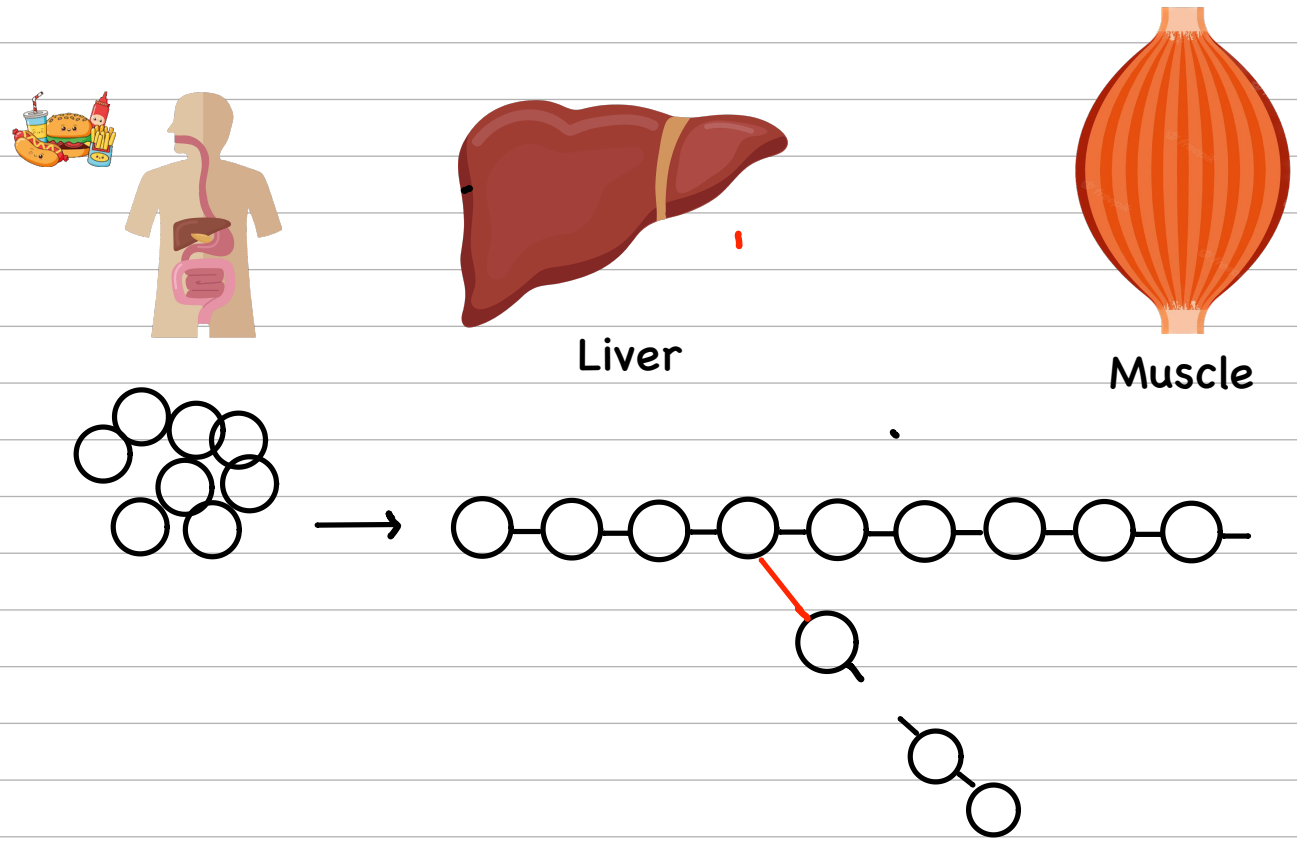
Chapter 16
glycogen metabolism

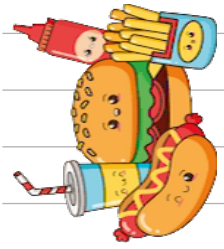
Definition of glycogen



Glycogen metabolism

Glycogen synthesis - seen during - …… state.
Called as

Glycogen breakdown - seen during - …… state.
Called as



Point to remember from glycogen metabolism

- Glycogenesis
  RLS -

- Glycogenolysis
  RLS- Coenzyme-

- Last product of glycogenolysis - liver -
  Muscle-

- …… enz is physiologically absent in muscle

