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Melanoma is the most serious form of skin cancer. It begins in a type of skin cell called a melanocyte, which produces the skin coloring or protective pigment called melanin. Melanoma consists of melanocytes that have been transformed into cancer cells that grow abnormally.

Melanoma can spread if not detected at an early stage. Once melanoma cells reach vital internal organs and grow, they are more difficult to treat and are much less likely to be cured.

According to the American Cancer Society, about 76,000 new melanomas were expected to be diagnosed in the United States in 2014. About 9,700 people were expected to die of melanoma. The rates of melanoma have been rising for at least 30 years.

WHO IS AT RISK FOR MELANOMA?

Melanoma is more than 20 times more common in Caucasians than in African Americans. The risk of melanoma increases with age – the average age at the time it is found is 61. But melanoma is not uncommon even among those younger than 30. In fact, it is one of the most common cancers in young adults (especially young women).

The risk for each person can be affected by a number of different factors. You are most at risk for melanoma if you have:

- Been or are regularly exposed to large amounts of sunlight
- A personal or family history of melanoma
- Greater than 100 moles
- A fair complexion and light-colored eyes
- A compromised immune system
- A history of severe childhood sunburns
- Had any diagnosis of skin cancer – squamous cell or basal cell carcinoma
WHAT CAUSES MELANOMA?

Unprotected exposure to ultraviolet (UV) radiation from the sun and other sources, such as tanning beds, tanning booths and sunlamps, is the most important avoidable risk factor for melanoma.

Melanoma also may appear on skin that is not exposed to the sun. It is often linked to certain types of moles. These moles may turn into melanomas, or they may serve as markers which identify the individual at higher risk for melanoma developing elsewhere in the skin.

WHAT TO LOOK FOR

Melanoma can appear suddenly as a new mole, or it can develop slowly in or near an existing mole. Almost everyone has moles, and the vast majority of them are perfectly harmless. You should see a doctor if there is a change in a mole’s appearance or if it begins to itch, bleed or develop a crust or scab.

Use this simple ABCD rule to help you identify moles that you should show your doctor.

**A ASYMMETRY** – Melanoma lesions are typically irregular in shape. One half of the spot may not match the other half.

**B BORDER** – Normal moles are round or oval. The borders of a melanoma may be uneven or notched.

**C COLOR** – Common moles are usually one color throughout, while melanomas may have several colors or an irregular pattern of colors.

**D DIAMETER** – Melanomas are usually larger than a pencil eraser (¼-inch in diameter or 6 millimeters) but can be smaller when detected.
MELANOMA PREVENTION

- If you must be outdoors, seek shade between 10 a.m. and 4 p.m.
- Apply at least 30 SPF sunscreen every day.
- Make your own shade with a wide-brimmed hat and sunglasses.
- Apply 1 to 2 ounces of sunscreen (about the size of a ping-pong ball) to your entire body 30 minutes before going out in the sun and reapply every two hours.
- For your face, apply a dollop of sunscreen about the size of a silver dollar every day, no matter the weather.
- Avoid tanning beds, booths or sun lamps.
- Do monthly skin checks to look for new moles or moles that have changed in appearance.

SUN SAFETY PROGRAM

Each summer, Baptist Health Lexington partners with Lexington Parks & Recreation at local pools to provide sunscreen and educate adults and children about sun safety.

Baptist Health Lexington staff check pool patrons’ sunglasses for proper ultraviolet (UV) protection and test the UV index with special radar equipment. Patrons also receive UV bracelets that teach them when to apply sunscreen.

In 2014, the Sun Safety program reached 725 adults and children at four public pools throughout the city.
**TREATMENT OPTIONS FOR MELANOMA**

*Surgery is the main treatment option for most melanomas. Surgery usually cures early stage melanomas.*

**WIDE EXCISION**

When a diagnosis of melanoma is made by skin biopsy, the site will probably need to be excised again to help make sure the cancer has been removed completely. This fairly minor surgery will cure most thin melanomas.

Local anesthesia is injected into the area to numb it before the excision. The tumor is then cut out, along with a small amount of normal non-cancerous skin at the edges. The normal, healthy skin around the edges of the cancer is referred to as the margin. The wound is carefully stitched back together afterward. This will leave a scar.

The removed sample is then viewed under a microscope to make sure that no cancer cells remain at the edges of the skin that was removed.

Recommended margins vary depending on the thickness of the tumor. Thicker tumors call for larger margins.

**SENTINEL NODE BIOPSY**

If melanoma has concerning features (such as being at least a certain thickness), a sentinel lymph node biopsy is often done to see if it has spread to nearby lymph nodes, which in turn might affect treatment options.

This test can be used to find the lymph nodes that are likely to be the first place the melanoma would go if it has spread. These lymph nodes are called sentinel nodes (they stand sentinel, or watch, over the tumor).

