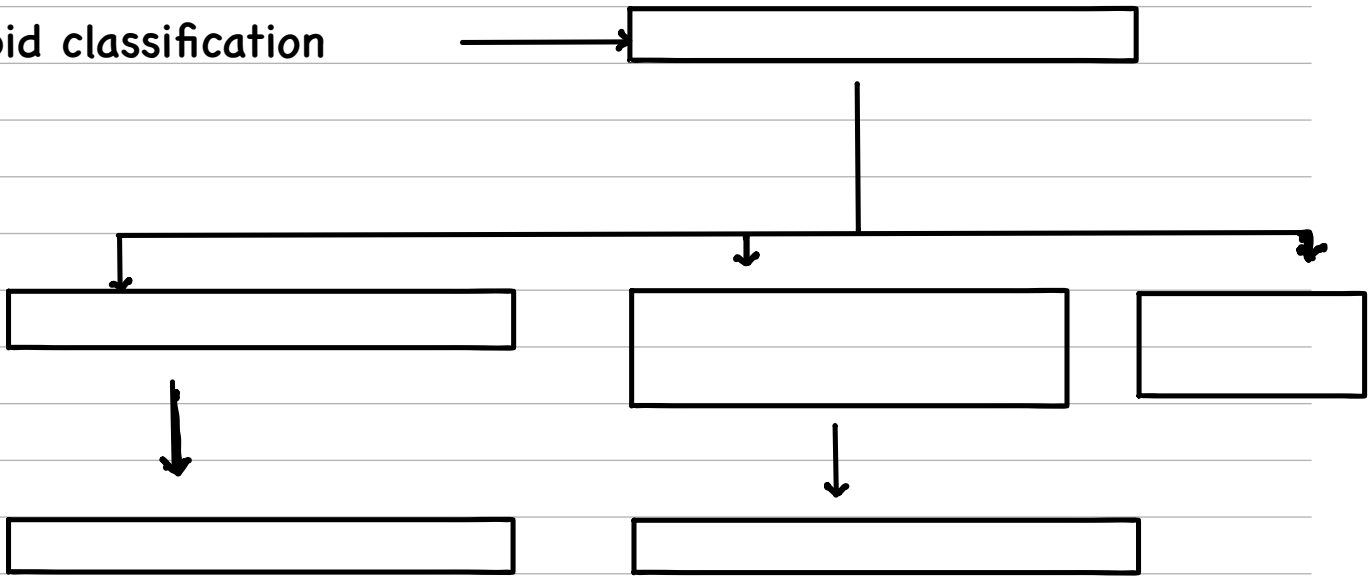
Chapter 20
Classification of Fatty acid and Lipid

