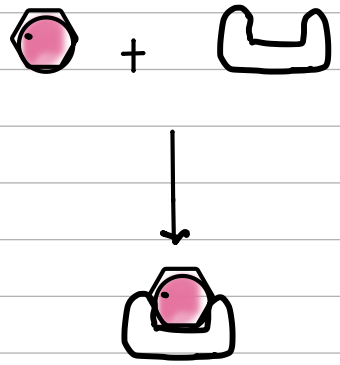
Chapter 24
Lipoprotein

Lipoprotein - ……+ ……



Types of lipoprotein

1. Chylomicron (CM)
2. Very low density lipoprotein (VLDL)
3. low density lipoprotein (LDL)
4. Intermediate density lipoprotein (IDL)
5. High density lipoprotein (HDL)

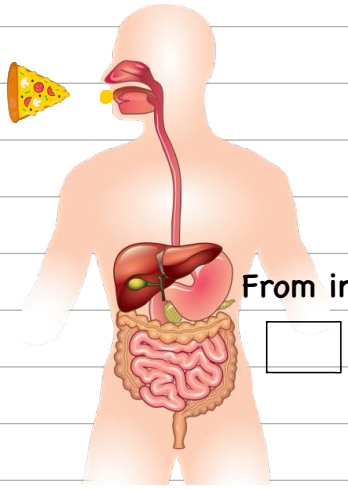
Density order

Electrophoresis order

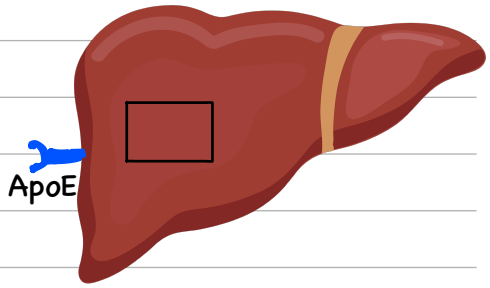




Chylomicron functioning



From intestine



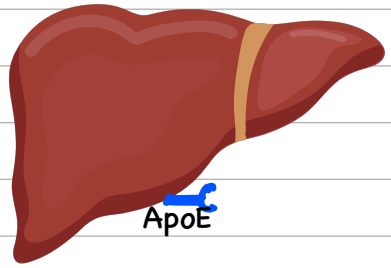
Tissue

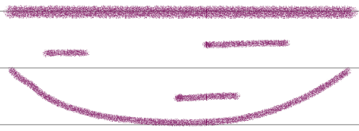
LPL -lipoprotein lipase

Chylomicron compostion - ……+ ……

Density -

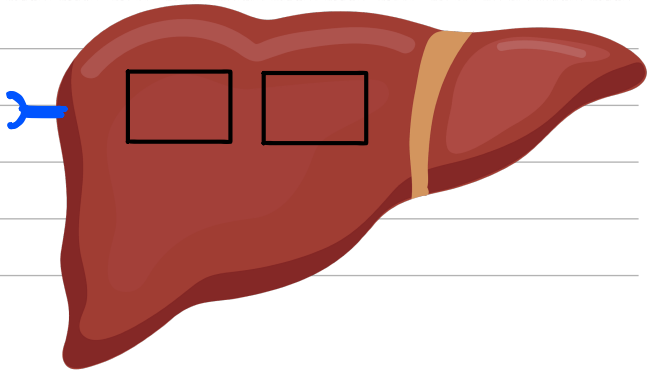
