



# ESR

## Synonyms

Erythrocyte sedimentation rate

## Clinical Indication

The ESR is related to degree of red cell aggregation which occurs due to formation of rouleaux. In normal plasma, rouleaux formation is minimal and the ESR is low. An alteration of plasma proteins following tissue damage, and during inflammation and chronic pathological processes will increase ESR, providing a non-specific test of inflammation.

In acute phase response, ESR increase is slow and takes 4 to 6 days to subside after resolution of acute disease - CRP is a more sensitive early indicator.

ESR is helpful in the diagnosis and monitoring of two specific inflammatory diseases: temporal arteritis and polymyalgia rheumatica.

## Part of Profile / See Also

## Request Form

Combined Pathology manual Blood form or ICE request

## Availability / Frequency of Analysis

On request. May be requested urgently in suspected temporal arteritis.

## Turnaround Time

Same day

## Patient Preparation

None required

## Sample Requirements

### Specimen Type

Whole blood

### Volume

At least 2ml

### Container



Purple top (EDTA) tube.



Paediatric (EDTA) tube

**Neonatal 1ml or adult 6ml containers not suitable for analysis**

## Reference Range & Units

Sex	Age	Reference Range
Male	0-14 years	2-34 mm/hr
	15-50 years	2-28 mm/hr
	51-70 years	2-37 mm/hr
	>70 years	3-46 mm/hr
Female	0-14 years	2-34 mm/hr
	15-50 years	2-37 mm/hr
	51-70 years	2-39 mm/hr
	>70 years	3-46 mm/hr

## Interferences

ESR accuracy and reproducibility are poor if samples are stored for 4-6 hours at room temperature prior to analysis.

**Interpretation & Clinical**

**Decision Value (if applicable)**

A normal ESR does not exclude active disease. Many apparently normal elderly subjects will have raised ESR's and therefore as a screening test, ESR is of limited value in elderly patients. ESR is raised in pregnancy.

A falsely raised ESR may be seen in certain inflammatory conditions associated with low albumin.

**References**

ALIFAX operator manual

**Test code**

ESR

**Lab Handling**

Analyse from the primary tube. Test within 6 hours of collection if stored at room temperature.