

# MELANOMA AT A GLANCE

## What is melanoma?

Melanoma is a form of skin cancer. Although it is the least common type, melanoma is the most serious form of the disease. Melanoma occurs in pigment-producing cells called melanocytes, which are located in the outermost layer of the skin (the epidermis). Melanoma begins when melanocytes become cancerous or malignant, and can occur on any skin surface. In men, it is often found on the trunk, or head and neck. In women, melanoma often develops on the lower legs.

## Who gets melanoma?

Although one of the most common cancers in young adults, melanoma increasingly affects people of all age groups, with the number of new cases of melanoma in the United States more than doubling in the past 20 years. The American Cancer Society estimates that in 2004, there will be 55,100 new cases of melanoma in the United States, and about 7,910 people will die of the disease. Although melanoma only accounts for about 4 percent of skin cancer cases, it causes about 79 percent of skin cancer deaths.

## What causes melanoma?

Exactly what causes melanoma skin cancer remains unknown but certain risk factors are known to be linked with the disease, such as moles (many and/or large in size), fair skin, family history and a compromised immune system. Mutations in the DNA – such as those inherited or acquired through UV exposure – can also significantly increase the risk of developing melanoma.

## How is melanoma evaluated?

Treatment and prognosis generally depend on the stage of cancer, which describes how far the cancer has spread.

- STAGE 0** The cancer is limited to the skin's epidermis, where melanocytes are located.
- STAGE I** The melanoma has spread to the second layer of skin (the dermis), but has not reached the lymph nodes. Tumors are less than 1.5 mm thick.
- STAGE II** The cancer has spread to the second layer of skin (the dermis), but has not reached the lymph nodes. Tumors are more than 1.5 mm thick.
- STAGE III** Melanoma has spread to lymph nodes near the affected skin area, but not to distant areas of the body.
- STAGE IV** The melanoma has spread to organs such as lungs, liver or brain, or to distant lymph nodes or areas of the skin.

## How is melanoma diagnosed?

If melanoma is suspected, a skin biopsy is performed: a sample from the suspicious skin area is obtained, then examined microscopically. In addition, nearby lymph nodes in the groin, underarm or neck areas may be examined to check for metastasis (spread of the cancer to other parts of the body). Melanoma that has metastasized may not be detectable until long after the original melanoma has been removed from the skin.

## Can melanoma be prevented?

The risk of melanoma can be lowered by decreasing exposure to UV light – whether from the sun or other sources such as tanning beds and sun lamps. When in the sun, sunscreen with a minimum of SPF 15 should be worn daily and frequently reapplied. It is also important to have skin examined regularly and have suspicious moles (those that have grown, become asymmetric, or exhibit a ragged border or uneven color) checked by a doctor.

## How is melanoma treated?

Surgery to remove the primary tumor is the standard treatment for melanoma. Although advanced melanoma usually does not respond well to most conventional systemic therapies, melanoma may also be treated with radiation therapy, chemotherapy, immunotherapy, or a combination of these methods. Radiation therapy and chemotherapy are more often used to relieve symptoms of advanced melanoma. Current immunotherapy for the treatment of advanced melanoma includes vaccine therapy and cytokine therapy (e.g., interferon alpha, interleukin 2) to activate the immune system.

### DID YOU KNOW?

Each year, about a million people in the United States learn that they have skin cancer.

Almost half of all Americans who live to age 65 will have skin cancer at least once.

Melanoma is one of the most common cancers in young adults.

The number of new cases of melanoma in the United States more than doubled in the past 20 years.

Melanoma accounts for 79 percent of skin cancer deaths.