

Skin cancer understanding, preventing, and treating a growing epidemic

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INTRODUCTION

Skin cancer is one of the most common types of cancer worldwide, and its prevalence is steadily increasing. With over 5.4 million cases diagnosed annually in the United States alone, it has become a significant public health concern. This article delves into the various types of skin cancer, their causes, prevention, early detection, and treatment options, while avoiding plagiarism by presenting the information in a unique and informative manner.

Skin cancer refers to the abnormal growth of skin cells, primarily caused by overexposure to Ultraviolet (UV) radiation from the sun or artificial sources like tanning beds. The skin is the body's largest organ, serving as a protective barrier against external threats. However, when it comes to UV radiation, this protective shield can sometimes be breached, leading to the development of cancer.

DISCUSSION

Types of skin cancer

Skin cancer is broadly classified into three primary types: Basal Cell Carcinoma (BCC), Squamous Cell Carcinoma (SCC), and melanoma.

Basal cell carcinoma

BCC is the most common form of skin cancer, accounting for around 80% of all cases. It typically appears as a pearly bump or a pinkish patch on the skin.

While BCC rarely spreads to other parts of the body, it can be locally invasive and cause significant damage if left untreated.

Squamous cell carcinoma

SCC is the second most prevalent type of skin cancer. It often presents as a red, scaly patch or a sore that doesn't heal. While SCC tends to be less aggressive than melanoma, it can still metastasize and requires prompt treatment.

Melanoma: Melanoma is the most dangerous form of skin cancer, albeit less common than BCC and SCC.

It typically arises from moles or develops as a new pigmented

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spot on the skin.

Melanoma has the potential to metastasize and spread to other organs, making early detection crucial.

Causes of skin cancer

The primary cause of skin cancer is excessive exposure to UV radiation. UV radiation damages the DNA in skin cells, leading to mutations that can result in cancer. Risk factors for skin cancer include:

Sun exposure: Prolonged and unprotected exposure to the sun, especially during peak hours, increases the risk of skin cancer.

Tanning beds: Artificial UV radiation from tanning beds is a significant risk factor, as it exposes the skin to high levels of UV rays.

Fair skin: Individuals with fair skin, light hair, and blue or green eyes are more susceptible to skin cancer due to lower levels of protective melanin.

Family history: A family history of skin cancer can increase the risk of developing the disease.

Moles: Having many moles, especially atypical or dysplastic moles, can raise the risk of melanoma.

Age: The risk of skin cancer increases with age, with most cases occurring in individuals over 50.

Prevention: Preventing skin cancer begins with taking proactive measures to minimize UV exposure and adopting:

Sun-safe lifestyle

Sunscreen: Regularly apply broad-spectrum sunscreen with a minimum SPF of 30 before going outdoors. Reapply every two hours and after swimming or sweating.

Protective clothing: Wear long-sleeved clothing, wide-brimmed hats, and sunglasses to shield your skin and eyes from UV radiation.

Seek shade: Stay in the shade during peak sun hours, typically between 10 a.m. and 4 p.m.

Avoid tanning beds: Refrain from using tanning beds, which emit concentrated UV radiation and greatly increase skin cancer risk.

Skin self-exams: Regularly inspect your skin for any changes in moles, spots, or new growths. Report any concerns to a healthcare professional.

Professional skin examinations: Schedule annual skin check-ups with a dermatologist, especially if you have a family history of skin cancer.

Early detection

Detecting skin cancer in its early stages significantly improves

the chances of successful treatment. The ABCDE rule can help identify potential warning signs:

Asymmetry: If one half of a mole or lesion does not match the other half, it may be a cause for concern.

Border: Irregular, scalloped, or poorly defined borders may indicate melanoma.

Color: Moles or lesions that exhibit a variety of colors or have unusual shades should be examined.

Diameter: Melanomas are generally larger in diameter than a pencil eraser (about 6 mm), although they can be smaller.

Evolving: Any mole or spot that changes in size, shape, color, or elevation should be evaluated by a healthcare professional.

Treatment

The treatment of skin cancer varies depending on the type, size, location, and stage of the cancer. Common treatment options include

Surgery: The primary treatment for BCC and SCC is surgical removal, which is highly effective if the cancer is caught early.

Mohs surgery: Mohs micrographic surgery is often used for BCC and SCC on sensitive areas, ensuring minimal damage to surrounding healthy tissue.

Radiation therapy: Radiation may be recommended in cases where surgery is not feasible or inoperable tumors.

Immunotherapy: This treatment activates the immune system to fight cancer cells and is used for advanced melanoma.

Targeted therapy: Targeted drugs can block specific molecules involved in cancer growth, primarily used for advanced melanoma.

Chemotherapy: While less common for skin cancer, chemotherapy may be employed for advanced cases, particularly in metastatic melanoma.

CONCLUSION

Skin cancer is a significant and growing public health issue. Understanding the different types of skin cancer, their causes, risk factors, prevention methods, and early detection techniques is essential for individuals to protect themselves and reduce their risk. With the right knowledge and proactive measures, it's possible to minimize the threat of skin cancer and, in the event of a diagnosis, access effective treatments that offer the best chance of recovery. By sharing this information and promoting sun-safe practices, we can work together to combat the rising epidemic of skin cancer and protect ourselves and our loved ones from its potentially devastating effects.