- Only enzyme which is common in glycogenesis and glycogenolysis

↓

……

Glycogen metabolism disorder

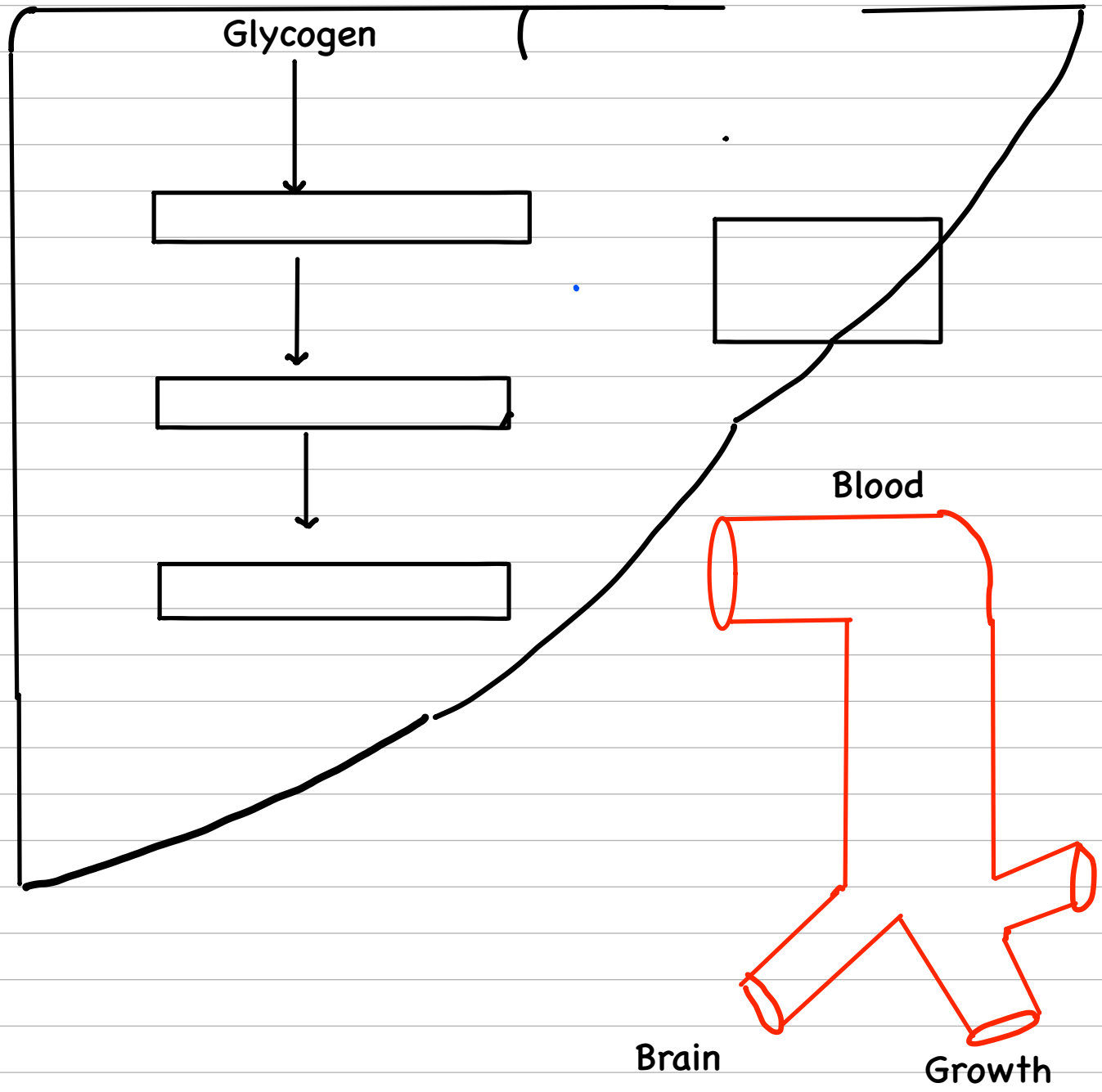
Glycogen storage disease	Enzyme deficiency
1 - von gierke disease	Glu - 6- phosphatase
2 - pompe's disease	Acid maltase
3 - Cori's disease	Debranching enzyme
4 - Anderson's disease	Branching enzyme
5 - Mcardle's disease	Muscle glycogen phophorylase
6 - Her's disease	Hepatic glycogen phophorylase

