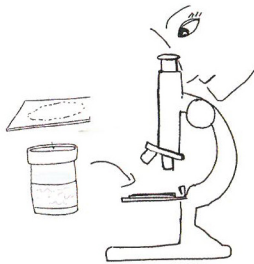


## What tests may be done?

Blood is not the only sample that is tested to identify diseases. The organs and tissues of the body show changes when there is disease present.

To test the tissues directly, a small piece of tissue is cut out, or removed by using a needle. The tissue can then be studied with the help of a microscope which allows the pathologist (specialist doctor) to see much more detail than with just the eye. This sort of testing is very important when cancer is suspected.



These tests are done in the  
**ANATOMICAL PATHOLOGY LABORATORY**

When a person dies as a result of an accident or a crime the whole body will be fully examined by a pathologist. The findings will be used to explain the person's death in a court of law.

These tests are done in the  
**FORENSIC PATHOLOGY LABORATORY**

## What tests may be done?

Your blood sample may sometimes need other very special tests.

For example, tests can be done to show that a patient has an allergy that is causing disease such as asthma.

These tests are done in the  
**IMMUNOLOGY LABORATORY**



Or, tests can be done to show that a patient has an inherited disease, that is a disease that occurs in their family and may be passed from parents to children.

These tests are done in the  
**GENETICS LABORATORY**

## What happens to my blood sample?

Where does my blood go?



Usually the doctor takes blood samples to do tests that will help identify what disease (illness) you have. If it is already known what disease you have, then tests may be done to see if you are getting better or worse.

Your blood samples will go to one or more laboratories for testing. There are specialist doctors working in the laboratories; these doctors are called **PATHOLOGISTS**. The pathologists are assisted by many other laboratory workers.

[www.mybloodsample.uct.ac.za](http://www.mybloodsample.uct.ac.za)



Department of Pathology



NATIONAL HEALTH  
LABORATORY SERVICE

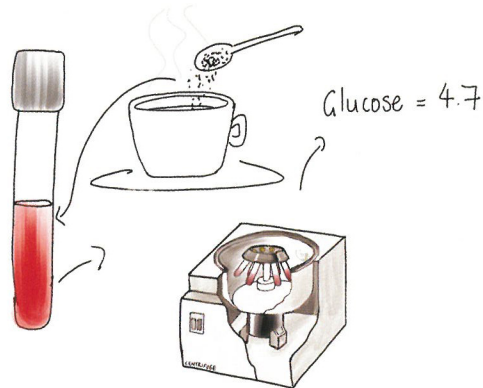
## What tests may be done?

Tests can be done to measure chemicals dissolved in your blood.

For example, the level of sugar (glucose) in the blood is important to know in diabetics. The levels of salts in the blood are important to check in people with kidney and heart disease.

There are many other chemicals in the blood that can be measured, relevant in different diseases.

These tests are done by special machines.



These tests are done in the  
**CHEMICAL PATHOLOGY LABORATORY**

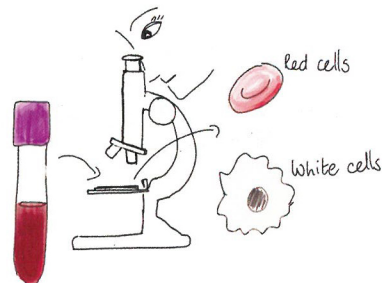
## What tests may be done?

Tests can be done to check the state of the cells in the blood - the red cells and white cells. These cells can be too few or too many, and can show other changes.

For example, white cells increase in the blood when there is infection somewhere in the body, since these cells help fight infection.

Red cells become fewer in the blood due to bleeding, or when not enough cells are made for some reason.

The blood cells are too small to be seen with the eye, but can be counted by special machines and be examined with the help of a microscope.



These tests are done in the  
**HAEMATOLOGY LABORATORY**

## What tests may be done?

Tests can be done to look for germs like bacteria and viruses in your blood, to prove there is infection in the body.

Bacteria are revealed when they grow in the laboratory, and the particular type of bacteria can be identified. Correct treatment can then be given (antibiotic treatment).

These tests are done in the  
**MICROBIOLOGY LABORATORY**

The HI virus (HIV) can be detected in the blood, and so the diagnosis of HIV infection can be made. The quantity of the virus can be measured in the blood; this is a helpful test to check that treatment is successful.

Bacteria and viruses can also be grown and identified from samples that are not blood. For example, the tuberculosis (TB) bacteria infects the lungs, and it can be found in a sputum sample.

These tests are done in the  
**VIROLOGY LABORATORY**

