Melanoma: The Basics

Melanoma is a type of skin cancer that starts in cells in your skin called melanocytes. These cells make melanin in your body. Melanin is a black or brown pigment (color) seen in the skin, hair, and parts of the eye. Melanoma can happen any place that melanocytes are found, including the skin (nail beds, soles of the feet, scalp), eyes, and mucous membranes that line the sinuses, gastrointestinal (GI) tract, and vagina.

Risk Factors

Ultraviolet (UV) radiation from the sun is the main cause of melanoma. Other risk factors are:

- Having fair skin.
- A history of peeling sunburns.
- Tanning bed use.
- Having moles.
- Being an older age.
- A history of non-melanoma skin cancer (either yourself or a family member).

Screening

The best screening test for melanoma is a full skin exam. During physicals, your provider may check your skin, but it is also important to check your own skin every so often. You will see any changes early if you do your own checks and if you know your own skin well. If you do see any changes, tell your provider.

Moles that cause concern are those that have “ABCDE” traits:

- **Asymmetry:** Refers to the shape of the mole. When one side of the mole is not the same as the other, it may be of concern.
- **Border Irregularity**: The borders (edges of the mole) should be well-defined. An irregular border is blurry or uneven.
- **Color**: If there are a few colors within a mole, or if the colors change, it could be a concern.
- **Diameter**: Any mole that is larger than the diameter of a pencil eraser may be concerning.
- **Evolution**: Any change in how the mole looks, its color, shape, or elevation (how far raised off the skin) over time should be tested.

Signs & Symptoms of Melanoma

Any mole or skin change with the “ABCDE” traits listed above may have signs of melanoma. More advanced cancers may be inflamed (hot and swollen), have oozing, crusting, ulcers (open areas), or bleeding. If a mole goes unfound, the first sign may be a symptom of spread (metastasis) to other organs.

Diagnosis of Melanoma

When your health care provider thinks you may have melanoma, a biopsy will be done. Excisional (the whole lesion is removed) or incisional (only part of the lesion) biopsy may be used. Both types of biopsies remove the

layers under the lesion to see how deep it is. A pathology report will be completed by a dermatopathologist and sent to your provider. A pathology report describes all the aspects of the melanoma, which helps decide your treatment. You can ask for a copy of your report for your records.

Staging Melanoma

The TNM system is used to stage melanoma:

- **T**- Describes where the tumor is. For melanoma, this shows:
  - How thick, or deep, the melanoma goes into the skin.
  - If the melanoma is ulcerated, meaning having open or broken skin on top of the tumor.
- **N**- Describes if the cancer has spread to the lymph nodes.
- **M**- Describes if the cancer has spread to other organs (metastases).

Staging ranges from I (limited disease) to IV (more advanced disease).

Treatment

Surgery is the first choice to treat melanoma. A “wide local” excision is done to remove the whole lesion and an area of normal tissue around the lesion. Terms you might hear include:

- **Margins:** The tissue around the melanoma lesion.
- **Negative Margins:** A small amount of normal tissue around the tumor was removed and it had no cancer cells.
- **Positive Margins:** Melanoma cells are found in the area of “normal tissue” that was removed. More surgery is needed to remove a bigger area of normal tissue.
- Another type of surgery used to treat melanoma is the MOHS procedure.

Other types of treatment include:

- **Chemotherapy** can be used to treat melanoma that can be seen on imaging studies or to prevent the cancer from coming back (recurrence).
- **Immunotherapy** are medications that rev up your immune system to attack cancer cells.
- **Targeted Therapy** uses medications that target something specific on the cancer cells. If the melanoma has either a BRAF or MEK mutation (a change in the cell), targeted therapy may be used.
- **Radiation Therapy** uses high energy x-rays to kill cancer cells.

This article is a basic introduction to melanoma. You can learn more about your type of melanoma and treatment by using the links below.

Melanoma Skin Cancer: Staging and Treatment

Surgical Procedure: Surgery and Staging for Malignant Melanoma of the Skin