VLDL functioning



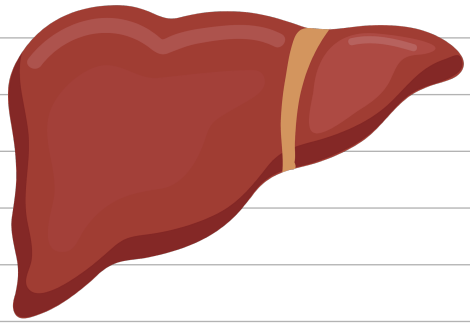


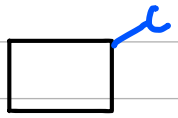
Tissue

IDL functioning

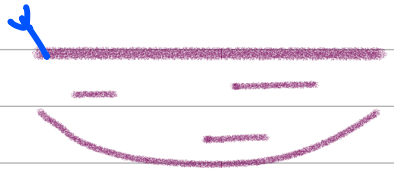


LDL functioning





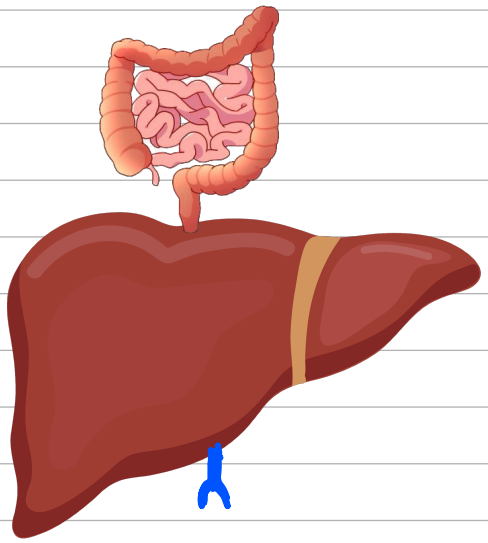
ApoE



Tissue

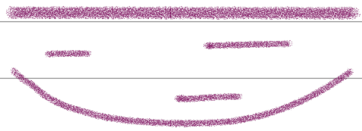
HDL functioning

Se



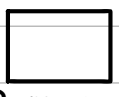






Tissue





Remanant
VLDL



Remanant
CM

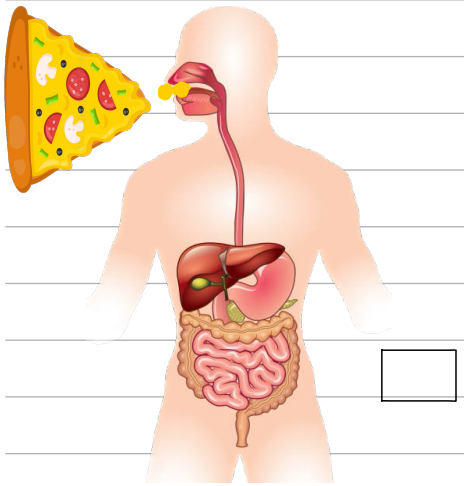
ABC-A1- ATP binding cassatte protein A1

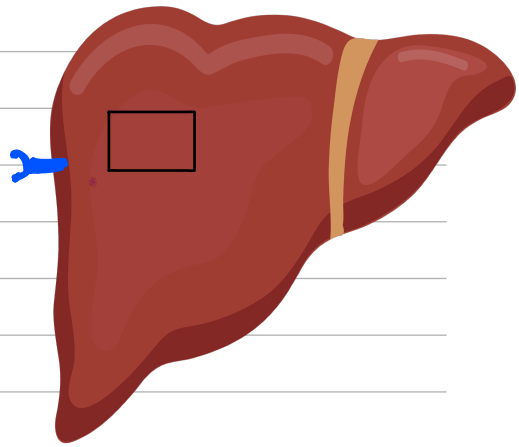
CETP- Cholesterol ester transfer protein

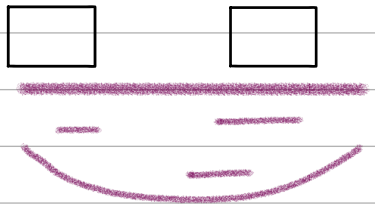
LCAT -Lecithine cholesterol acyl transferase

