

Nonmelanoma Skin Cancer (NMSC)

Jennifer Turnham, BS and Kesha Buster, MD

Skin cancer is the most common malignancy in the United States and represents approximately 35-45% of all cancers in Caucasians, 4-5% in Hispanics, and 1-4% in Asians, Asian Indians and African-Americans.¹⁻³ Although skin cancer occurs less frequently in dark-skinned people, it is often associated with greater morbidity and mortality compared to light-skinned individuals.³⁻⁴ Therefore, it is important for people of all races to be aware of the risks of both melanoma--the most deadly type of skin cancer--and other more common types which are collectively termed non-melanoma skin cancer (NMSC). Squamous cell carcinoma (SCC) and basal cell carcinoma (BCC) are the two most common forms of NMSC.

SCC accounts for approximately 20% of all skin cancers⁵ and about 75% of all deaths due to skin cancer, excluding melanoma.⁶ It is the most common skin cancer in African-Americans and Asian Indians and the second most common skin cancer in Hispanics, Asians (Chinese and Japanese) and Caucasians.³ BCC is the most common skin cancer in Hispanics, Chinese and Japanese Asians, and Caucasians.³ Though BCC can be locally destructive, it rarely metastasizes.

What is the cause of NMSC?

NMSC has many causes. Ultraviolet (UV) radiation from sunlight, scarring processes, chronic injury, and depressed immune system (e.g., after organ transplantation) all contribute to the development of NMSC. UV radiation is the primary cause of both SCC and BCC in Caucasians, Hispanics, and Asians.³ However, the most important predisposing factors for the development of SCC in African-Americans are chronic scarring, trauma and inflammation (e.g., burns, nonhealing leg ulcers, skin lupus), not sun-exposure.⁷ Such SCCs are more likely to develop in areas of sun-protected skin.^{3, 7-8} The main risk factor for BCC in all races is UV radiation.⁸ Darker skin color does provide a protective effect, however, as BCC is more common in lighter skinned- vs. darker-skinned African-Americans.⁷

How do I know if I have NMSC?

NMSC can look many different ways. Both SCC and BCC may be without symptoms, or grow slowly over time with associated pain or spontaneous bleeding. In dark-skinned individuals, SCC tends to occur in non-sun-exposed skin such as the legs, anus, and genitals whereas in lighter-skinned people, sun-exposed skin is the most common site.⁸ BCCs most often occur on the head and neck regions in all races. These most commonly present as painless, shiny, solitary bumps. Like SCCs, these may have a tendency to easily bleed. In people of color, more than 50% of BCCs have pigment (dark color), as opposed to only 5% in

Caucasians.^{3,9} Any new lesion that bleeds, is painful, is growing, changing or is otherwise concerning to you should be evaluated by your dermatologist.

What are treatments for NMSC?

There are many treatment options for NMSC. The most appropriate form of treatment depends on the size of the tumor, location on the body, and other factors. Your dermatologist should help determine which treatment is right for you.

Mohs micrographic surgery (MMS) is especially useful in treating large tumors and those on certain areas of the face. This method allows surgeons to ensure that all malignant extensions of tumor are removed by mapping the edges of the excised tumor and analyzing it under the microscope.¹⁰

Excisional surgery remains the most common method for treating NMSC. It is effective in treating small, lower risk tumors.

Electrodessication and curettage (ED&C) is another widely accepted method of treating low risk NMSC below the neck. During this procedure, an electrical current is used to destroy tissue that is subsequently scraped off using a slim sharp instrument known as a curette. This method usually leaves a round scar.

Cryosurgery is another technique used in the treatment of NMSC. This technique uses liquid nitrogen to freeze the tumor tissue. After freezing, the area typically blisters before healing in three to four weeks.

Nonsurgical options In addition to surgical techniques, topical immunomodulators, such as imiquimod, have gained recent FDA approval for treatment of thin NMSC. These treat the skin cancer by boosting the local immune system to kill the tumor. Another option is photodynamic therapy (PDT), which is a combination of a topical chemotherapy and a specialized light. Additionally, 5-fluorouracil cream (a chemotherapeutic agent) can be used to treat NMSC. All topical options have the benefit of treating NMSC with less risk for scarring. However, unlike MMS, excision or ED&C, complete cure cannot be ascertained and topical agents cannot be used on large or deep tumors. Overall the cure rates are lower and recurrences more common than with surgical treatments.¹¹ Lastly, radiation is used on large or high risk tumors that cannot be completely treated with surgery.

Images

Additional Resources

The Skin Cancer Foundation: www.skincancer.org

American Cancer Society: www.cancer.org

References

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