What is Fatty acid

What is lipid

Lipid classification

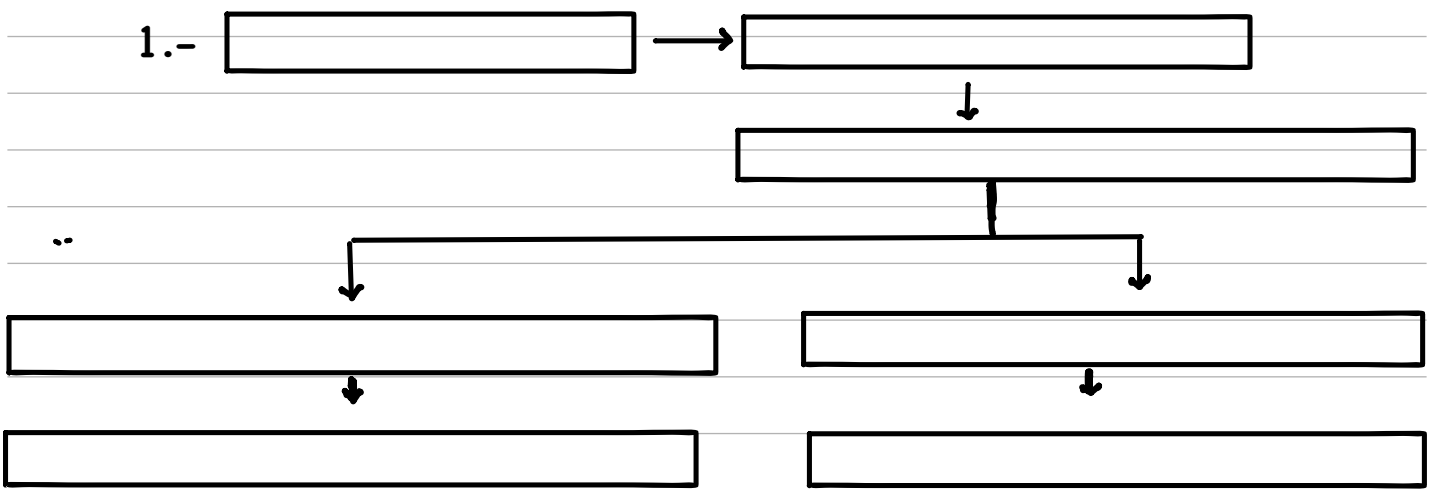


Example of lipid

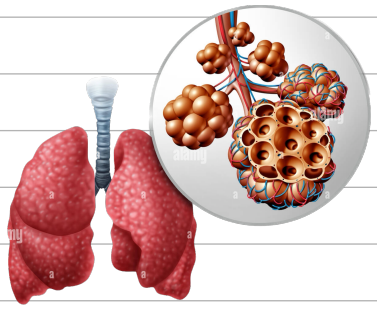
Simple lipid -

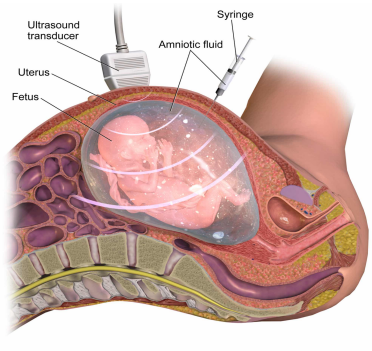
Complex lipid -

1.-



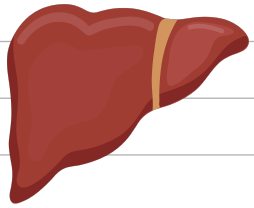
☆ Clinical co-relation





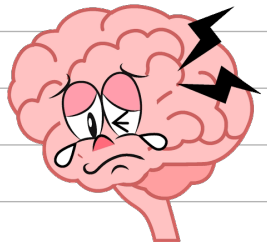
Lung maturation test

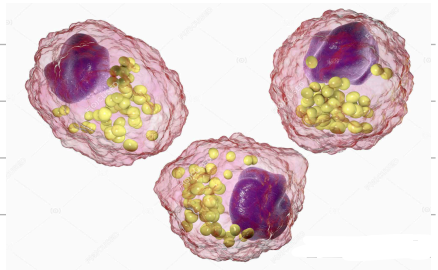
Sphigomyelin → [ ] → [ ]





