Types of Cancers That Develop in Young Adults

Cancer starts when cells begin 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. To learn more about cancer and how it starts and spreads, see What Is Cancer?¹

What is a young adult cancer?

There is no strict definition of what separates “childhood cancers” from cancers in young adults, or when exactly a person is no longer a young adult. But for statistics purposes, cancers in young adults are often thought of as those that start between the ages of 20 and 39.

Cancer is not common in young adults, but a wide variety of cancer types can occur in this age group, and treating these cancers can be challenging.

Most cancers occur in older adults. The most common cancers in older people are cancers of the skin, lung, colon and rectum, breast (in women), and prostate (in men). Many cancers in older adults are linked to lifestyle-related risk factors (such as smoking, being overweight or obese, or not getting enough physical activity) or to other environmental factors. A small portion are strongly influenced by changes (mutations) in a person’s genes² that they inherit from their parents.

Cancers that start in children³ or in teens⁴ are much less common. The types of cancers that develop in children and teens are often different from the types that develop in adults. Childhood cancers are often the result of gene changes that take place very early in life, sometimes even before birth. Unlike many cancers in adults, cancers in children and teens are not strongly linked to lifestyle or environmental risk factors.
The types of cancers that occur in young adults are a mix of many of the types that can develop in children, teens, and older adults.

**The most common cancers in young adults**

The types of cancers seen in young adults (ages 20 to 39) are not unique to this age group, but the most common types in this age range are largely different from those in children or older adults.

Some of the most common cancers in young adults are:

- Breast cancer
- Lymphomas (non-Hodgkin and Hodgkin)
- Melanoma
- Sarcomas (cancers of connective tissues like muscles and bones)
- Cancers of the female genital tract (cervix and ovary)
- Thyroid cancer
- Testicular cancer
- Colorectal cancer
- Brain and spinal cord tumors

Even within this age group, some of these cancers become more or less common as people age. For example, lymphomas are more common before age 25, whereas breast, cervical, and colorectal cancers become more common after age 25.

Many other types of cancer can occur in young adults as well.

**Breast cancer**

Breast cancer is seen most often in older women. It’s rare before age 30, but it becomes more common as women age. Among young adults, the outlook tends to be better in those who are older at the time of diagnosis.

The most common sign of breast cancer is a new lump or mass that’s often hard and painless, although some cancers are soft, tender, or even painful. Young women often have breast lumps that are not cancer. In fact, the younger a woman is, the more likely it is that a breast lump will be benign (not cancer). Although most lumps aren’t breast cancer, there’s always a chance that a lump may be cancer, even in a younger woman.

Other possible signs of breast cancer include breast pain or swelling, thickening of the
breast skin, changes in the nipple, or fluid (other than milk) leaking from the nipple.

No matter what age a woman is, breast lumps and other changes need to be checked by a doctor to be sure they are not breast cancer.

For more information, see Breast Cancer⁵.

Lymphoma

Lymphomas are cancers that start in certain immune cells called lymphocytes. These cancers most often affect lymph nodes or other lymph tissues, like the tonsils or thymus (a small organ in front of the heart). They can also affect the bone marrow and other organs.

Lymphomas can cause different symptoms depending on where the cancer is. Some of the more common symptoms include weight loss, fever, sweats, tiredness, and lumps (swollen lymph nodes) under the skin in the neck, armpit, or groin.

There are 2 main types of lymphoma:

- Hodgkin lymphoma (sometimes called Hodgkin disease)
- Non-Hodgkin lymphoma.

Both types can occur in young adults.

Hodgkin lymphoma is most common in 2 age groups: early adulthood (ages 15 to 40, but usually people in their 20s) and late adulthood (after age 55). This type of cancer is similar in all age groups, including which types of treatment work best.

Non-Hodgkin lymphoma (NHL) is less common than Hodgkin lymphoma in young adults, but the risk of NHL goes up as people get older. There are many types of NHL. Some of the types seen more often in young adults tend to grow quickly and require intense treatment, but they also tend to respond better to treatment than NHL in older adults.

For more information, see Hodgkin Lymphoma⁶ and Non-Hodgkin Lymphoma⁷.

Melanoma

Melanoma is a type of skin cancer. It's more likely to occur in older adults, but it’s also found in younger people. In fact, melanoma is one of the most common cancers in
people younger than 30 (especially younger women). Melanoma that runs in families can occur at a younger age.

The most important warning sign for melanoma is a new spot on the skin or a spot that’s changing in size, shape, or color. A spot that looks different from all of the other spots on your skin can also be a warning. If you have any of these warning signs, have your skin checked by a doctor.

The chance of curing a melanoma is often very good if it’s found and treated early. But if left alone, it can grow and spread quickly, which can make it much harder to treat.

For more information, see Melanoma Skin Cancer⁸.

