**What Is Melanoma Skin Cancer?**

**Melanoma is a type of skin cancer that develops when melanocytes (the cells that give the skin its tan or brown color) start to grow out of control.**

**Cells in nearly any part of the body can become cancer, and can then spread to other areas of the body.**

**Melanoma is much less common than some other types of skin cancers. But melanoma is more dangerous because it’s much more likely to spread to other parts of the body if not caught and treated early.**

**TESTS AND PROCEDURES USED TO DIAGNOSE MELANOMA INCLUDE:**

**Physical exam-** Your doctor will ask questions about your health history and examine your skin to look for signs that may indicate melanoma.

**Removing a sample of tissue for testing (biopsy)**- To determine whether a suspicious skin lesion is melanoma, your doctor may recommend removing a sample of skin for testing. The sample is sent to a lab for examination.

What type of biopsy procedure your doctor recommends will depend on your particular situation. Most often doctors recommend removing the entire growth when possible. One common technique, the punch biopsy, is done with a circular blade that's pressed into the skin around the suspicious mole. Another technique, called an excisional biopsy, uses a scalpel to cut away the entire mole and a small margin of healthy tissue around it.

**DETERMING THE STAGE OF MELANOMA**

If you receive a diagnosis of melanoma, the next step is to determine the extent (stage) of the cancer. To assign a stage to your melanoma, your doctor will:

Determine the thickness. The thickness of a melanoma is determined by carefully examining the melanoma under a microscope and measuring it with a special tool. The thickness of a melanoma helps doctors decide on a treatment plan. In general, the thicker the tumor, the more serious the disease.

Thinner melanomas may only require surgery to remove the cancer and some normal tissue around it. If the melanoma is thicker, your doctor may recommend additional tests to see if the cancer has spread before determining your treatment options.

See if the melanoma has spread to the lymph nodes. If there's a risk that the cancer has spread to the lymph nodes, your doctor may recommend a procedure known as a sentinel node biopsy.

During a sentinel node biopsy, a dye is injected in the area where your melanoma was removed. The dye flows to the nearby lymph nodes. The first lymph nodes to take up the dye are removed and tested for cancer cells. If these first lymph nodes (sentinel lymph nodes) are cancer-free, there's a good chance that the melanoma has not spread beyond the area where it was first discovered.

Look for signs of cancer beyond the skin. For people with more-advanced melanomas, doctors may recommend imaging tests to look for signs that the cancer has spread to other areas of the body. Imaging tests may include X-rays, CT scans and positron emission tomography (PET) scans. These imaging tests generally aren't recommended for smaller melanomas with a lower risk of spreading beyond the skin.

Other factors may go into determining the risk that the cancer may spread (metastasize), including whether the skin over the area has formed an open sore (ulceration) and how many dividing cancer cells (mitoses) are found when looking under a microscope.

Melanoma is staged using the Roman numerals 0 through IV. At stage 0 and stage I, a melanoma is small and has a very successful treatment rate. But the higher the numeral, the lower the chances of a full recovery. By stage IV, the cancer has spread beyond your skin to other organs, such as your lungs or liver.

**TREATMENT**

The best treatment for your melanoma depends on the size and stage of cancer, your overall health, and your personal preferences.

**TREATMENT FOR SMALL MELANOMAS**

Treatment for early-stage melanomas usually includes surgery to remove the melanoma. A very thin melanoma may be removed entirely during the biopsy and require no further treatment. Otherwise, your surgeon will remove the cancer as well as a border of normal skin and a layer of tissue beneath the skin. For people with early-stage melanomas, this may be the only treatment needed.

**Treating melanomas that have spread beyond the skin**

If melanoma has spread beyond the skin, treatment options may include:

Surgery to remove affected lymph nodes. If melanoma has spread to nearby lymph nodes, your surgeon may remove the affected nodes. Additional treatments before or after surgery also may be recommended.

**Immunotherapy-** Immunotherapy is a drug treatment that helps your immune system to fight cancer. Your body's disease-fighting immune system might not attack cancer because the cancer cells produce proteins that help them hide from the immune system cells. Immunotherapy works by interfering with that process.

Immunotherapy is often recommended after surgery for melanoma that has spread to the lymph nodes or to other areas of the body. When melanoma can't be removed completely with surgery, immunotherapy treatments might be injected directly into the melanoma.

**Targeted therapy**- Targeted drug treatments focus on specific weaknesses present within cancer cells. By targeting these weaknesses, targeted drug treatments can cause cancer cells to die. Cells from your melanoma may be tested to see if targeted therapy is likely to be effective against your cancer.

For melanoma, targeted therapy might be recommended if the cancer has spread to your lymph nodes or to other areas of your body.

**Radiation therapy**- This treatment uses high-powered energy beams, such as X-rays and protons, to kill cancer cells. Radiation therapy may be directed to the lymph nodes if the melanoma has spread there. Radiation therapy can also be used to treat melanomas that can't be removed completely with surgery.

For melanoma that spreads to other areas of the body, radiation therapy can help relieve symptoms.

**Chemotherapy**-Chemotherapy uses drugs to kill cancer cells. Chemotherapy can be given intravenously, in pill form or both so that it travels throughout your body.

Chemotherapy can also be given in a vein in your arm or leg in a procedure called isolated limb perfusion. During this procedure, blood in your arm or leg isn't allowed to travel to other areas of your body for a short time so that the chemotherapy drugs travel directly to the area around the melanoma and don't affect other parts of your body.

**TOP TIPS FOR SUN SAFETY**

• Avoid the midday sun between 11am and 3pm.

• Don't be fooled by a cool breeze or light cloud: you can still get burnt.

• Cover up in the sun with loose cotton clothes, a wide brimmed hat and sunglasses with UV protection.

• Wear a sunscreen of at least sun protection factor (SPF) 14 and a four star UVA rating on the areas which cannot be covered.

• Protect yourself while swimming.

• Look out for the solar UV index on the TV weather forecasts.

• Children need extra protection.

• Avoids using artificial tanning equipment to get a tan.

**EARLY DETECTION SAVES LIVES**