Vertical Gaze





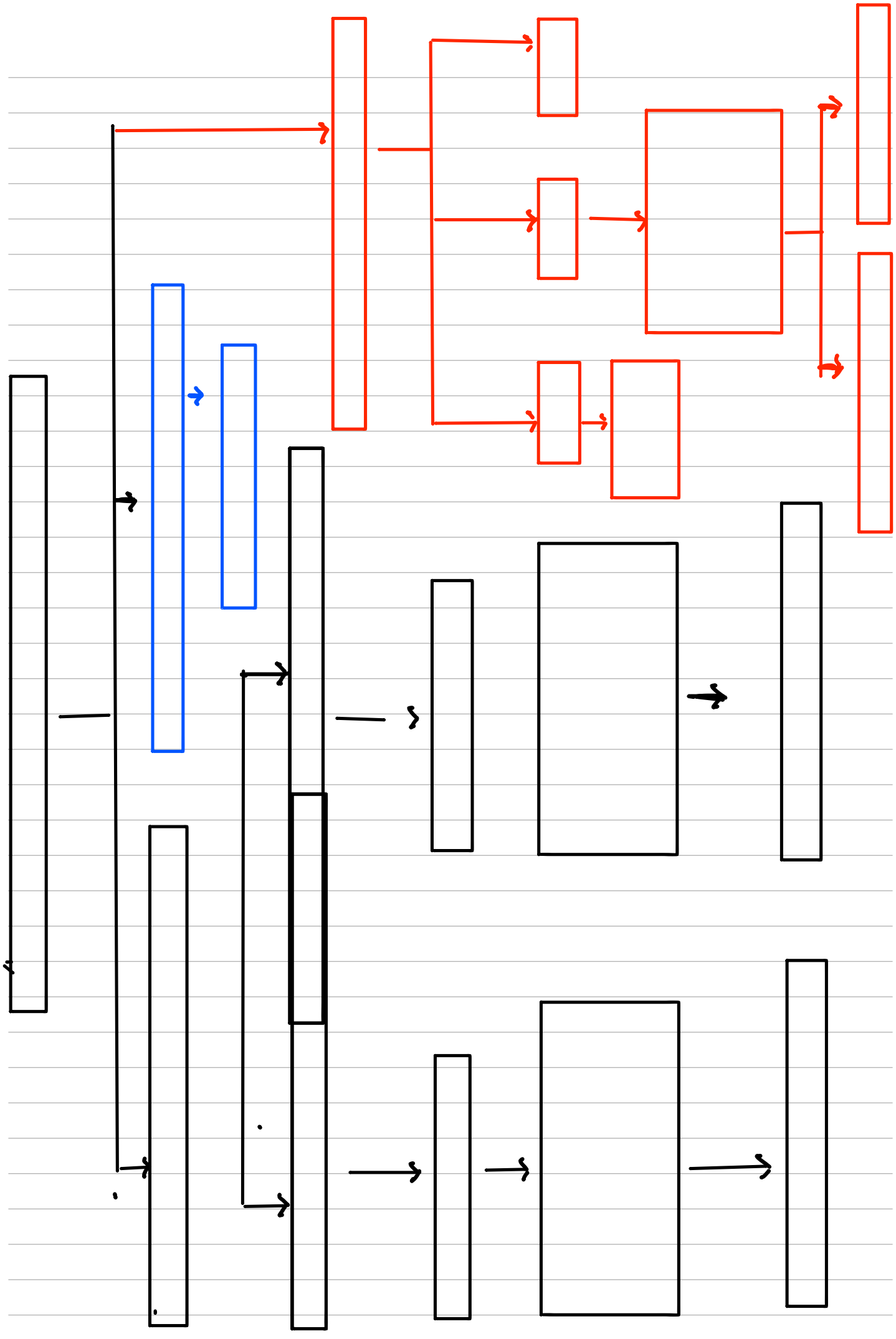
2 - [ ] → [ ]

↓

[ ]

↓

[ ]