**Soft tissue and bone cancers (sarcomas)**

Sarcomas are cancers that start in connective tissues such as muscles, bones, or fat cells. There are 2 main types of sarcoma:

- Soft tissue sarcomas (which start in muscles, fat, blood vessels or other some body tissues)
- Bone sarcomas

Sarcomas can develop at any age, but some types occur most often in older teens and young adults.

**Soft tissue sarcomas**: These cancers can start in any part of the body, but they often develop in the arms or legs. Rhabdomyosarcoma, a cancer that starts in cells that normally develop into skeletal muscles, is most common in children younger than 10, but it can also develop in teens and young adults. Most other types of soft tissue sarcomas become more common as people age. Symptoms depend on where the sarcoma starts, and can include lumps (which might or might not cause pain), swelling, or bowel problems.

For more information, see Soft Tissue Sarcoma⁹ and Rhabdomyosarcoma¹⁰.

**Bone sarcomas**: The 2 most common types of bone cancer, osteosarcoma and Ewing sarcoma, are most common in teens, but they can also develop in young adults. They often cause bone pain that gets worse at night or with activity. They can also cause swelling in the area around the bone.

Osteosarcoma usually starts near the ends of the leg or arm bones. The most common
places for Ewing sarcoma to start are the pelvic (hip) bones, the bones of the chest wall (such as the ribs or shoulder blades), or in the middle of the leg bones.

For more information, see Osteosarcoma\textsuperscript{11} and Ewing Family of Tumors\textsuperscript{12}.

Cancers of the female genital tract (cervix and ovary)

Cervical cancer tends to occur in midlife. Most often it is found in women younger than 50. It rarely occurs in women younger than 20. Most cervical cancers can be found early, or even prevented, with screening tests. Vaccines against HPV\textsuperscript{13}, the virus linked to most cervical cancers, can also help prevent it. The most common symptom of cervical cancer is abnormal vaginal bleeding.

Overall, ovarian cancer is much more common in older women than in women younger than 40. But some less common types of ovarian cancers, known as germ cell tumors, are more common in teens and young women than in older women. Early ovarian cancer usually does not cause symptoms, but some women might feel full quickly when eating or they might have abnormal bloating, belly pain, or urinary symptoms. Women who have any of these symptoms lasting more than a few weeks should see their doctor.

For more information, see Cervical Cancer\textsuperscript{14} and Ovarian Cancer\textsuperscript{15}.

Thyroid cancer

The risk of thyroid cancer tends to go up as people get older, but it’s often found at a younger age than most other adult cancers. It’s much more common in women than in men.

The most common symptom of thyroid cancer is a lump in the front of the neck. Most thyroid lumps are not cancer, but it’s important to have them checked by a doctor to be sure. Other symptoms of thyroid cancer can include pain or swelling in the neck, trouble breathing or swallowing, and voice changes.

The chance of curing these cancers is usually very good, especially in young adults.

For more information, see Thyroid Cancer\textsuperscript{16}.

Testicular cancer

Testicular cancer most often develops in younger men. About half of testicular cancers
occur in men between the ages of 20 and 34, but it can occur at any age.

Most often, the first symptom of testicular cancer is a lump on the testicle, or the testicle becomes swollen or larger. Some testicular tumors might be painful, but most of the time they are not. It’s important to have any lumps checked by a doctor as soon as possible so that the cause can be found.

In general, the outlook for testicular cancers is very good, and most of these cancers can be cured.

For more information, see Testicular Cancer\textsuperscript{17}.

**Colorectal cancer**

Cancers of the colon and rectum are much more common in older adults, but they can occur at younger ages. In young adults, they are more likely to be linked to an inherited genetic condition that greatly increases a person’s risk. Screening tests can often find these cancers early, but screening isn’t recommended for younger adults unless they have strong risk factors such as a known inherited condition.

Symptoms of colorectal cancer can include rectal bleeding, dark-colored stools, changes in bowel habits, belly pain, loss of appetite, and weight loss.

Among young adults, the outlook for these cancers tends to be better in those who are older at the time cancer is found.

For more information, see Colorectal Cancer\textsuperscript{18}.

**Brain and spinal cord tumors**

There are many types of brain and spinal cord tumors, and the treatment and outlook for each is different. In children, most brain tumors start in the lower parts of the brain, such as the cerebellum (which coordinates movement) or brain stem (which connects the brain to the spinal cord). Adults are more likely to develop tumors in upper parts of the brain. Spinal cord tumors are less common than brain tumors in all age groups.

Brain tumors can cause headaches, nausea, vomiting, blurred or double vision, dizziness, seizures, trouble walking or handling objects, and other symptoms.

For more information, see Brain and Spinal Cord Tumors in Adults\textsuperscript{19}.
Hyperlinks


References


National Cancer Institute. Adolescents and Young Adults with Cancer. 2018. Accessed