



This information sheet answers the question: what is cancer? The words in bold are explained in the glossary at the end.

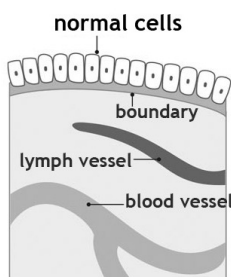
Cancer is a disease of the body's **cells**. Our bodies are always making new cells to replace worn-out ones or to heal damaged cells after an injury. This process is controlled by certain **genes**: the codes that tell our cells how to grow and behave. Cancers are caused by damage to these genes.

Usually this damage happens during our lifetime. Some people inherit a damaged gene from a parent, which means that if they develop cancer it may be at an earlier than average age.

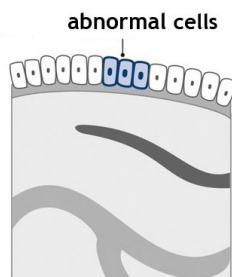
The beginnings of cancer

Normally, cells grow and multiply in an orderly way. However, damaged genes can cause them to behave abnormally. They may grow into a lump, which is called a **tumour**. Tumours can be **benign** (not cancerous) or **malignant** (cancerous). Benign tumours are surrounded by a capsule and do not spread to other parts of the body.

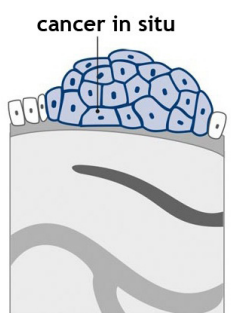
The beginnings of cancer



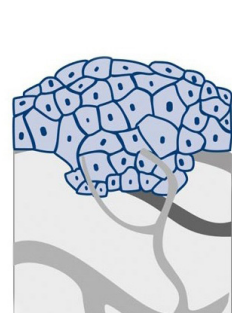
1. Normal cells



2. Abnormal cells

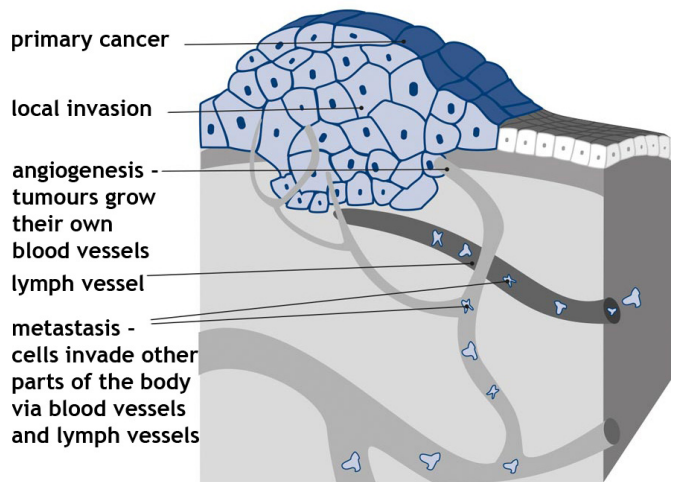


3. Abnormal cells multiply



4. Malignant or invasive

How cancer spreads



Malignant tumours invade into the surrounding tissues, and may form a **secondary** cancer or metastasis in another part of the body. For a cancer to grow bigger than the head of a pin, it must grow its own blood vessels. This is called angiogenesis.

Glossary

Benign - not cancerous. Benign cells are not able to spread elsewhere in the body.

Cells - the 'building blocks' of the body. A human is made of millions of cells, which are adapted for different functions. Cells are able to reproduce themselves exactly, unless they are abnormal or damaged, as are cancer cells.

Genes - the codes contained in DNA in each cell that control the way the body's cells grow and behave. Each person has a set of many thousands of genes inherited from both parents. Genes are found in every cell of the body.

Malignant - a tumour that is cancerous and is likely to spread if it is not treated.

Secondary - when a cancer has spread from the original site to another part of the body. It can also be called a 'secondary cancer'. It is sometimes shortened to 'mets'.

Tumour - a swelling or lump. Tumours can be benign (not cancerous) or malignant (cancerous).

This information sheet was reviewed in 2016 by the Cancer Society of New Zealand. The Cancer Society's information sheets are reviewed every three years.

For cancer information and support phone **0800 CANCER (226 237)** or go to **www.cancernz.org.nz**