- Overall most common GSD -
- Most common GSD in adults -

Type 1 GSD - Von gierke's disease

- Due to deficiency of -

Clinico-pathogenesis





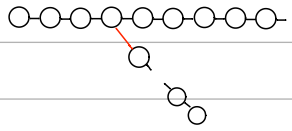
Liver size

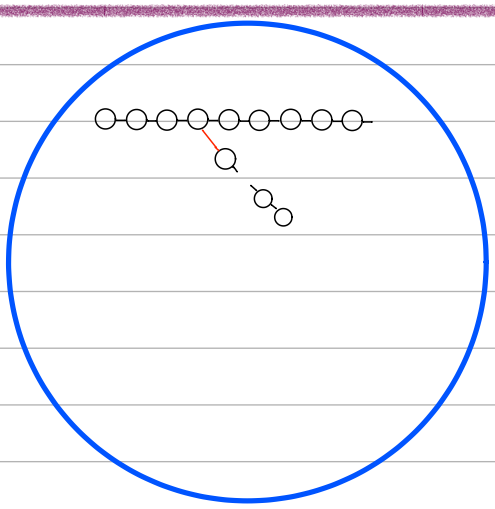
Kidney size

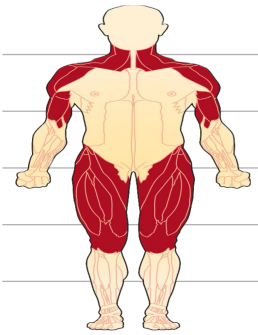
Type 2 GSD - Pompe disease

Due to deficiency of -

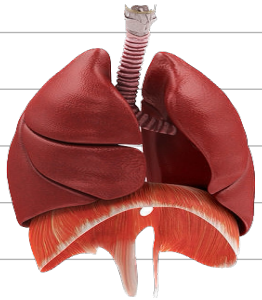
Lysosomal - α - 1,4- glucosidase

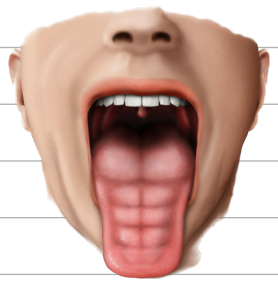










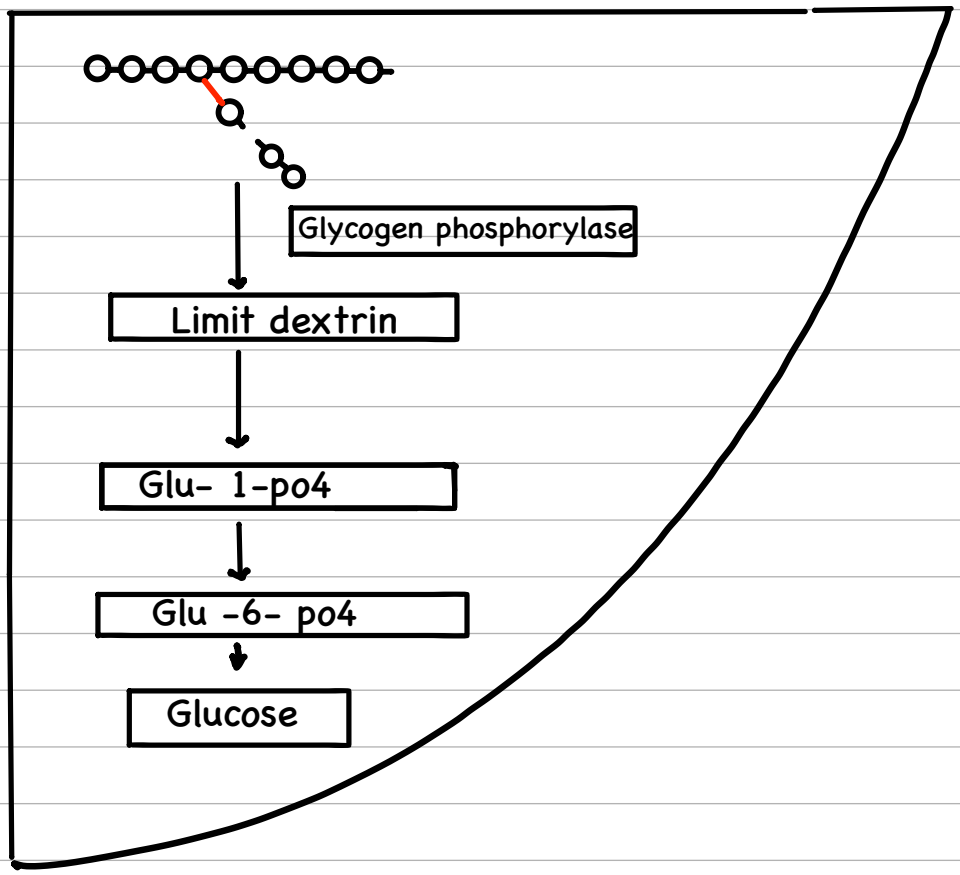