All this disesse as a group called as -

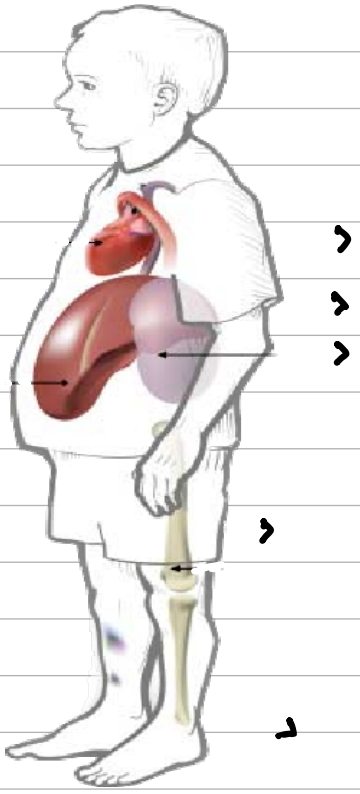
Most common sphingolipidosis-

All are autosomal recessive except -

All have hepatospleenomegaly except -

Clinical co-relation

Gaucher disease

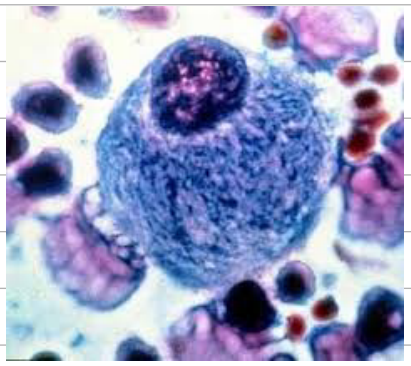


Glucocerebroside

B- glucocerebrosidase

Metabolites

On bone marrow biopsy



Fabry disease

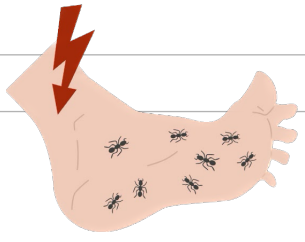


Galactocerebroside

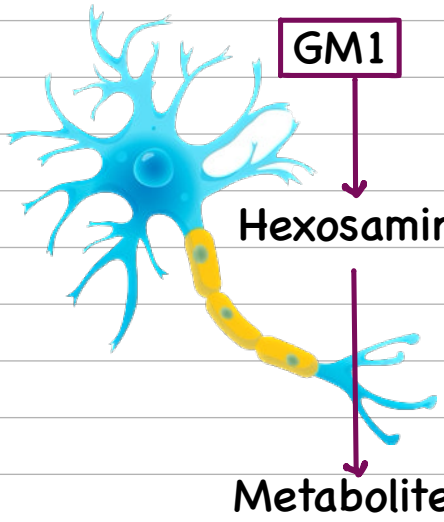
α - galactocerebrosidase

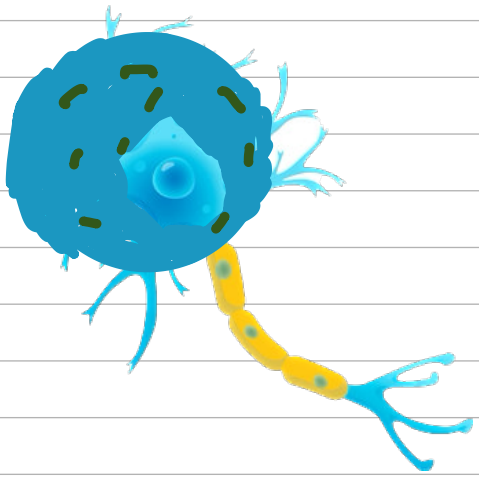
Metabolites

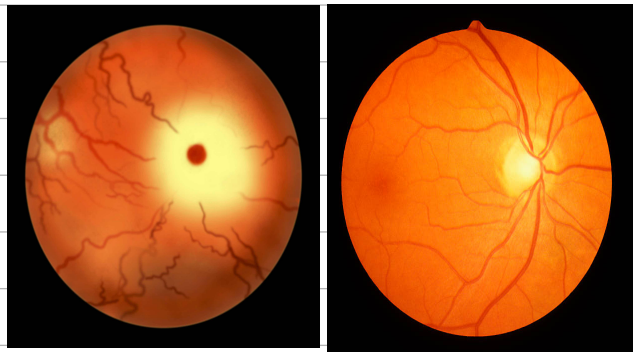




Taysach's disease







3rd eg . of complex lipid - lipoprotein

Derived lipid -

Lipid
(Triglyceride)

