

Overview of Melanoma and Skin Cancer

Skin cancer begins in the cells that make up the outer layer (epidermis) of your skin. As new cells move upward, they become flattened squamous cells, where a skin cancer called squamous cell carcinoma can occur. Melanoma, another type of skin cancer, arises in the pigment cells (melanocytes). The immune system helps the body fight cancers of the skin and other organs. Skin cancers in people with weakened immune systems tend to grow faster and are more likely to be fatal. Treatment with large doses of corticosteroid drugs can also weaken the immune system. Skin cancer occurs when the body does not repair damage to the DNA inside skin cells, allowing the cells to divide and grow uncontrollably. Skin cell damage may be caused by a variety of factors, including genetics and skin type. These cells give skin its pigment and darken the skin when it is exposed to the sun.

The symptoms of skin cancer in the early stages and other warning signs are:

- A sore that doesn't heal.
- Spread of pigment from the border of a spot into surrounding skin.
- Redness or a new swelling beyond the border of the mole.
- Change in sensation, such as itchiness, tenderness, or pain

How to Spot Skin Cancer

- Asymmetry. One part of a mole or birthmark doesn't match the other.
- Border. The edges are irregular, ragged, notched, or blurred.
- Color. The color is not the same all over and may include shades of brown or black, sometimes with patches of pink, red, white, or blue.
- Diameter
- Evolving

People who develop abnormally frequent cases of a skin cancer known as basal cell carcinoma appear to be at significantly increased risk for developing of other cancers, including blood, breast, colon and prostate cancers, according to a preliminary study by researchers at the Stanford University School of Medicine.

Melanoma can grow very quickly. It can become life-threatening in as little as six weeks and, if untreated, it can spread to other parts of the body.

What skin cancer looks like when it starts:

Squamous Cell Carcinoma: This non-melanoma skin cancer may appear as a firm red nodule, a scaly growth that bleeds or develops a crust, or a sore that doesn't heal. It most often occurs on the nose, forehead, ears, lower lip, hands, and other sun-exposed areas of the body.

Melanoma is a very serious skin cancer characterized by the uncontrolled growth of cells that produce pigment, the substance in skin that produces color. Melanomas may appear suddenly and without warning. They are found most frequently on the face and neck, upper back and legs, but can occur anywhere on the body.

Melanoma can go away on its own. Melanoma on the skin can spontaneously regress, or begin to, without any treatment. That's because the body's immune system is able launch an assault on the disease that's strong enough to spur its retreat.

Most skin cancers are caused by exposure to ultraviolet (UV) light. When you don't protect your skin, UV rays from sunlight or tanning beds can damage your skin's DNA. When the DNA is altered, it can't properly control skin cell growth, leading to cancer. A number of things can raise your chances of getting it.

Common types of skin cancer include:

- Basal cell carcinoma. Of the more than 3 million cases of skin cancer diagnosed every year, more than 80 percent are basal cell carcinoma, according to the American Cancer Society.
- Recurrent basal cell carcinoma.
- Squamous cell carcinoma.
- Melanoma.
- Merkel cell carcinoma.
- Rare skin cancers.

If melanoma is recognized and treated early, it is almost always curable, but if it is not, the cancer can advance and spread to other parts of the body, where it becomes hard to treat and can be fatal. While it is not the most common of the skin cancers, it causes the most deaths.

Most basal cell and squamous cell carcinomas typically appear after age 50. However, in recent years, the number of skin cancers in people age 65 and older has increased dramatically. This may be due to better screening and patient tracking efforts in skin cancer.

Any unusual sore, lump, blemish, marking, or change in the way an area of the skin looks or feels may be a sign of skin cancer or a warning that it might occur. The area might become red, swollen, scaly, crusty or begin oozing or bleeding. It may feel itchy, tender, or painful.

In contrast, people with pale or freckled skin, fair or red hair and blue eyes belong to the highest risk group (skin types I, II); people with dark hair and eyes who do not normally get sun burnt are at medium risk of developing skin cancer (skin types III, IV).

Overview of Brain Cancer

The exact cause of brain cancer is unknown. However, factors that can increase your risk of brain cancer include exposure to high doses of ionizing radiation and a family history of brain cancer. Cancer in another part of your body is also a risk factor.

