- قسم تقنيات الاشعة
- المحاضرة الثانية
- فسلجه عملي

Blood smear

Assist. Lecturer Doa'a Adil Almusawi
Assist. Lecturer **Ghadeer Talib**

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❖ A **blood film** or (**peripheral blood smear**): is a blood test used to look for abnormalities in blood cells.

The three main blood cells that the test focuses on are

1.**red cells**\ which carry oxygen throughout your body

2.white cells\ which help your body fight infections and other inflammatory diseases

3.platelets\ which are important for blood clotting

Purposes of Blood films: •

1.they are examined in the investigation of hematological (blood) disorders .

2. examining a blood smear is to check the size, shape, and number of three types of blood cells

3.and are routinely employed to look for blood parasites, such as those of malaria

Preparation or procedure

1.Blood films are made by placing a drop of blood on one end of a slide, and using a *spreader slide* to disperse the blood over the slide's length.

__The aim**__** is to get a region, called a **monolayer**, where the cells are spaced far enough apart to be counted and differentiated

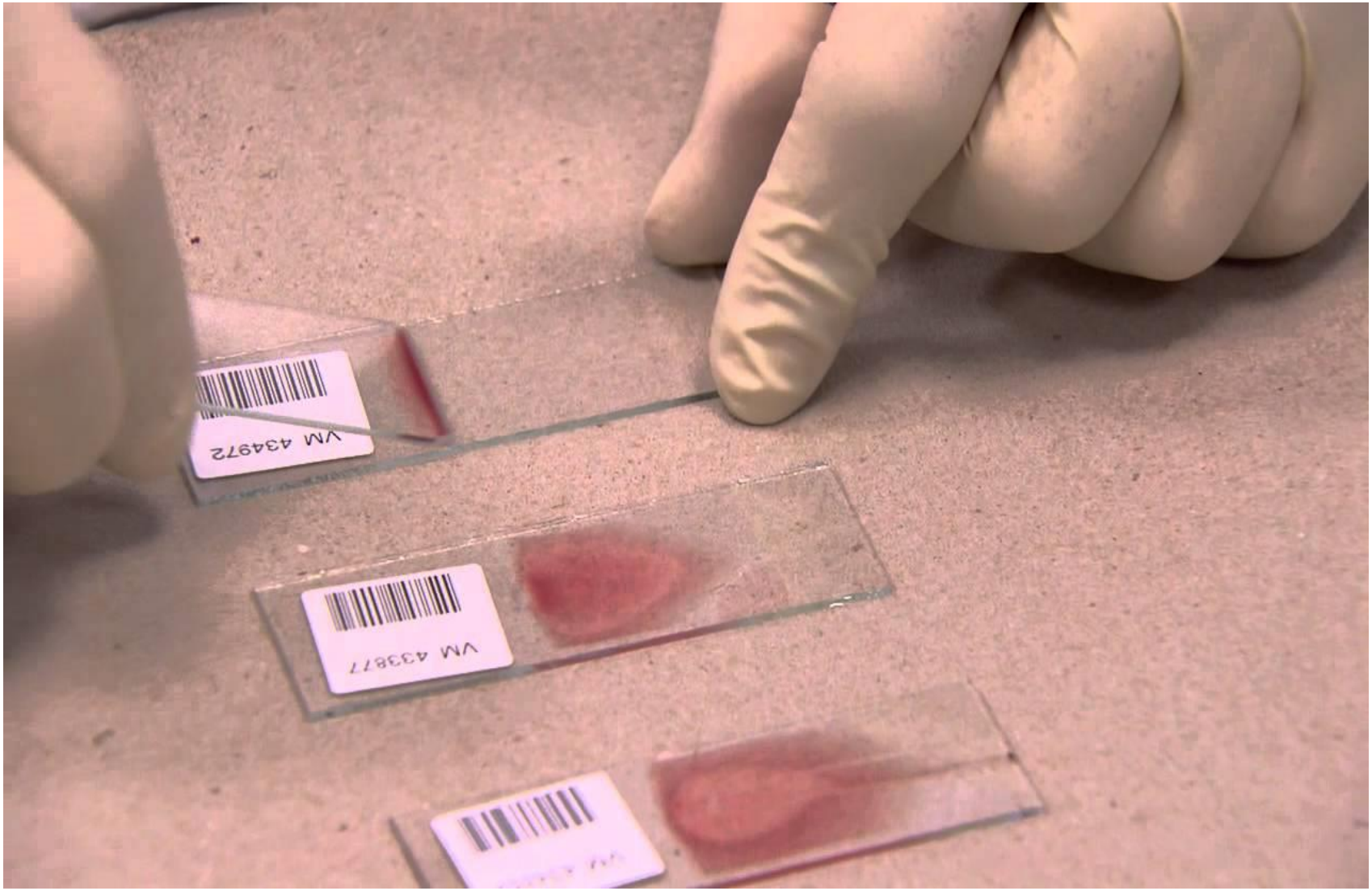
- 2. The slide is left to air dry, after which the blood is fixed to the slide by immersing it briefly in methanol.

