

Blood film

It is a sample of blood that is tested on a specially treated slide. The slide is stained to allow the blood cells to be distinguished under a **microscope**. The specialist examines the slide under the microscope and looks at the **size, shape, and number** of different types of blood cells. They include red blood cells that carry oxygen from the lungs to the rest of the body, white blood cells that fight infection, and platelets that help the blood to clot. A blood smear can also detect the presence of **parasites** in an individual's body.

Use of blood film analysis

Blood Film analysis is used to diagnose and monitor conditions that affect blood cells. A blood film is also used to monitor **abnormal** results in a complete blood **count or CBC** analysis.

Reasons for performing a blood smear analysis

The individual was asked to perform a blood smear if he had abnormal results in the complete blood count, which is a routine test that measures many different parts of the blood. The doctor may ask the individual to perform a blood smear if the individual suffers from symptoms of a blood disorder, including the following:

Fatigue and exhaustion.

Unusual bleeding, including nosebleeds.

Jaundice, a yellowing condition of the whites of the eyes and skin.

Bone pain.

Pale skin.

Fever.

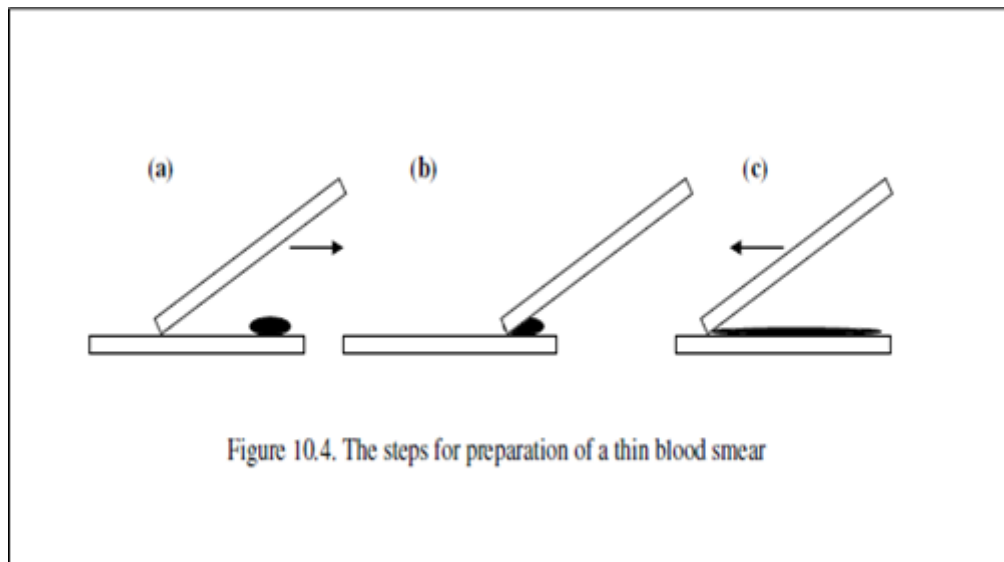
Anemia and low red blood cell count.

How to perform a blood smear analysis

This method is used for tissues that are **difficult to cut, especially** body fluids such as blood, cerebrospinal fluid, cerebrospinal fluid, **semen**, and **urine**, as well as parts of some tissues such as bone marrow. The swab works by spreading liquid between two slices or between a slice and its cover to obtain a thin film. The final step in preparing the film is to stain them. Several dyes can be used depending on the type of film. The film method represents a good method for diagnosis in diagnostic cytology and histological diseases. There are several methods for performing the film method, the most famous of which is the blood film, as follows:

- 1- A drop of blood is placed on the horizontal slide **after neglecting the first drop** of blood, about one inch away from the right end of the clean slide (the finger must be sterilized before and after taking the drop of blood).
- 2- Hold a second slide vertically so that its short edge makes an angle **of 45° with** the surface of the horizontal slide on which the drop of blood was placed. The upper slice is pulled slightly towards the drop of blood so that the edge is touching the back surface of the blood drop. Then the drop of blood will spread over the edge of the slice and into the corner between it and the horizontal slice.
- 3- Push the upper strip in the opposite direction to the side on which the drop of blood was placed, so that the blood is drawn on the

surface of the horizontal strip to form the blood smear. Pushing the upper strip slowly or using a large drop of blood leads to the concentration of blood cells along the edges or at the end of the smear.



- 4- Leave the slide containing the blood smear to dry in the air.
- 5- The slide containing the blood smear is placed on a special stand for staining above the laboratory sink.
- 6- Place several drops of **Leishman** stain, **Geimsa** stain, or **Wright** stain on the blood smear and leave it for 2-3 minutes, then add drops of distilled water to the dye and leave the mixture of water and dye **for 10 minutes**.
- 7- Wash the slide with **distilled water** until the **thin areas** of the swab appear in a red-pink color and leave it to dry in the air.
- 8- Examine under a compound light microscope using powers **X40** and **X100**. Focus your studies on the area called the **tail** of the swab, where the **thickness** of the swab is small compared to the head and middle of the swab, where the thickness of the swab is large.

