

27/8/20

Animal Fat

1. Relatively rich in saturated fatty acid
2. Solid at room temp.
3. Low Iodine value
4. Stored mainly in bone marrow & liver

3. Red meat etc.

Plant Fat

1. Rich in unsaturated fatty acid
2. Liquid at room temp.
3. Very high Iodine value.
4. Store mainly in seeds & fruits.

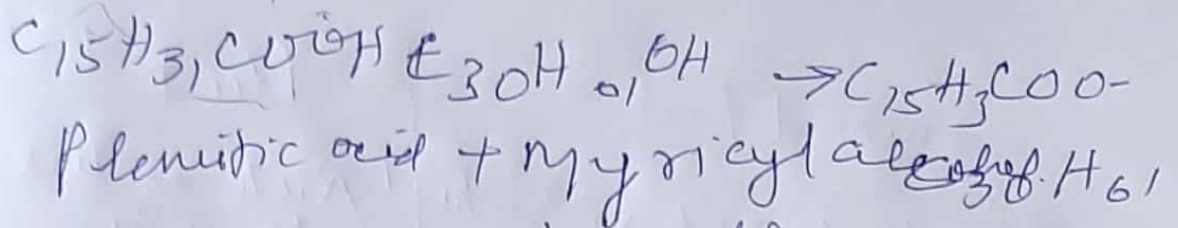
6. Found in olive oil, castor oil, soyabean oil, corn oil etc.

Saponification: Fat with alkali it form soap.

Hydrogenation. In the presence of nickel, unsaturated fatty acid by insertion hydrogen change into saturated fatty acid.

oils: Liquid fat

Waxes \rightarrow Fatty acid + Monohydric alcohol (Cetyl alcohol)
Fatty acid of Wax range from 16C to 36 C-atom & Alcohol C 14 to 22 C 36



Compound Lipids

Simple lipid + non-lipid
= compound lipid or conjugated lipid.

Simple lipid + phosphorus =
phospholipid, eg. Lecithin,
Cephalin, Sphingomyelin, Plasmalogen.
Glycolipid → Simple lipid + Carbo-
hydrate.
Lipoprotein → lipid + Protein

① Phospholipid

① Cephalin: Lecithin

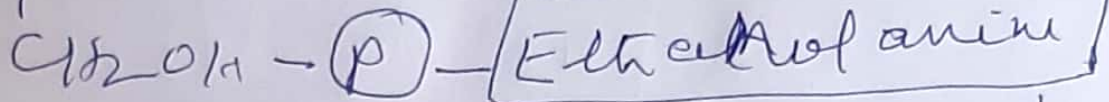
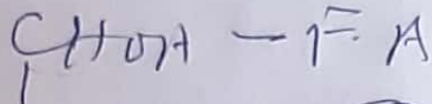
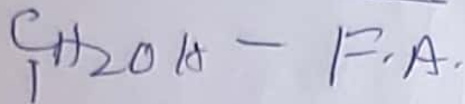
CH₂OH - Fatty acid

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CH₂OH - Fatty acid

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CH₂OH - Phosphoric acid + Choline

It is found in brain, nerve
tissue, sperm and egg yolk.
In plants - seeds & sprout.

② Cephalin



→ It is more acidic than lecithin

⇒ Fatty acids of cephalin are stearic acid, linoleic acid, arachidonic acids.

③ Plasmalogen

Found in brain, muscles, seeds of higher plants.

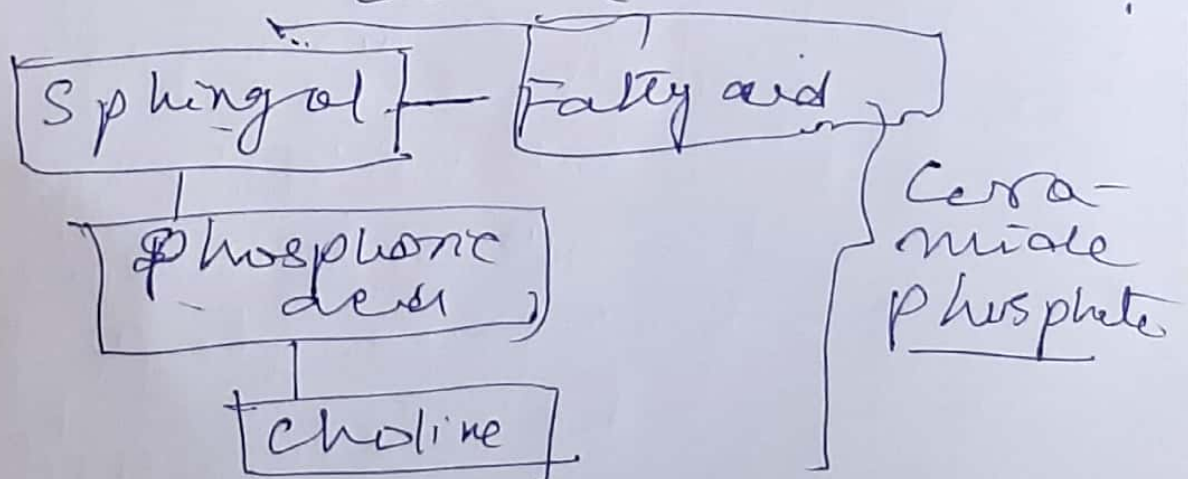


Fig - sphingomyelin