❖ **The fixative is essential for good staining and presentation of cellular detail.**

3. After fixation, the slide is stained **to distinguish the cells from each other.**

- Routine analysis of blood in medical laboratories is usually performed on blood films stained with
- -**Romanowsky**,
- **Wright's**,
- **-** **Giemsa** stain
- . -**Wright-Giemsa combination stain**
- **-leishman stain** .

- .
- 4. After staining leave the slid 5 min and then washing it with distal water,
- the monolayer is viewed under a microscope using magnification up to **100x**. Individual cells are examined and their morphology is characterized and recorded.


VM 434972
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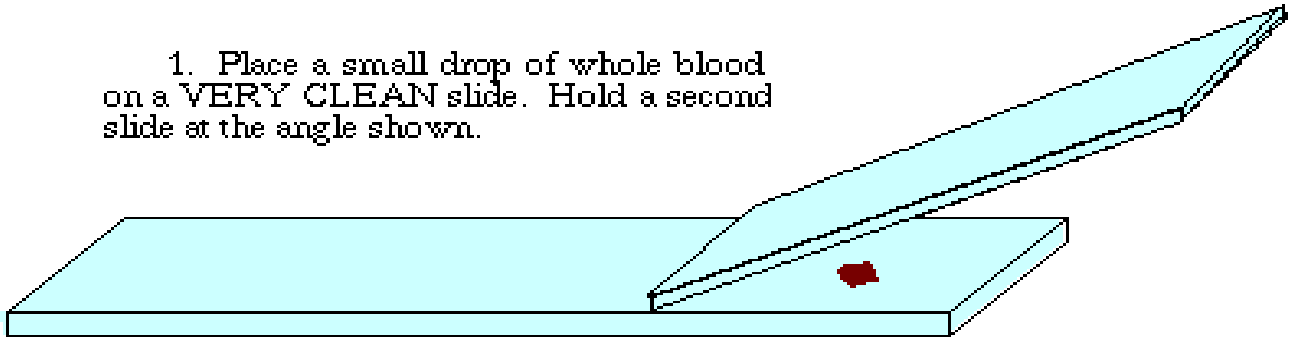
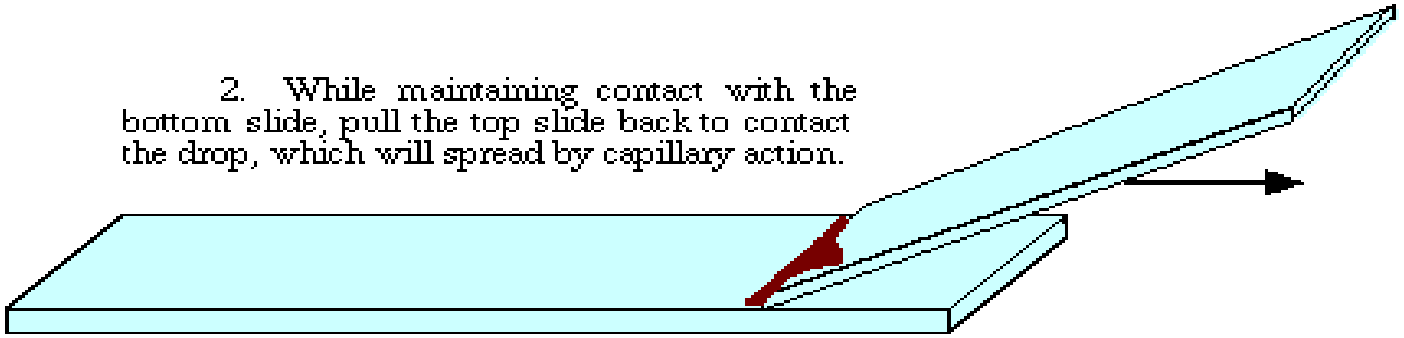
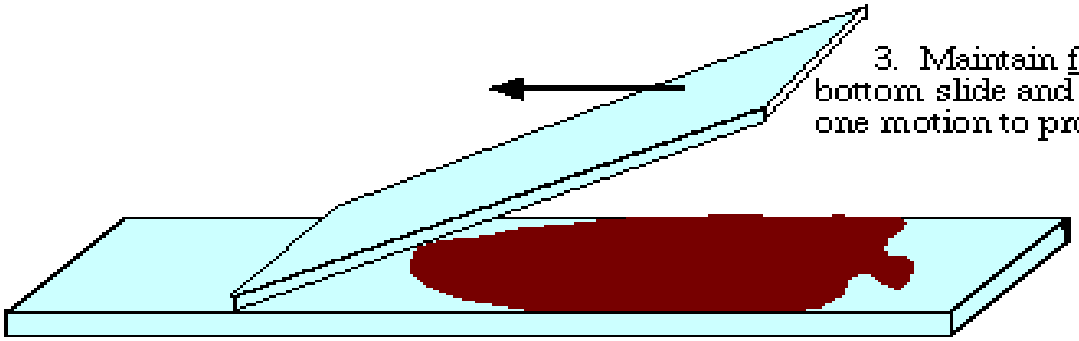
1. Place a small drop of whole blood on a VERY CLEAN slide. Hold a second slide at the angle shown.