Primary brain tumors begin when normal cells acquire errors (mutations) in their DNA. These mutations allow cells to grow and divide at increased rates and to continue living when healthy cells would die. The result is a mass of abnormal cells, which forms a tumor. In general, men are more likely than women to develop a brain tumor. However, some specific types of brain tumors, such as meningioma, are more common in women. Home and work exposures to solvents, pesticides, oil products, rubber, or vinyl chloride may increase the risk of developing a brain tumor.

Brain metastases occur when cancer cells spread from their original site to the brain. As the metastatic brain tumors grow, they create pressure on and change the function of surrounding brain tissue. Brain metastases can cause many signs and symptoms.

These symptoms include drowsiness, headaches, cognitive and personality changes, poor communication, seizures, delirium (confusion and difficulty thinking), focal neurological symptoms, and dysphagia. Some patients may have several of these symptoms, while others may have none.

Grade I brain tumors may be cured if they are completely removed by surgery. Grade II — The tumor cells grow and spread more slowly than grade III and IV tumor cells. They may spread into nearby tissue and may recur (come back). ... Grade IV tumors usually cannot be cured. The long-term survival rate (life expectancy greater than five years) for people with primary brain cancer varies. In cases of aggressive or high-grade brain cancers it is from less than 10% to about 32%, despite aggressive surgery, radiation, and chemotherapy treatments.

Glioblastoma (grade 4)

The average survival time is 12-18 months - only 25% of glioblastoma patients survive more than one year, and only 5% of patients survive more than five years.

Other common symptoms reported in the end-of-life phase are progressive neurological deficits, incontinence, progressive cognitive deficits, and headache.

The first signs your body is shutting down:

They could have:

- Different sleep-wake patterns.
- Little appetite and thirst.
- Fewer and smaller bowel movements and less pee.
- More pain.
- Changes in blood pressure, breathing, and heart rate.
- Body temperature ups and downs that may leave their skin cool, warm, moist, or pale.

Overview of Bladder Cancer

This cancer usually is diagnosed early, when it's still treatable. It's likely to recur, so follow-up tests are typically recommended. The most common symptom is blood in the urine. Treatments include surgery, biological therapy, and chemotherapy. Bladder cancer occurs in men more frequently than it does in women and usually affects older adults, though it can happen at any age. Bladder cancer most often begins in the cells (urothelial cells) that line the inside of the bladder- the hollow, muscular organ in your lower abdomen that stores urine.

Even after reporting the problem to their doctors, blood in the urine may be initially misdiagnosed as a symptom of post-menopausal bleeding, simple cystitis or as a urinary tract infection. As a result, a bladder cancer diagnosis can be overlooked for a year or more.

What are the symptoms of bladder cancer?

- blood in the urine.
- painful urination.
- frequent urination.
- urgent urination.
- urinary incontinence.
- pain in the abdominal area.
- pain in the lower back.
- pelvic pain.
- loss of appetite.

Causes of bladder cancer include:

- Smoking and other tobacco use,
- exposure to chemicals, especially working in a job that requires exposure to chemicals.
- Past radiation exposure.

Not drinking enough fluids may be a risk factor for bladder cancer. Researchers think people who drink plenty of water each day empty their bladders more often, which may keep harmful chemicals from sticking around in the bladder.

Who is at high risk for Bladder Cancer:

Other workers with an increased risk of developing bladder cancer include painters, machinists, printers, hairdressers (probably because of heavy exposure to hair dyes), and

truck drivers (likely because of exposure to diesel fumes). Cigarette smoking and workplace exposures can act together to cause bladder cancer.

Like all cancers, bladder cancer is most likely to be cured if it is diagnosed early and treated promptly. The type of therapy you receive will vary with the stage and grade of the bladder cancer and your overall health.

Tests and procedures used to diagnose bladder cancer may include:

- Cystoscopy. To perform cystoscopy, your doctor inserts a small, narrow tube (cystoscope) through the urethra. ...
- Biopsy. ...
- Urine cytology. ...
- Imaging tests.

High grade bladder cancer is likely to grow and spread quickly and become life threatening. High-grade cancers often need to be treated with chemotherapy, radiation or surgery. Low-grade cancers appear non-aggressive and have a low chance of becoming high grade. They are rarely life threatening.