

Clotting Problems [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 10/2014

People with cancer, especially those receiving treatment, are at risk for blood clots. A person with a clotting disorder may get blood clots in the veins or arteries if the blood forms a clot inappropriately.

Normal blood clotting, called coagulation, is a complex process in which specialized blood cells called platelets and different proteins in the blood called clotting or coagulation factors clump together to heal broken blood vessels and control bleeding. There is a delicate balance of coagulation factors that promote bleeding and those that promote clotting. Blood clotting disorders occur when some clotting factors are missing or damaged and form clots inside arteries or veins. These clots can block the normal blood flow and break off and travel to other parts of the body, causing serious problems. When a blood clot occurs in a vein it is called a deep venous thrombosis (DVT). If the blood clot occurs in a vein in the lungs, or travels into the lungs, it is called a pulmonary embolus (PE). A blood clot can also occur in an artery, which is less common but also very serious.

Signs and Symptoms

Relieving side effects?also called symptom management, [palliative care](#) [3], or supportive care?is an important part of cancer care and treatment. Talk with your health care team about any symptoms you experience, including any new symptoms or a change in symptoms.

People with clotting problems may experience some of these symptoms:

- Leg swelling on one side of the body
- Pain in the arm or leg where a blood clot is located
- Trouble breathing or chest pain when breathing
- Rapid heart beat
- Low oxygen levels

Tell your doctor about any symptoms of blood clots immediately. Often, symptoms do not occur until the level of platelets is very low. Sometimes patients do not know they have a blood clot until it is diagnosed during a test.

Causes

People with cancer have a higher risk of blood clots and clotting disorders. This increased risk can be due to the cancer or treatment for the cancer, such as chemotherapy, surgery, medications called steroids, and the long-term use of a catheter [4]. Long periods of inactivity, such as a long plane or car ride can also increase the risk of a blood clot. To learn more about the risk factors for developing a blood clot, read ASCO's recommendations for preventing and treating blood clots [5].

Diagnosis

A blood clot in the arms or legs is most commonly diagnosed using a type of ultrasound technique called a Doppler. This test uses sound waves to look at the flow of blood in veins. It can detect decreased blood flow from a blood clot.

A blood clot in the lungs, or pulmonary embolism, is usually diagnosed with a computed tomography (CT) scan [6]. A CT scan creates a three-dimensional picture of the inside of the body with an x-ray machine. A special dye called a contrast is injected into a patient's vein before the scan to provide better detail on the image. Occasionally, a type of test called a lung ventilation/perfusion, or VQ, scan is used to diagnose a blood clot in the lungs. This test is made up of two different scans: the ventilation scan that looks at the airflow in the lungs and the perfusion scan that looks at the blood flow in the lungs.

To diagnose a blood clot in an artery, your doctor may recommend an angiogram. During an angiogram, a dye is injected into an artery, which is then examined with a special x-ray device called a fluoroscope.

Management

A blood clot needs immediate treatment. The most common treatment is to start blood thinners either by injection under the skin or into a vein. Once the blood is considered thin enough, meaning there is no longer a risk of clotting, some patients may begin to receive a blood thinner as a pill that is swallowed. Patients who are receiving blood thinners need to be regularly monitored so that there is no increased bleeding. Some patients are unable to receive blood thinners because they have low platelet levels or a high risk of bleeding. For these patients, a special type of filter can be placed in the body to prevent a blood clot from traveling to the lungs where it can be very dangerous. For more information about managing blood clots, including a list of questions to ask the doctor, read ASCO's recommendations for preventing and treating blood clots [5].

More Information

Bleeding Disorders [7]

Thrombocytopenia [8]

Side Effects [9]

Links:

[1] <http://www.cancer.net/navigating-cancer-care/side-effects/clotting-problems>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/31921>

[4] <http://www.cancer.net/navigating-cancer-care/how-cancer-treated/chemotherapy/catheters-and-ports-cancer-treatment>

[5] <http://www.cancer.net/node/29916>

[6] <http://www.cancer.net/node/24486>

[7] <http://www.cancer.net/node/25243>

[8] <http://www.cancer.net/node/25261>

[9] <http://www.cancer.net/node/25238>