

# High Sensitive C-Reactive protein (HS-CRP)

- It is consist on nonglycosylated polypeptide subunit.
- Consist of
- Synthesized by liver
- production is controlled by IL-6
- Binds to polysaccharide in many bacteria, fungi, parasites.
- It's called CRP as able to bind the cell wall of Streptococcus pneumoniae  
↓  
Cause agglutination

→ It is routinely monitored as an indication of infection & autoimmune d'se.

\* → Methods that have detect<sup>n</sup> limit 0.3 - 0.5 mg/L.

\* HS-CRP Assay : Automated Immunoturbidimetric & Immunonephelometric assay.  
↓  
so called high sensitivity as b'coz detection limit is < 0.3 mg/L.  
↓

→ sensitive & precise measurement at low conc. of CRP.

→ ↑ s. CRP conc. → +vely ass. & Risk on future coronary event, like Coronary Artery d'se, cerebrovascular d'se,

# Peripheral Artery disease.

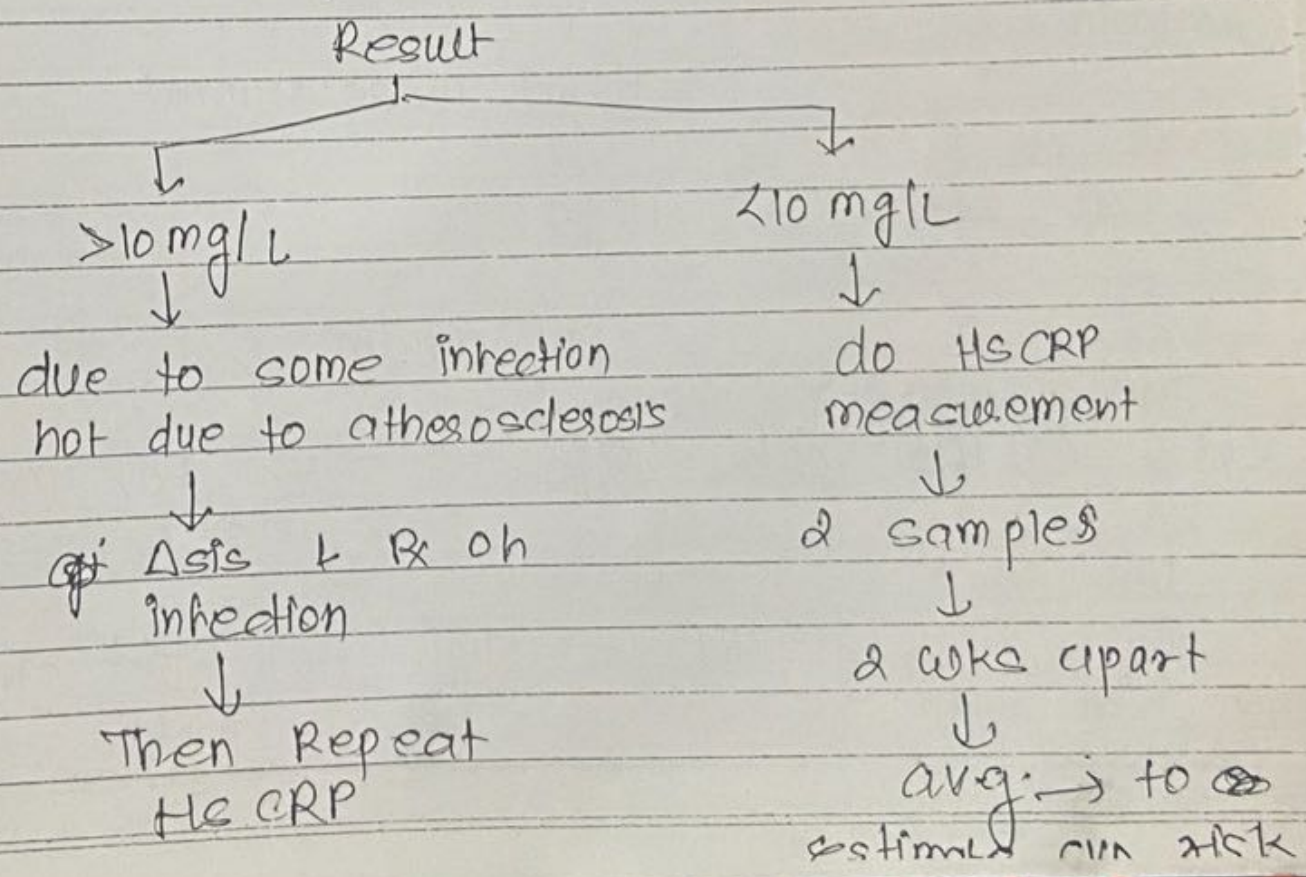
→ ↑ CRP causes ↑ Endothelial damage → Atherosclerosis.

→ Atherosclerosis is also infection → also lead to ↑ CRP.

→ So CRP also ↑ in infection as well as it lead to damage → Atherosclerosis

→ Statin & Aspirin → causes ↓ hCRP  
↓ ↓  
due to anti-inflammatory effect.

- \* Random sample is required.
- \* less Biological variation.



\* Reference interval :-

CRP result

< 1 mg/L

→

Risk of ASCVD

normal / No risk

1 to 3 mg/L

→

moderate Risk

> 3 mg/L

→

High risk.

\* Guideline to do when to do HS CRP :-

↳ given By A

① High Risk, Asymptomatic → No Role to do HS CRP

② low risk, Age < 50 yrs for male &  
< 60 yrs for female

↓

No role on doing HS CRP

③ Intermediate risk, age < 50 yrs - male  
age < 60 yrs - female

↓

HS CRP measurement

↓

High

↓

start statin Rx

④ low risk, age > 50 yrs for male  
> 60 yrs for female

↓

HS CRP → High → start statin

Rx