Fats and oils

① **Fats:** more stable

- oily substance
- In animal body, found under skin (or) organ. mainly composed of saturated fatty acid.

1) Solid at Room temp.
2) It's types → saturated, Trans
   - Fat composed of fatty acid which are saturated.
3) Mostly derived from Animal.
4) ↑↑ cholestrol levels.
5) Mainly comes from animal food but also through vegetable oil by process called Hydrogenation.
   eg: Butter - contain → 9 cal/gm.

oils:

- Fats that are liq. at room temp. are called oils.

1) Liq. at room temp.
2) It's types → Monosaturated, polysaturated.
   - — i.e. unsaturated.
3) Mostly derived from plants.
4) Improves cholesterol level.

5) Mainly comes from plant (or) fish.
   eg. veg. oil / fish oil.
   contain - 9 cal/gm.

Lipids:

- Non-polar molecule (oil / greasy)
- organic compound

- That contain C, H, O atoms which forms the frame work for the stru. & function of Living cells.

soluble only in Non-polar solvent.

In Human body it is synthesized by Liver & also found in oil, Butter, Milk.

Essential Fatty Acid:

- only 2 fatty acid are known to be essential for human alpha-Linolenic acid (an omega 3 fatty acid) & Linoleic acid (an omega 6 fatty acid).

• Saturated Fat: [DEPTH OF BIOLOGY]

- contain single bond.
- excessive consumption lead to heart dz.
- ↑↑ L.D.L. (Low density Lipoproteins) which is called as Bad cholestrol.
- would not-spoil quickly.
- High M.P.
- solid state in Room temp.

• food sources: Milk, Butter, cheese, coconut oil, fried food.

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• Unsaturated Fat:

- contains atleast one double bond.
- Good for consumption but excessive use may ↑↑ cholestrol.
- ↑↑ H.D.L (High Density Lipoproteins).
- known as Good cholestrol & also reduce LDL.
- Spoil quickly.
- Liq. State in Room temperature.

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- Food sources: Soyabean oil, Red meat.

USES OF FAT:

- Fat is major storage form of energy in the body.
- Body use fat as a fuel source.
- Moderate amount of fat is also req. for Good health.

- Support cell growth
- also protects organs and produce important Hormones.
- Help to absorb some Nutrients.

★ Uses of oils:

- Helps to build healthy cell memb. & assist the Nervous system in sending Message to the Brain.
- oils helps intestine to absorb vit.- A, D, E, K.

- Fatty Acid:
- Simplest Lipid are fatty acid.
- Building block of the fat in body.
- Is a carboxylic acid with a long alphatic chain.
- which is either saturated cor) Non-saturated.

[DEPTH OF BIOLOGY]

Triglycerides:

- Major form of fatty acid, storage in plants & Animal.
- Can be classified in fats and oils.
- Biological Importance of fatty acid:

1) Composition of Hormone & Lipids
2) Signal transduction pathways.
3) cellular fuel sources.
4) The Modification of protein.

☆ REMANING POINTS

FATS

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- Increase the risk of cardiovascular disease
- Keep your body warm

OILS

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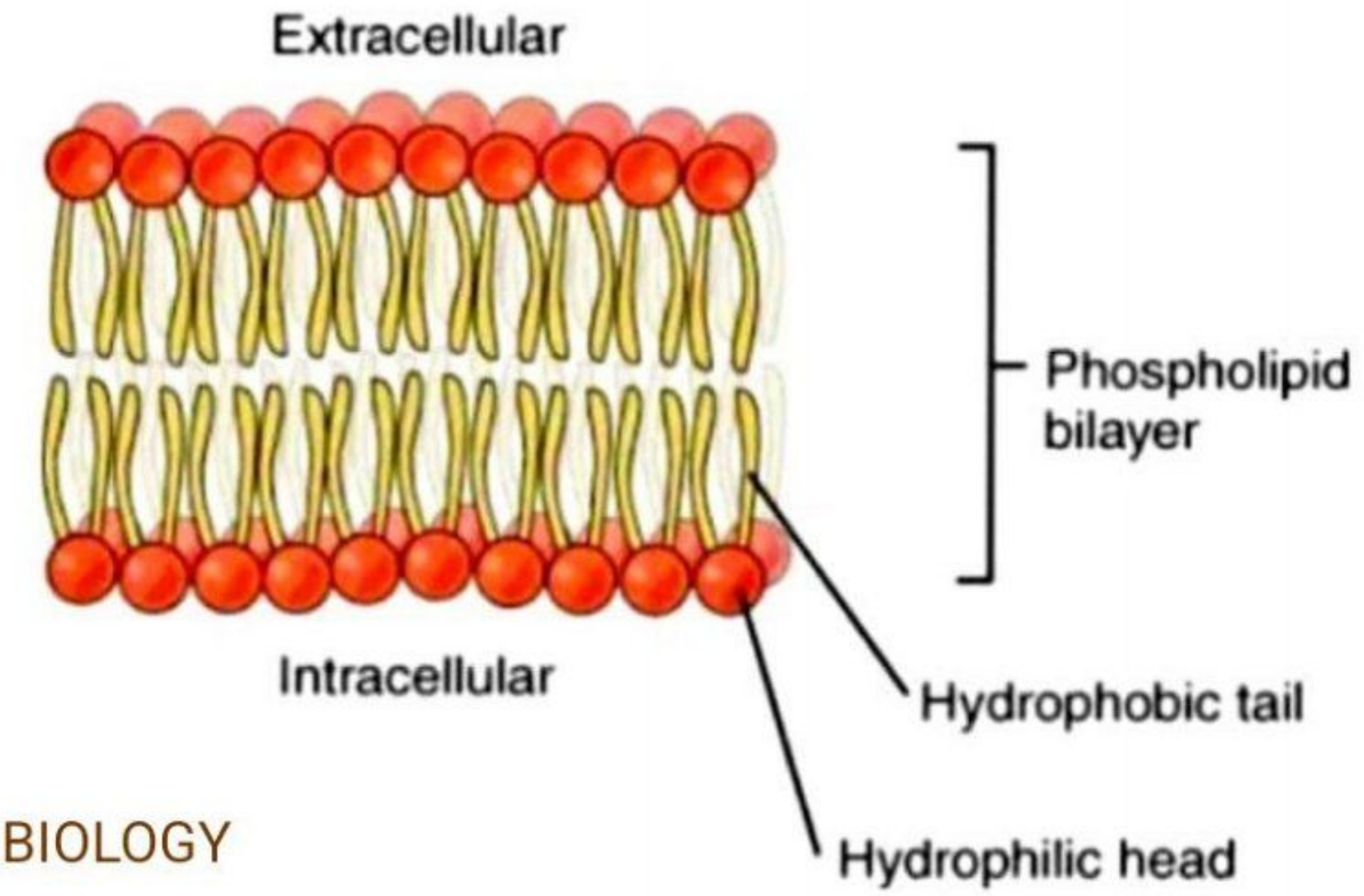
- Less stable
- For example – oleic acid

LIPIDS



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TRIACYGLYCEROLS

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- Also called Triglycerides
- Are tri – fatty Acid of glycerol

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