Leukaemia

What is leukaemia?

Leukaemia is a problem with how white blood cells are made. This is one of the three types of blood cells made in the bone marrow. The bone marrow is where blood is made.

If the white blood cells are not made properly they can’t do their job of defending the body against germs and infections.

Types of blood cells

- **Red blood cells**
  - carry oxygen around the body
- **White blood cells**
  - fight infection
- **Platelets**
  - help the blood to clot

Types of leukaemia

There are different types of leukaemia.

- **Acute leukaemia** – starts suddenly and develops quickly
- **Chronic leukaemia** – develops slowly and lasts a long time.

There are different types of acute and chronic leukaemia:

- acute myeloid leukaemia (AML)
- acute lymphoblastic leukaemia (ALL)
- chronic myeloid leukaemia (CML)
- chronic lymphocytic leukaemia (CLL)
How will I know I have leukaemia?

The signs of leukaemia are different depending on the type you have. You will probably:

- feel tired and weak
- look pale and feel puffed out because the number of red blood cells go down (anaemia)
- get sick a lot – mouth sores, fevers, coughing – because the number of white blood cells go down
- bruise more easily
- bleed more easily because the number of platelets go down.

The time it takes to develop these signs will be different depending on the type of leukaemia. For acute leukaemia it can be weeks. For chronic leukaemia it can take months or years.

To check these signs for cancer, you may have several tests. What tests you have may depend on what type of leukaemia your doctor thinks you have.

- **blood tests** – a needle is used to remove some blood and it is checked to see if it contains leukaemia cells
- **bone marrow biopsy** – a needle is used to remove a small amount of tissue from a large bone, usually the hip
- **scans such as CT scan** – you lie on a table that moves into a long tube and then x-rays are taken
- **lumbar puncture** – a needle is used to remove a small amount of fluid from the spine
- **flow cytometry tests** – analyse the properties of the cancer cells
- **chromosomal tests** – analyse DNA to work out what type of acute leukaemia

What do the test results mean?

The test results will tell the doctor what type of leukaemia you have, and if the cancer has spread (the stage). This information helps the doctors decide what treatment you need.
LEUKAEMIA

What treatment will I need?

There are different types of treatment for leukaemia. The treatment you need will depend on the type of leukaemia you have. You may have one or more of these treatments.

Acute leukaemia needs to be treated straightaway.

Chronic leukaemia is often divided into phases. Treatment will depend on the phase of the leukaemia.

- **Drugs called tyrosine kinase inhibitors** – work by blocking signals that tell the leukaemia cells to grow
- **Chemotherapy** – uses drugs to kill or injure the cancer cells
- **Radiotherapy** – uses x-rays to kill or injure the cancer cells
- **Bone marrow transplant** – an operation to replace the bone marrow destroyed by high-dose chemotherapy

How will the treatment affect my body?

Treatment for leukaemia can cause problems. Some of the common ones include:

- **Feeling like vomiting** – This can happen after chemotherapy or radiotherapy.
- **Hair falling out** – This can happen with some chemotherapy drugs.
- **Increased risk of infections** – This can happen after chemotherapy or after a bone marrow transplant.

How do I manage the cancer?

It is normal for you and your family to have lots of different feelings right now. Talking with your doctor, nurse or health care professional will help answer any of the questions you may have.

For more information

- Call Cancer Council 13 11 20
- Visit www.cancercouncil.com.au
- Visit www.menzies.edu.au/cancer
- For current Aboriginal and Torres Strait Islander cancer-related statistics, see www.aihw.gov.au

This information has been adapted for Aboriginal and Torres Strait Islander people by Menzies School of Health Research in consultation with a Clinical Advisory Group and an Indigenous Consultation group. Production by Cancer Council.