Taking blood samples

Revision. Complete the sentences about the blood

_____, which can be seen under a microscope, make up about 40% of the blood's volume. They are made in the bone _____.
There are three main types:
_____ (erythrocytes). These make blood a red colour. They contain a chemical called _____. This allows oxygen to be transported from the lungs to all parts of the body.
_____ (leukocytes). They are a part of the _____ system and are mainly involved in fighting infection.
_____. These are tiny and help the blood to _____ if we cut ourselves.

1. The _____ system is the most important blood-group system in human-blood transfusion, and it contains 4 blood groups
People with type O negative blood are often called _____because they can give blood to any other blood group. People with type AB positive blood are called _____because they can receive blood from any other blood group.

1. Read the text and decide if the sentences are True / False?

a) Blood tests are only used to find certain diseases.

b) Taking blood isn't a complicated procedure.

c) It is prohibited to eat and drink before the test in any case.

d) A blood sample can be only drawn from the arm.

e) A tourniquet is used to press veins.

f) Blood is drawn from all blood vessels.

g) A prick is not really painful.

h) Patients faint because of unbearable pain.

i) Bruises may occur after a blood test.

j) The test results are delivered directly to patients.

Why do we need a blood test?

A blood test is taking a sample of blood for testing in a laboratory. Blood tests have a wide range of uses and are one of the most common types of medical test.

For example, a blood test can be used to:

- assess your general state of health
- confirm the presence of a bacterial or viral infection
- see how well certain organs, such as the liver and kidneys, are functioning
- screen for certain genetic conditions

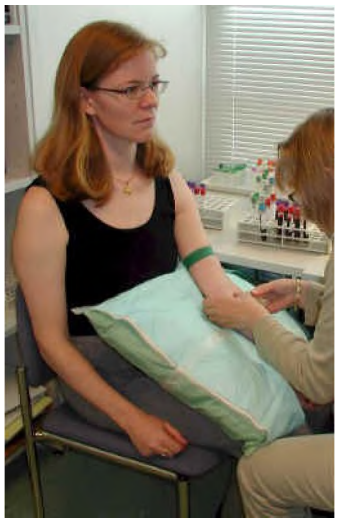
Most blood tests only take a few minutes to complete and are carried out at your GP surgery or local hospital. Nurses and phlebotomists draw blood to perform a variety of medical tests. This article will teach you how the professionals draw blood from patients.

Preparing for a blood test

The healthcare professional who arranges your blood test will tell you whether there are any specific instructions you need to follow before your test. For example, you may be asked to avoid eating or drinking anything, or stop taking a certain medication

What happens during a blood test?

A blood test usually involves taking a blood sample from a blood vessel in your arm. The arm is a convenient part of the body to use because it can be easily uncovered. The usual place for a sample to be taken from is the inside of the elbow or wrist, where the veins are relatively close to the surface.



A tight band (tourniquet) is usually put around your upper arm. This squeezes the arm, temporarily slowing down the flow of blood out of the arm, and causing the vein to swell with blood. This makes it easier for a blood sample to be taken.

Before taking the sample, the doctor or nurse may need to clean the area with an antiseptic wipe.

A needle attached to a syringe or to a special blood-collecting container is pushed into the vein. The syringe is used to draw out a sample of your blood. You may feel a slight pricking sensation as the needle goes in, but it should not be painful. If you do not like needles and injections, tell the person who is taking the sample so they can make you more comfortable. If you feel faint, lie down.

When the sample has been taken, the needle will be removed. Pressure is applied to the tiny break in the skin for a few minutes using a cotton-wool pad to stop the bleeding and to prevent bruising. A plaster may then be put on the small wound to keep it clean and prevent infection.

After the test

Only a small amount of blood is taken during the test so you shouldn't feel any significant after-effects.

However, some people do feel dizzy and faint during and after the test. If this happens to you, tell the person carrying out the test so they can help you feel more comfortable.

After a blood test, you may have a small bruised area on your skin where the needle went in. Occasionally, a larger area of bruising may appear. This can be because there was a lack of pressure at the site of the jab or the blood vessel was damaged by the needle.

Bruises can be painful but are usually harmless. However, tell your GP if you frequently get bruises after having a blood test.

Results

After the blood sample has been taken, it will be put into a bottle and labelled with your name. It will then be sent to a laboratory where it will be examined under a microscope or tested with chemicals, depending on what's being checked. The results are sent back to the hospital or to your GP, and you will be told when and how you will be given them.

Sometimes, receiving results can be stressful and upsetting. If you are worried about the outcome of a test, you may choose to take a trusted friend or relative with you. For some tests, such as HIV, you will be offered specialist counselling to help you deal with your results.

2. Watch the film about taking blood samples and underline correct answers. "Medical Tube- Some tips on venous blood samples"

Link: https://www.youtube.com/watch?v=1Wv82hQCjrE

a) We need a needle, *vacutainer / container* and blood tubes.

b) A blood pressure cuff can substitute the *tourniquet / tongue.*
c) It is necessary to use *gowns / gloves.*
d) The needle should be *inserted / connected* into the vacutainer.
e) The needle hole must face *down / up*
f) The blood in the vacutainer is a *good / bad* sign.
g) The tourniquet is removed *after / before* withdrawing the needle.
h) It is *necessary / unnecessary* to set the needle guard before throwing out.

vacutainer

3. Look at verbs collected here and label the pictures presenting the procedure of taking blood test

Ask, Collect, Draw, Dispose, Disinfect, Insert, Introduce, Tie, Trace, Tap, Place, Put on, Instruct, Label, Explain, Fill, Remove, Remove, Seat, sterilize, Wash, Select.

tourniquet

1. _____yourself to your patient. _____ what you are about to do as you draw blood.
2. _____and _____your hands. _____ disposable gloves.
3. _____your supplies. _____ the appropriate needle.
You should have in front of you: blood collection tubes, a tourniquet, cotton balls, bandage or medical adhesive tape, and alcoholic wipes.
4. _____the patient in a chair. The chair should have an armrest to support the patient's arm but should not have wheels.
5. _____a tourniquet around the patient's arm.
6. _____the patient to make a fist. Avoid asking the patient to pump his or her fist.

7. _____the patient's veins with your index finger. _____ the vein with your index finger to encourage dilation.
8. _____the area that you plan to puncture with an alcohol wipe.
9. _____the needle into the vein. _____ the blood.
10. _____the tube. _____ and discard the tourniquet as soon as blood flow into the tube is adequate.
11. _____the needle. _____ a piece of gauze over the puncture site.
12. _____the patient to keep the gauze on for at least 15 minutes.
13. _____the tubes in view of the patient.
14. _____all waste and put your materials away.

Internal Anatomy of the Human Heart