

What is cancer?

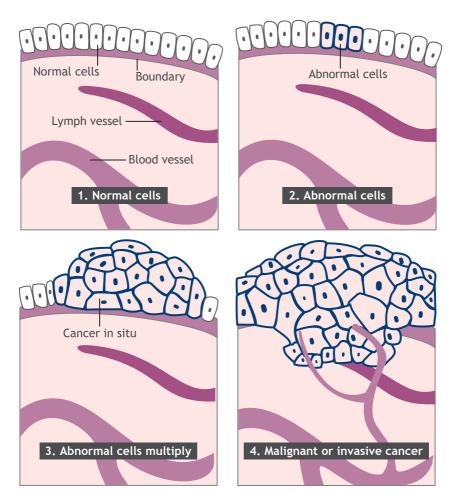
Cancer is a disease of the body's cells. It starts in our genes. Our bodies are constantly making new cells to allow us to grow, replace worn-out cells or heal damaged cells after an injury.

The process of making new cells is controlled by certain genes: the codes that tell our cells how to grow and behave. Cancers are caused by damage to these genes. These changes usually happen during our lifetime.

In a very small number of families, damaged genes may be passed through the generations. While these people will have an increased risk of developing cancer, it does not mean they will definitely get cancer.

How cancer starts

Tumours can be benign (not cancerous) or malignant (cancerous). Benign tumours do not spread to other parts of the body.



How cancer spreads

A malignant tumour is made up of cancer cells. When it first develops, a malignant tumour is usually confined to its original site. This is known as the primary site. Some tumours can become quite large within their organ of origin, for example, the lung or breast. With growth, the tumour may spread beyond the original organ boundaries and into surrounding tissues. This is called locally advanced cancer.

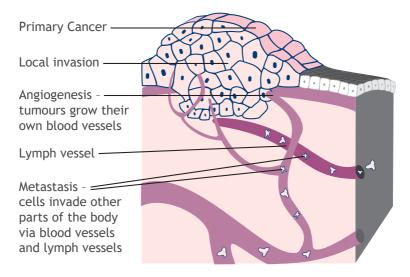
Sometimes cells move away from the original (primary) cancer through the bloodstream or lymphatic systems and start to grow in other body organs. When these cells reach a new site they may form another lump or mass. This is called a secondary cancer or metastasis. For example, if lung cancer spreads to the bone, it is called a bone secondary (or metastasis).

If the only place of spread is to nearby lymph nodes, this is called regional nodal spread. Your cancer doctor will still refer to it as lung cancer even though it has spread to another part of your body.

The sort of treatment you are offered for cancer depends on the type of cancer, where it began and whether it has spread. Your cancer doctor will also take into account other things about you, such as your age and general health.

Treatment for cancer includes surgery, radiation treatment or chemotherapy (drug treatment). Immune therapy or targeted treatments, which are now used to treat some cancers, will become more important in the future.

Sometimes only one of these types of treatment is used for a cancer. Sometimes more than one is used.



How your lungs work

The lungs are part of the respiratory system that helps you to breathe. The respiratory system also includes the nose, mouth, windpipe (trachea) and airways to each lung - known as the large airways (bronchi) and small airways (bronchioles).

Several parts of the body lie in the space between the lungs, called the mediastinum, including the:

- heart and large blood vessels
- windpipe (trachea)
- lymph glands (also known as lymph nodes).