Clinical co-relation = Lipid disorders

Type 1 lipid disorder







Tissue

Patho-

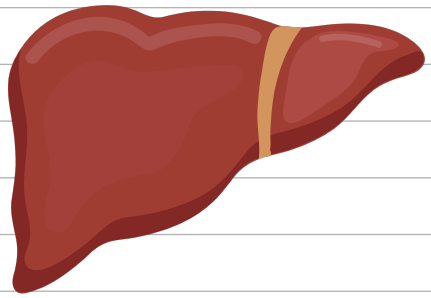
C/f -

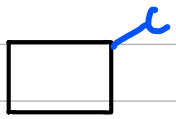
Inheritance -

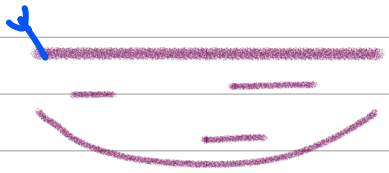
So a/c/a -

Type 2 lipid disorder

Patho-











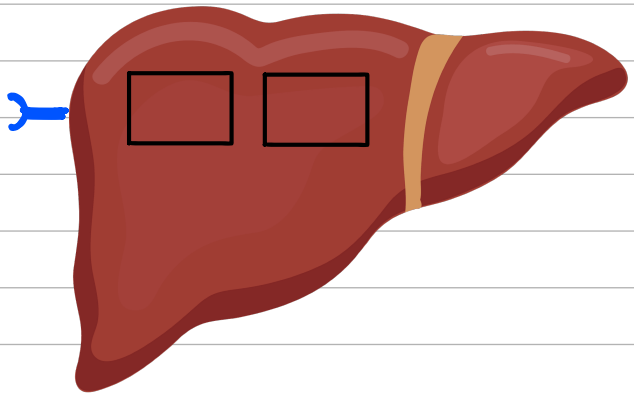


C/f-

Inheritance pattern -

So a/c/a-

Type 3 lipid disorder



Patho -

C/f-

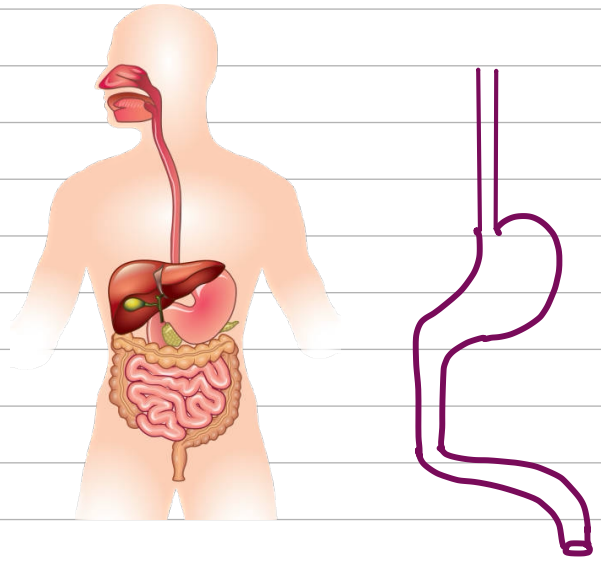
Inheritance pattern -

Type 4 lipid disorder

Patho- overproduction of …… by ……

Abetalipoproteinemia

Patho -



Loss of fat -

+

Loss of

Pharma connection

Cholesterol synthesis inhibitor -

Cholesterol absorption inhibitor from intestine -

PPAR-α Activator - …… triglyceride & …… HDL -

Niacine - ……HDL / ……LDL / ……TG

Summary

☆ Match the following

a) type 1 lipid disorder	1 - overproduction of VLDL
b) type 2 lipid disorder	2- LDL receptor defect
c) type 3 lipid disorder	3- steatorrhea
d) type 4 lipid disorder	4- pancreatitis
e) abetalipoproteinemia	5 - remnant removal disease

a……b……c……d……e……

☆ Match the following

a) B-Hydroxy butyrate	1 - fruity smell of breath
b) rothera test	2- RLS of cholesterol synthesis
c) acetone	3- RLS of Keton body synthesis
d) HMG coA synthase	4 - most common keton body
e) HMG coA reductase	5- 2° bile acid
f) lithocholic acid	6 -RLS bile acid synthesis
g)7 - α-Hydroxylase	7 -detection of keton body
h) lipoprotein a	8) marker of cholestatsis
i) liporprotein x	9) marker of atherosclerosis

a……b……c……d……e……f……g……h……i……