Melanoma is a tumor of the skin that is cancerous (malignant). It grows from the melanocytes, the cells that color and tan the skin. Melanoma is also called cutaneous melanoma or malignant melanoma. The incidence of melanoma is increasing worldwide at a rate of about 5% per year.

It is a more serious problem than the more common skin cancers, basal cell cancer or squamous cell cancer. Unlike these cancers, melanoma often will spread (metastasize) to other parts of the body. 70,230 new cases of melanoma were diagnosis in the US in 2011, with 8790 resulting in death.

It is the 5th most common cancer in men and 6th most common in women.

Approximately 83% of diagnoses are made from the local site.

Melanoma can spread by local extension (through lymphatics) and/or by hematogenous routes (through the bloodstream) to distant sites. The risk of relapse may decrease over time, but late relapses are not uncommon.

Melanoma can appear on the body as a new mole, or one that has changed in size, shape, feeling or color, or developed oozing or bleeding. Adult men most often get melanoma on the trunk, especially between the shoulder blades, or on the head or neck. Women most often get melanoma on the arms and legs. It can rarely form in children.

Most melanomas are dark, but some are not, and may be flesh colored or pink to red. If there is a serious question of skin cancer, the mole or pigmented area will be cut out (local excision). This is usually done in a doctor's office. It is important that this remove the entire mole if possible.

The lab will analyze the removed skin. If melanoma is found they will report how deep and aggressive it appears. Then a physical exam and lab tests will be done to look for signs that cancer cells have spread to other parts of the body. This is called staging. A doctor needs to know the stage of the disease to plan treatment.

In the earliest melanomas, the abnormal cells are found only in the outer layer of skin cells and do not invade the body. It is more advanced if the growth goes deeper than 4 millimeters (less than 1/6 of an inch) into the skin. Most melanomas fall between these two extremes. More serious still are melanomas that have spread to the body tissue below the skin, show additional tumor around original tumor (satellite tumors), or have spread to lymph nodes or other organs.

Surgery is the primary treatment of all stages of melanoma. A second procedure is normally done to ensure complete removal of the melanoma. Complete removal of all the melanoma before it has spread is the only sure cure for melanoma. Usually, the biopsy site and a rim of apparently normal skin are removed. This is called a re-excision. The amount removed depends on how deep the melanoma has grown. Skin may have to be taken from another area of the body and put (or "grafted") where the cancer has been taken out.

Chemotherapy uses drugs to kill cancer cells. However, chemotherapy has not been shown to be very effective in treating melanoma. Clinical studies are being done to find chemotherapy drugs that are more effective. Radiation uses x-rays to kill cancer cells and shrink tumors. Radiation shrinks and slows, but does not usually cure, melanoma.
MELANOMA

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Treatment of advanced (stage III) melanoma may involve surgical removal of the tumors and any affected lymph nodes, followed by systemic or local chemotherapy with single or multiple agents. The five-year survival rate for treated Stage III patients is about 60 percent, and both the disease and the treatment often compromise quality of life.

Melanoma vaccines are the most promising new treatment for advanced melanoma. These try to teach the body to fight the cancer. Different centers make their own vaccine different ways. Some seem to work better than others, but results are still inconclusive. 15-20% of patients receiving melanoma vaccines experience partial or complete regression of metastases. Patients who react to the vaccine therapy have significantly longer survival. However, no one has yet demonstrated an unequivocal survival benefit for melanoma so it is still experimental.