

## \* Anti hyperlipidemia

Hyperlipidemia - ↑ level of lipids (fats) in the blood, including cholesterol and triglycerides

⇒ ↑ risk of coronary artery disease, cardiovascular disease, peripheral vascular disease.

⇒ So hyperlipidemia is caused by ↑ level of LDL (Low density lipoprotein) and ↑ triglycerides and ↓ HDL (High density lipoprotein)

↑ level of LDL & Triglyceride



accumulation in the blood is ↑



Due to which persist in the blood flow



Coronary artery disease & peripheral vascular disease occurs

## Classification

① HMG CoA Reductase Inhibitor — Atorvastatin  
Lovastatin  
Fluvastatin  
Pitavastatin  
Pravastatin  
Rosuvastatin.

② Nicotinic acid — Niacin

③ Fibrates — Gemfibrozil  
Fenofibrate

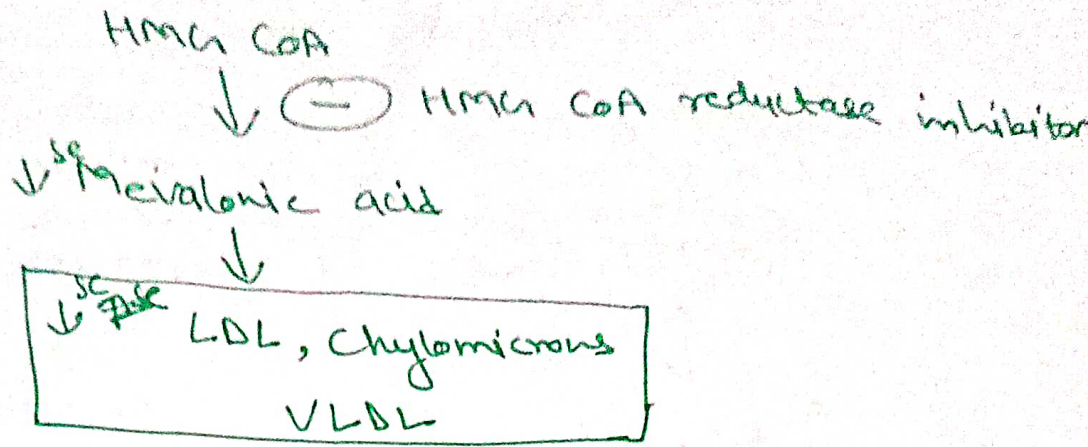
④ Cholesterol absorption Inhibitor — Ezetimibe

⑤ Bile acid sequestrant — Colestipol  
— Cholestyramine.

⑥ PCSK9 inhibitors — Evolocumab  
Alirocumab

⑦ Omega-3 fatty acid — Docosahexanoic acid  
— Eicosapentanoic acid  
> Icosapentamide