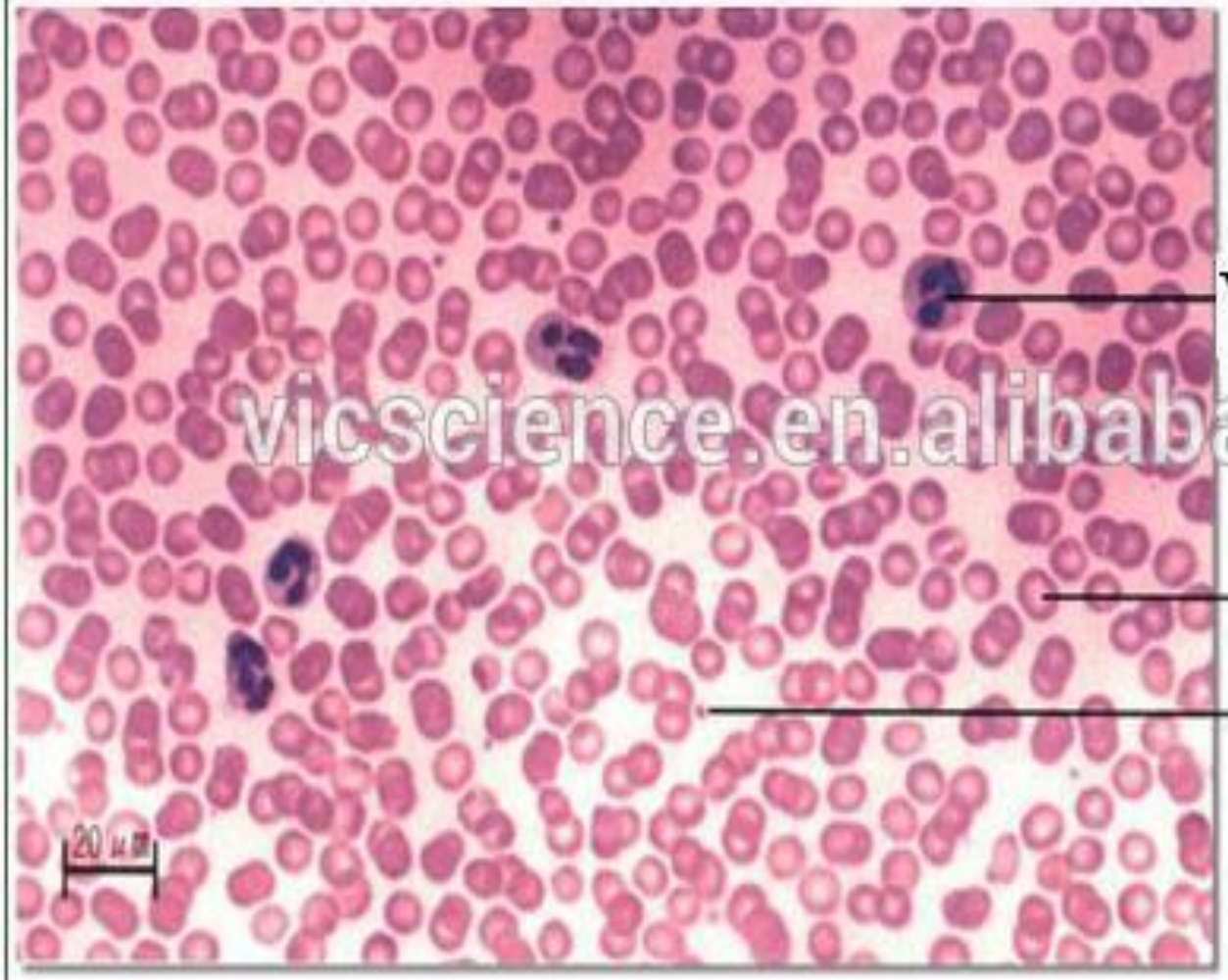
2. While maintaining contact with the bottom slide, pull the top slide back to contact the drop, which will spread by capillary action.



3. Maintain <u>firm</u> contact with the bottom slide and push the top slide in one motion to produce the smear.



Human blood smear



Thank you