Ecg-

☆ Type 3 Cori disease

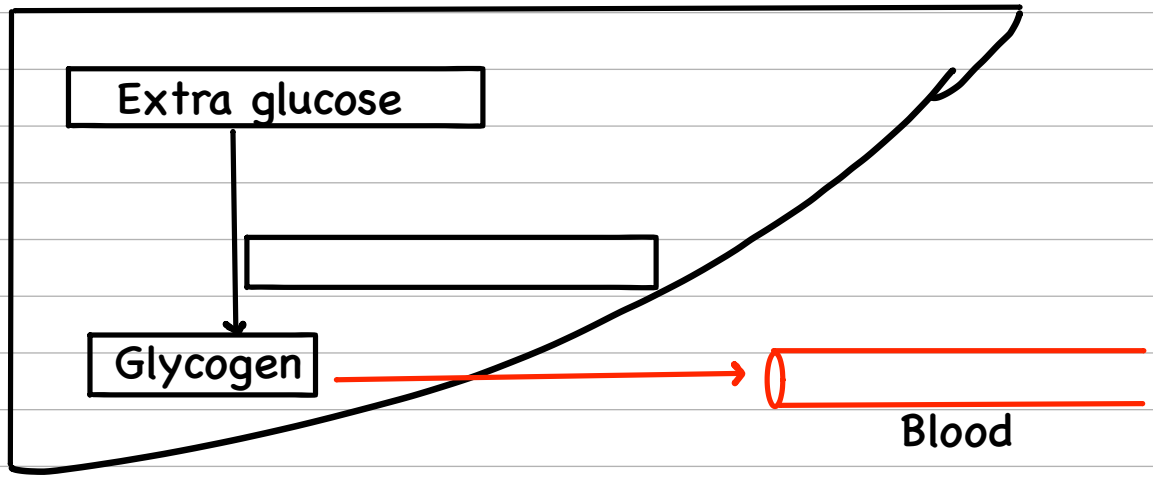
Due to deficiency of ……

C/f -



☆ Type 4 Anderson disease

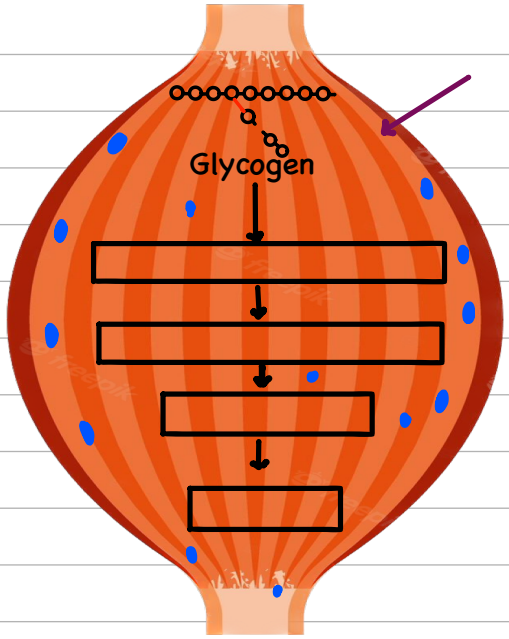
Due to deficiency of ……

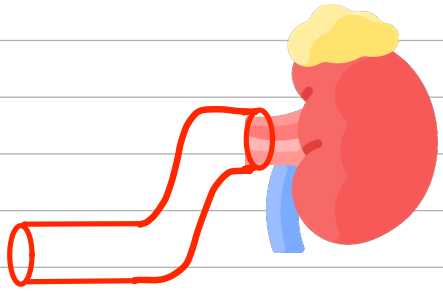


☆ Type 5 Mcardle's disease

Due to deficiency of ……



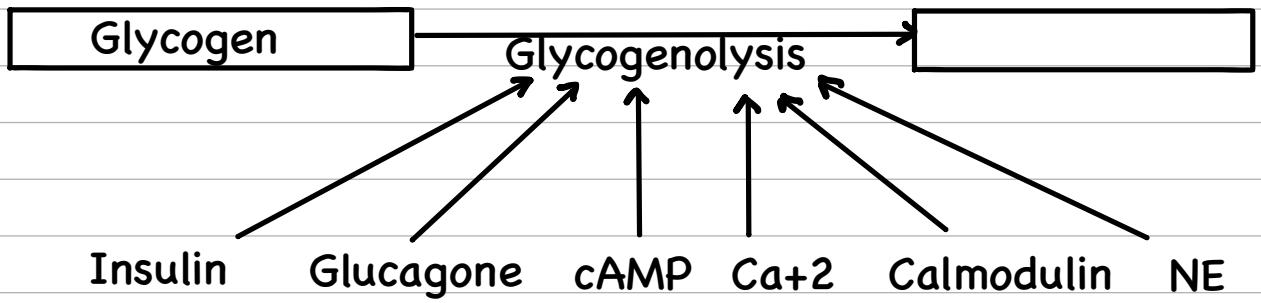






Extra mile

☆ Regulation of glycogenolysis



Summary

☆ Glycogen is a polysaccharide of …… , found in …… & ……

☆ Match the following

a)Glycogenesis - RLS	1) glycogen phosphorylase
b) Glycogenolysis RLS	2) phospho gluco muatse
c) Enzyme common in glycogenesis & glycogenolysis	3) glycogen synthsase

☆ Which GSD never effects muscle -

☆ …… enz if physiologically absent in muscle.

☆ Match the following

A) von gierke disease	1) exercise intolerance
B) pompe dis.	2) limit dextrinosis
C) cori disease	3) fasting hypoglycemism in child
D) anderson disease	4) cardiomyopathy
E mcardle's dis.	5) branching enz deficiency

A……B……C……D……E……