To find the sentinel lymph node (or nodes), the doctor injects a small amount of a radioactive substance, usually a blue dye, into the area of the melanoma. After an hour or so, the doctor checks for radioactivity in the lymph node areas near the tumor. Once the radioactive area is found, a small incision is made. The lymph nodes are then checked to find which one(s) became radioactive and turned blue. These sentinel nodes are removed and looked at under a microscope.

If the sentinel node does not contain melanoma cells, no more lymph node surgery is needed because it is very unlikely the melanoma would have spread beyond this point. If melanoma cells are found in the sentinel node, the remaining lymph nodes in this area are removed and examined as well.

These margins might need to be altered based on where the melanoma is on the body and other factors. For example, if the melanoma is on the face, the margins may be smaller to avoid large scars or other problems. Smaller margins may increase the risk of the cancer coming back, so be sure to discuss the options with your doctor.

If the melanoma is on a finger or toe and has grown deeply, the treatment may require amputation of all or part of that digit.

**LYMPH NODE DISSECTION**

In this procedure, the surgeon removes all of the lymph nodes in the region near the primary melanoma. For example, if a skin melanoma is found on a leg, the surgeon would remove the nodes in the groin region on that side of the body, which is where melanoma cells would most likely travel to first.

Once the diagnosis of melanoma is made from the skin biopsy, the doctor will examine the lymph nodes nearest the melanoma. Depending on the thickness and location of the melanoma, this may be done by physical exam, or by imaging tests, such as CT or PET scans, to look at nodes that are not near the body surface.

If the nearby lymph nodes feel abnormally hard or large, and a fine needle aspiration (FNA) biopsy or excisional biopsy finds melanoma in a node or nodes, a lymph node dissection is usually done.

If the lymph nodes are not enlarged, a sentinel lymph node biopsy may be done, particularly if the melanoma is thicker.
than 1 millimeter. If the sentinel lymph node does not contain cancer, then it is unlikely the melanoma has spread to the lymph nodes and there is no need for a lymph node dissection. If the sentinel lymph node contains cancer cells, removing the remaining lymph nodes in that area with a lymph node dissection is usually advised.

It is not clear if a lymph node dissection can cure melanomas that have spread to the nodes. This is still being studied. Still, some doctors feel it might prolong a patient’s survival and at least avoid the pain that may be caused by cancer growing in these lymph nodes.

**CHEMOTHERAPY**

Chemotherapy (chemo) uses drugs that kill cancer cells. The drugs are usually injected into a vein or taken by mouth as a pill. They attack cancer cells that have already spread beyond the skin.

Chemo can be used to treat advanced melanoma, although it is not often used as the first treatment. Chemo is usually not as effective in melanoma as it is in some other types of cancer, but it may relieve symptoms or extend survival for some patients.

Doctors give chemo in cycles, with each period of treatment followed by a rest period to allow the body time to recover. Each chemotherapy cycle typically lasts for a few weeks.

**CLINICAL TRIALS**

Cancer research studies, also called trials, often involve new treatments to fight the disease, but also could be studies looking into how to prevent recurrences or trials that seek to help manage symptoms.

Baptist Health Lexington has been conducting cancer research since the 1980s, allowing patients to stay in their local community and benefit from the latest technology and therapies on a national level.

Patients are not coerced to be part of a clinical trial and may choose to withdraw from a clinical trial at any time.

Click this paragraph to learn more cancer research studies being conducted at Baptist Health Lexington.
Cancer patients at Baptist Health Lexington get the benefit of a multidisciplinary approach to fighting the disease.

“The comprehensive management of most cancers involves several oncology specialists,” said Dr. Peter Tate, a surgical oncologist with Lexington Surgeons who serves as medical director of the Multidisciplinary Oncology Clinic. “In the clinic, every case is reviewed by a team of oncology specialists. Patients do not need to wait for appointments to referral physicians, and the communication between specialists is greatly enhanced.”

The collaboration goes beyond physicians. Patients may receive services from a variety of staff members including nursing specialists, genetic counselors, clinical research coordinators, social workers, palliative medicine specialists, dietitians, chaplains, therapists and other personnel.

“Our patients are very pleased with the clinic experience,” said Dr. Tate.

Collaboration among disciplines ultimately benefits patients because the comprehensive treatments and therapies that come out of such collaboration help patients to better deal with the many aspects of their lives that are affected by cancer.
Total Melanoma Cases 2013

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*American Cancer Society Facts & Figures, Kentucky Cancer Registry and Baptist Health Lexington Cancer Registry

Melanoma Cases for 2013 by Gender

*American Cancer Society Facts & Figures
*Kentucky Cancer Registry

*Represents all facilities represented in the National Cancer Database. There is no statistical difference between survival rates by cancer stage of patient at Baptist Health Lexington compared to all facilities reporting to the NCDB.