



جامعة المستقبل

كلية التقنيات الصحية والطبية-قسم التخدير

Physiology Practical

Lecture: (8)

White blood cell count

اعداد

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General Objective of the Lecture:

Understand the importance of the white blood cell (WBC) count test and its relationship to infections in the body.

Behavioral Objectives:

- 1. Define the concept of the white blood cell (WBC) count.**
- 2. Identify the normal values for the white blood cell (WBC) count.**
- 3. Explain the factors that influence the white blood cell (WBC) count.**
- 4. Describe the procedures used to accurately perform the white blood cell (WBC) count test.**

الرجاء مشاهدة الفيديو

https://youtu.be/_y3_CvdiHnY?si=oJB3lQ-tVMdxxrD1



Individual activity

What is the role of white blood cells in the human body?



White blood cells counting

W.B.Cs: are a part of bodys immune system

W.B.Cs number =4000-11000 cell/cumm of blood.

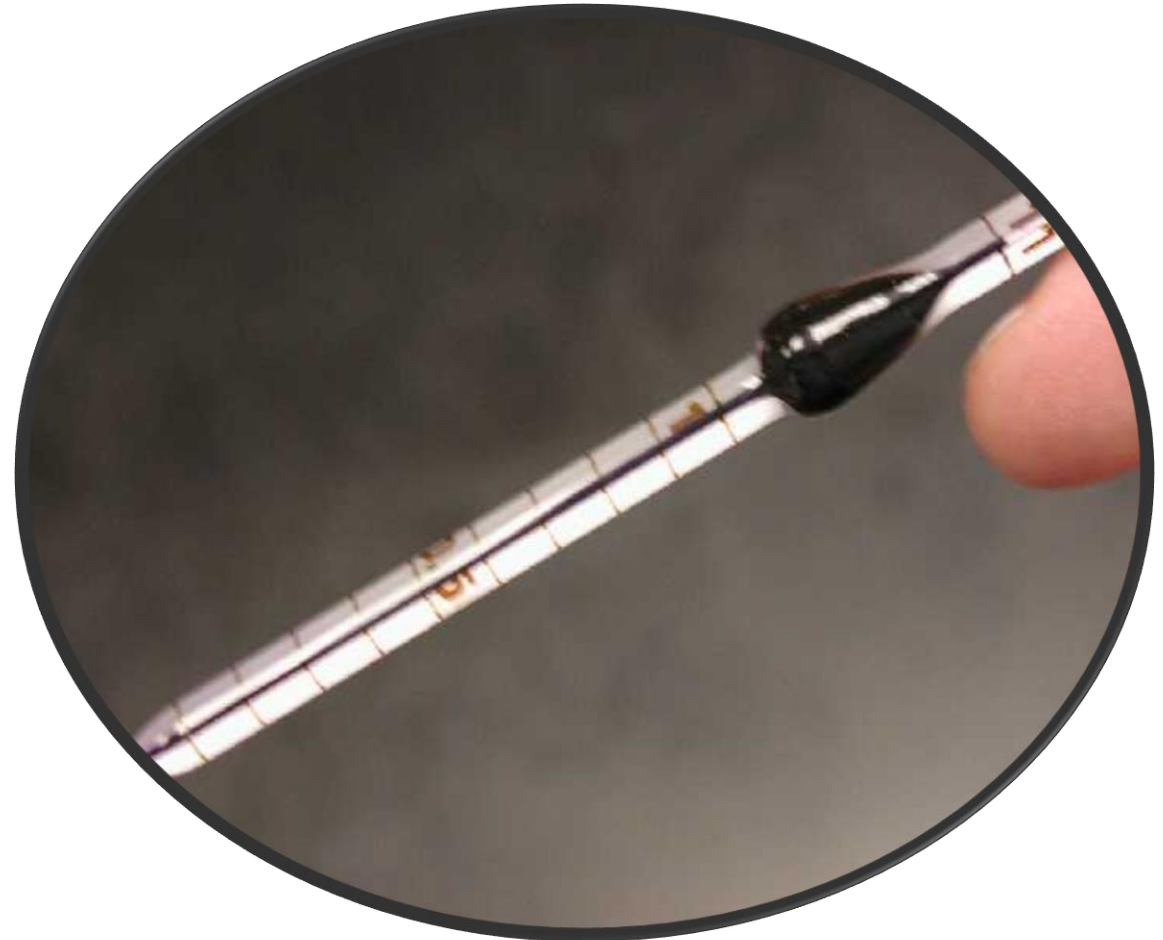
Principle

The blood is diluted 20 times with the WBCs diluting fluid.

Material and inst

- 1-Haemocytometer (counting chamber)
- 3-rubber tube with a plastic mouth piece for drawing the fluid into pipette.
- 4-thick cover glass
- 5-microscope
- 6-diluting fluid: Glacial acetic acid 1% with 1-2 drops of methyl blue to give a purple color

2-pipette for diluting blood (blub with bead)



ملاحظات

المثيل الأزرق: يُستخدم لتلوين نواة الخلية.

- حمض الأسيتيك الجليدي: يُستخدم لتدمير كريات الدم الحمراء.

procedure

- 1-draw blood by WBC pipette up to 0.5 mark**
- 2-dilute the blood by drawing the diluting fluid up to mark 11**
- 3-mix the blood with diluting fluid**
- 4-leave the chamber with sample for 2 minutes**
- 5-count 4 squares corner**

W

W

R

R

R

R

R

W

W

Calculation

WBCs = $N \times 50$ cell /cumm of blood

Leucocytosis = No of WBCs.

Lecopenia= No of WBCs

*Thank
You!*