and Bowen's disease, are usually more common in areas exposed to the sun. These areas can change into squamous cell cancers in a small minority of people. The more actinic keratoses a person has, the higher the risk that they will develop into a squamous cell carcinoma. Using a broad-spectrum sunscreen throughout the year that protects against both UVA and UVB radiation and has a sun protection factor (SPF) of at least 30 helps decrease the risk of developing actinic keratoses. See the Prevention section below for more information about protecting your skin from the sun.
- **Gender.** The number of older white men and younger women who have developed skin cancer in recent years has increased.
- **Age.** Most basal cell and squamous cell carcinomas typically appear after age 50. However, in recent years, the number of skin cancers in people age 65 and older has increased dramatically. Younger people can also develop non-melanoma skin cancer, especially if they have an inherited (genetic) syndrome that puts them at high risk, fair skin, or been exposed to significant amounts of radiation or UV radiation from the sun.
- **A history of sunburns or fragile skin.** Skin that has been burned, sunburned, or injured from disease has a higher risk of skin cancer. Squamous cell and basal cell carcinoma occur more often in people with higher lifetime exposure to the sun or other sources of UV radiation.
- **Previous skin cancer.** People who have had any form of skin cancer have a higher risk of developing another skin cancer. Thirty-five percent (35%) to 50% of people diagnosed with one basal cell carcinoma will develop a new skin cancer within five years. Therefore, people who have had one skin cancer need ongoing, follow-up care to watch for additional cancers. See the [Follow-Up Care](#) [4] section for more information.

- **Inherited syndromes.** Certain rare genetic conditions are associated with an increased risk of developing basal cell carcinoma. These conditions include [nevoid basal cell carcinoma syndrome](#) [5], which is also called Gorlin's syndrome, and the very rare Rombo, Bazex-Dupré-Christol, epidermolysis bullosa simplex, and Dowling-Meara syndromes, among others. Rare syndromes associated with an increased risk of squamous cell carcinoma include [xeroderma pigmentosum](#) [6], albinism, epidermolysis bullosa simplex, dyskeratosis congenita, and multiple self-healing squamous epitheliomata.
- **Weakened or suppressed immune system.** People with weakened immune systems due to a stem cell transplant or diseases such as HIV/AIDS and certain types of leukemia have a higher risk of developing skin cancer, particularly squamous cell carcinoma. The same is true for people taking immunosuppressive drugs.
- **Medications.** In addition to medications that suppress the immune system, certain steroids and medications that make the skin very sensitive to sunburns, such as vandetanib (Caprelsa), vemurafenib (Zelboraf), and voriconazole (Vfend), have all been shown to increase a person's risk of developing squamous cell carcinoma.
- **Previous treatment with radiation therapy.** When a person receives radiation therapy as a cancer treatment, he or she has a higher risk of developing basal cell carcinoma. This risk increases over time, especially after 10 to 20 years. As a result, children who receive radiation therapy have a six times higher risk for developing a basal cell carcinoma.
- **Human papillomavirus (HPV).** Research indicates that infection with this virus is a risk factor for squamous cell carcinoma, particularly if the person's immune system becomes suppressed. HPV is most commonly passed from person to person during sexual activity. There are different types, or strains, of HPV. Some strains are more strongly linked with certain types of cancers.

Prevention

Different factors cause different types of cancer. Researchers continue to look into what factors cause this type of cancer. Although there is no proven way to completely prevent this disease, you may be able to lower your risk. Talk with your doctor for more information about your personal risk of cancer.

Reducing exposure to UV radiation, particularly by reducing sun exposure, lowers the risk of developing skin cancer significantly. This is important for people of all ages and is especially important for people who have other risk factors for basal cell and squamous cell carcinoma (see above).

Sun damage builds up over time, so it is important to take the following steps to reduce sun exposure and avoid sunburn:

- Limit or avoid direct exposure to the sun between 10:00 AM and 4:00 PM.
- Wear sun-protective clothing, including a wide-brimmed hat that shades the face, neck, and ears. Clothes made from fabric labeled with UV protection factor (UPF) may provide better protection. UV-protective sunglasses are also recommended.
- Use a broad spectrum sunscreen throughout the year that protects against both UVA and UVB radiation and has a sun protection factor (SPF) of at least 30. Reapply at least one ounce of sunscreen to your entire body every two hours or every hour after heavy perspiration or being in the water.
- Avoid recreational sunbathing and do not use sun lamps, tanning beds, or tanning salons.
- Examine the skin regularly. This should include examinations by a health care professional, as well as self-examinations. Learn more about [how to do a self-examination](#) [7].

Learn more about [protecting your skin from the sun](#) [8] in this additional article on Cancer.Net.

Limiting your sun exposure may reduce your body's production of vitamin D, although some research suggests less than 15 minutes of sunlight exposure may be enough for most people to produce an adequate amount of vitamin D. People with limited sun exposure should talk with their doctor about how to include good sources of vitamin D in their diet, including the use of supplements. Your levels of vitamin D can be checked through a simple blood test by your doctor.

The [next section in this guide is Screening](#) [7], and it describes the early warning signs of skin cancer and how to perform a self-examination. Or, use the menu on the side of your screen to choose another section to continue reading this guide.

Links

[1] <http://www.cancer.net/cancer-types/skin-cancer-non-melanoma/risk-factors-and-prevention>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/31265>

[4] <http://www.cancer.net/node/19628>

[5] <http://www.cancer.net/node/19452>

[6] <http://www.cancer.net/node/19727>

[7] <http://www.cancer.net/node/33641>

[8] <http://www.cancer.net/node/24659>