



جامعة المستقبل

كلية التقنيات الصحية والطبية-قسم التخدير

Physiology Practical

Lecture: (9)

Erythrocyte Sedimentation Rate

اعداد

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General Objective of the Lecture:

The student recognizes the importance of ESR and its relationship to inflammation.

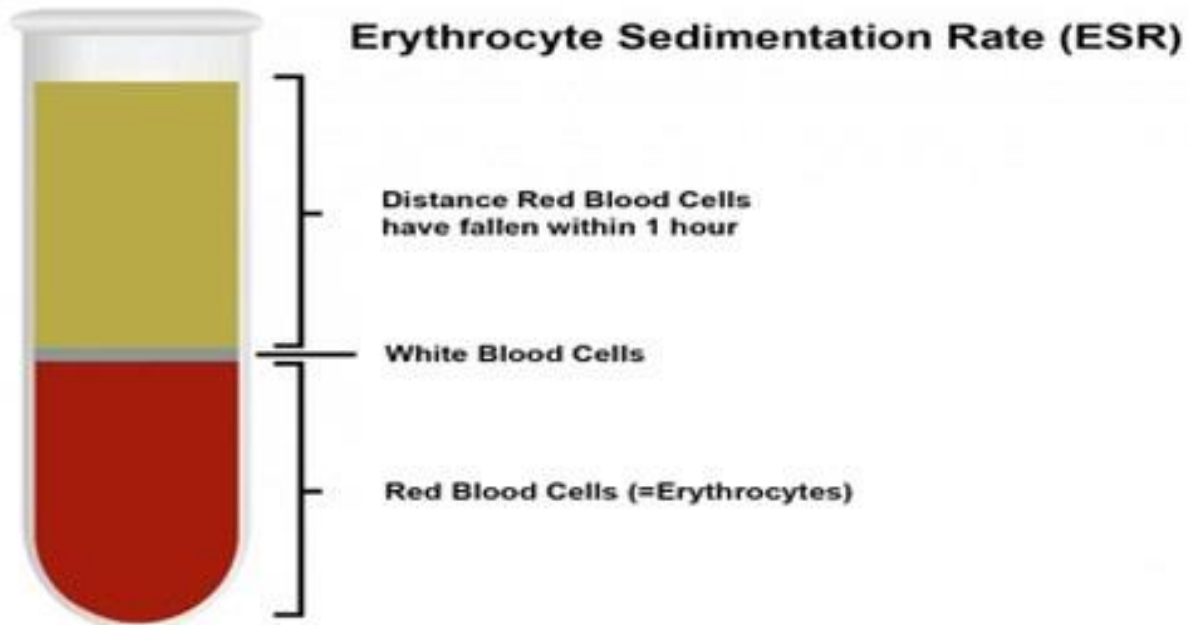
Behavioral Objectives:

- 1-Definition of E.S.R**
- 2- Definition of inflammation**
- 3-Normal value of E.S.R**
- 4- Enumerate the factors that increase the ESR**
- 5-Enumerate the factors that Decrease the ESR**

Erythrocyte Sedimentation Rate

Erythrocyte Sedimentation Rate (ESR): is a blood test that indirectly measures the degree of inflammation in the body.

- The distance of RBCs fall after one hour in(mm) is known as Erythrocyte Sedimentation Rate



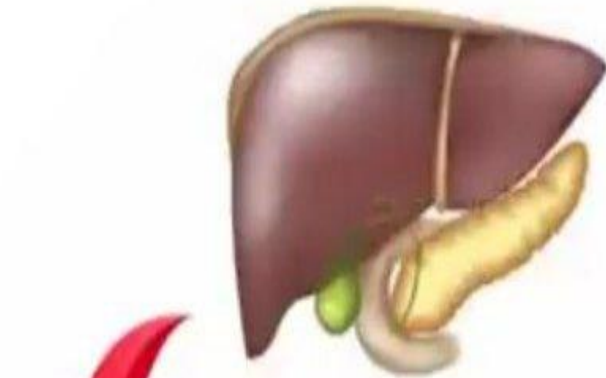
Definition of inflammation

Inflammation is your immune system's response to injury, infection, and many types of conditions, including immune system disorders, certain cancers, and blood disorders.

Group Activity:

What is the erythrocyte sedimentation rate (ESR), and what factors influence its values?





Inflammation

Increase protein
production

Normal value of E.S.R

- In male from 0 to 15mm/hr
- In female from 0 to 20mm/hr

Factors effect on ESR

Factor that increase E.S.R:

- 1.Cancer**
- 2.Bones inflammation**
- 3.Pregnancy**
- 4.Rheumatoid arthritis**
- 5.Anemia.**
- 6-Thyoid diseases**

Factor that decrease E.S.R

- 1.Polycythemia.**
- 2.Congestive heart failure.**

Evaluation

- **What are the factors that increase ESR?**
- **What is ESR ?**

*Thank
You!*