① HMG CoA Reductase inhibitor -

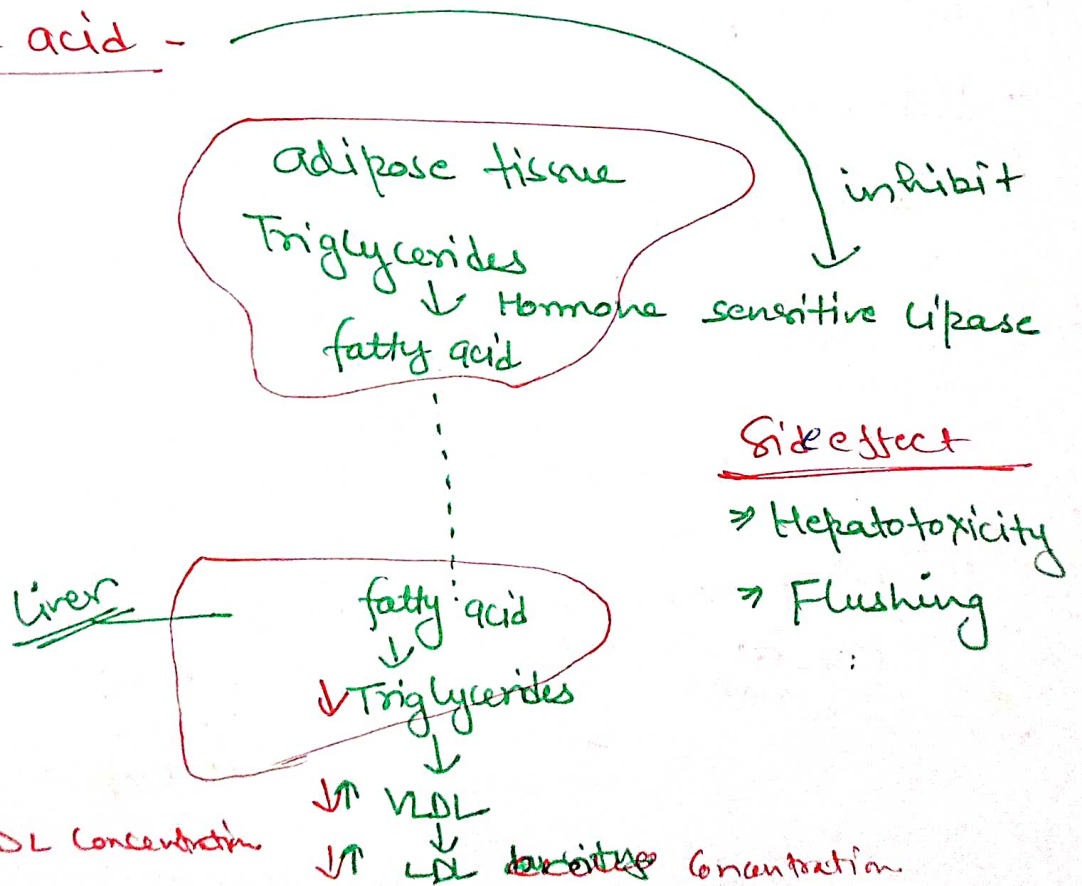


⇒ ↑ HDL

Side Effect

⇒ Hepatotoxicity

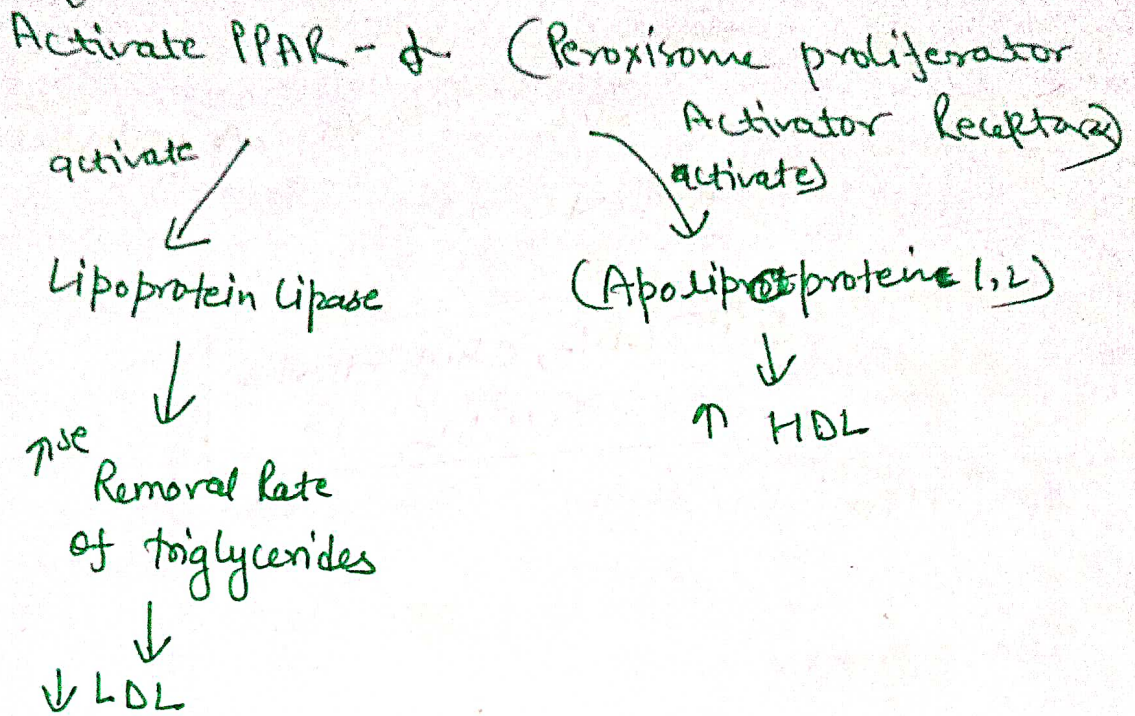
② Nicotinic acid -



Side effect  
⇒ Hepatotoxicity  
⇒ Flushing

⇒ ↑ HDL concentration  
⇒ ↓ VLDL  
⇒ ↓ LDL concentration

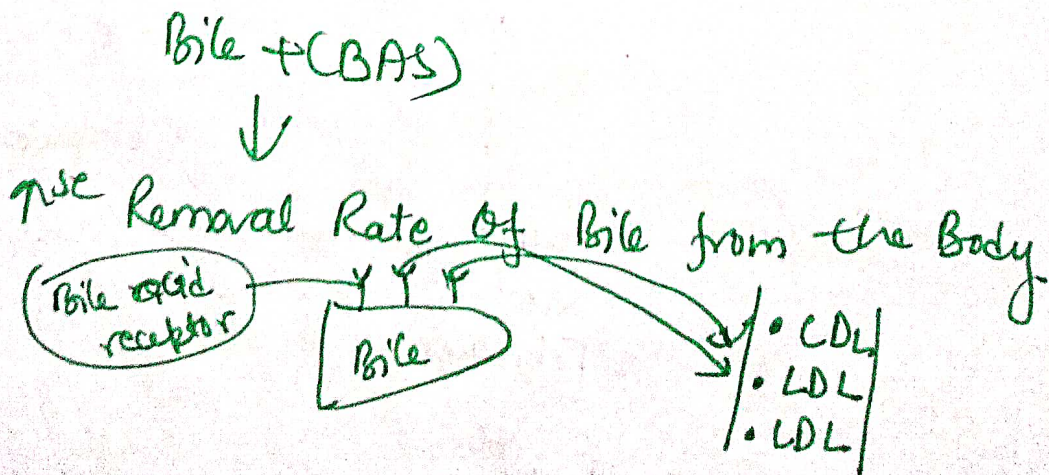
### ③ Fibrates



### Side Effect -

- GI symptoms
- Hepatotoxicity
- ⇒ Rhabdomyolysis

### ④ Bile acid sequestant

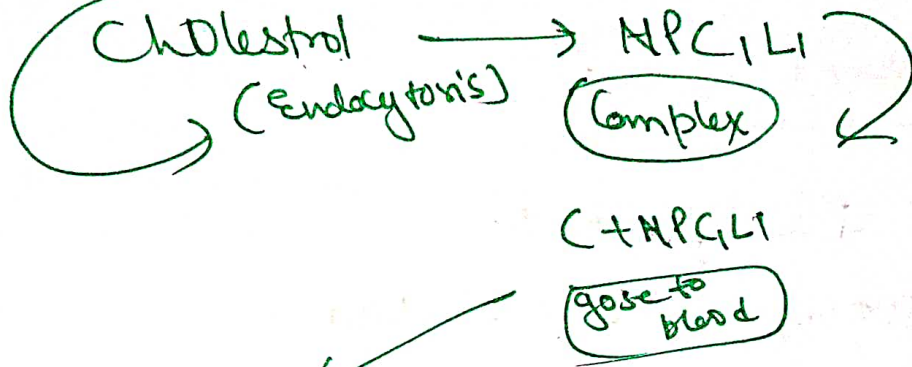


So, level of LDL is decreased from the plasma and inc the HDL

### Side effect -

- Bloating
- Nausea
- ↓ fat soluble vitamin absorption.