Water soluble Products

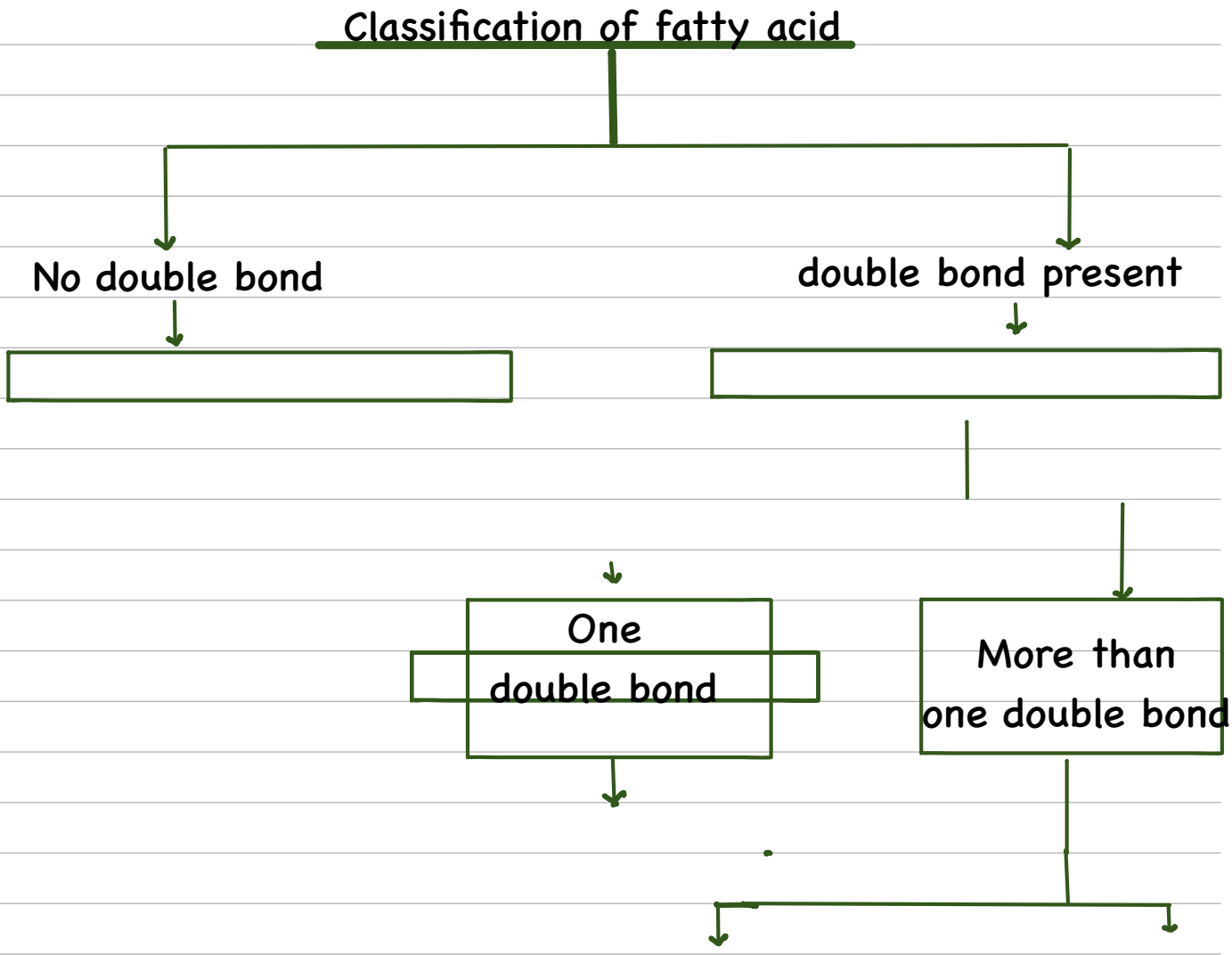
Water insoluble Products

Fatty acid

C-C-C-C-C-C-C-COOH → No double bond

C-C-C-C-C-C=C-COOH → One double bond

C-C-C=C-C-C=C-COOH → More than one double bond



☆ Most essential FA-

☆ Semi-essential FA -

☆ FA which is found in breast milk and help in brain maturation -

☆ Cardio protective fatty acid -



Summary

Match the following

a) neimann pick disease	1) x link recessive
b) gaucher disease	2) surfactant production
C) fabry disease	3) def. Of hexosaminidase A & B
d) taysach disease	4) omega -3 FA
e) lecithine	5) def. of B-Galactocerebrosidase
f) cardio protective FA	6) anemia + spleenomegaly
g) most essential FA	7) cherry red spot + neuronal thickening
h) sandhoff disease	8) foam cell
i) krabbe disease	9) linoleic acid

a……b……c……d……e……f……g……h……i……