

1a. Shock absorption

1. Fatty acid **fatty acid** is a carboxylic **acid** with a long aliphatic chain, which is either saturated or unsaturated. Most naturally occurring **fatty acids** have an unbranched chain of an even number of carbon atoms, from 4 to 28.
2. Gonna
3. **Chylomicrons transport** lipids absorbed from the intestine to adipose, cardiac, and skeletal muscle tissue, where their triglyceride components **are** hydrolyzed by the activity of the lipoprotein lipase, allowing the released free fatty acids to be absorbed by the tissues.
4. **Endoplasmic reticulum (ER)**, in biology, a continuous membrane system that forms a series of flattened sacs within the cytoplasm of eukaryotic **cells** and serves multiple **functions**, being important particularly in the synthesis, folding, modification, and transport of proteins . Nucleus **controls the heredity characteristics** of an organism. It main cellular metabolism through controlling synthesis of particular enzymes. It is responsible for protein synthesis, cell division, growth and differentiation. Stores heredity material in the form of deoxy-ribonucleic acid (DNA) strand Mitochondria organelles that act like a digestive system which takes in nutrients, breaks them down, and creates energy rich molecules for the cell. The biochemical processes of the cell are known as cellular respiration.
5. The essential feature of a glycolipid is the presence of a **monosaccharide** or **oligosaccharide** bound to a lipid **moiety**. The most common lipids in cellular membranes are **glycerolipids** and **sphingolipids**, which have **glycerol** or a **sphingosine** backbones, respectively. **Fatty acids** are connected to this backbone, so that the lipid as a whole has a polar head and a non-polar tail. The lipid bilayer of the **cell membrane** consists of two layers of lipids, with the inner and outer surfaces of the membrane made up of the polar head groups, and the inner part of the membrane made up of the non-polar fatty acid tails.

The saccharides that are attached to the polar head groups on the outside of the cell are the **ligand** components of glycolipids, and are likewise polar, allowing them to be soluble in the aqueous environment surrounding the cell.[3] The lipid and the saccharide form a **glycoconjugate** through a **glycosidic bond**, which is a **covalent bond**. The anomeric carbon of the sugar binds to a free **hydroxyl group** on the lipid backbone. The structure of these saccharides varies depending on the structure of the molecules to which they bind.