### ⑤ Cholesterol absorption inhibitor -

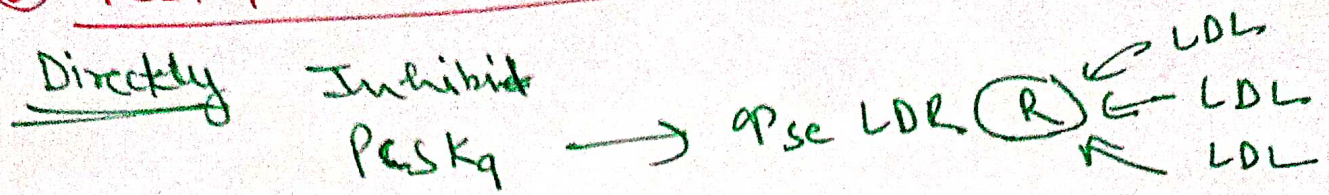


Clathrin AP<sub>2</sub>  
Help to Absorption  
through endocytosis  
Process

### Side Effect

- GI disturbance.
-

## ⑥ PCSK9 Inhibitor



More receptors or LDL will bind more LDL and the concentration of LDL will be reduced in blood.

## Side effect $\rightarrow$

- $\rightarrow$  Flu like symptoms
- $\rightarrow$  Neurocognitive disturbance

## ⑦ Omega 3-fatty acid $\rightarrow$

↓<sup>sc</sup> triglyceride level

↓

↓ VLDL

↓

↓ LDL conc<sup>n</sup>

So ↑<sup>sc</sup> HDL concentration

## Side Effect -

- GI disturbance
- Diarrhoea.
- Fish like taste.
- Nausea.