

# [Biochemistry assignment](https://assignbuster.com/biochemistry-assignment-essay-samples-2/)

Lipids are molecules that are not soluble in water but can be dissolved in non-polar substances such as alcohol or chloroform (Amanda, n. D. ). Lipid molecules are stored in adipose, or fat tissue, and can be broken down in our bodies to form an energy called TAP. To do so, the lipid molecule is dissected into its base pieces, glycerol and fatty acids. Each of the fatty acids is then broken down into two-carbon pieces and acetylene Coca is formed from each carbon piece.

Each acetylene Coca molecule enters into a series of chemical reactions called the citric acid cycle and ultimately produces 12 TAP Hudson-Miller, 2013). A comparison between saturated and unsaturated fatty acids: Saturated Unsaturated \*Solid at room temperature \*Animal sources \*Whole fat dairy, red meat, eggs \*Higher melting point \*No double bonds in the molecule (Amanda, n. D. (smith, Paul, & seal, 2013) \*Liquid at room temperature \*Plant / fish sources \*Vegetable oils, avocado, nuts, fatty fish \*Lower melting point \*At least one double bond in the molecule \*Energy storage \_ Lipids \*Allows tort absorption to tat-soluble vi (A, D, E, and K) in the small bowel \*Acts as messengers to bring proteins together taming \*Steroids – growth, immune function, sexual unction and reproduction \*Cholesterol – important component of cell membranes \*Insulates and protects organs (Dutchmen, 2010) (Davis, 2009) The two main consequences of eating a diet without any fat are lack of energy and poor vitamin absorption.

As previously discussed, the breakdown of fatty acids yield a large amount of TAP, or energy, that can be used by the body. In the absence of fat, the body is forced to utilize carbohydrates for energy which yield less TAP and are quickly depleted. The effect on the body is unregulated energy production, leading to hunger and fatigue (Amanda, n. D. . In the absence of dietary fat, the body would also be unable to absorb fat-soluble vitamins (A, D, E, and K) leading to vitamin deficiencies.

These vitamin deficiencies could lead to a whole host of issues within the body including problems with bones, eyes, nerves, skin, immune function, and blood cells.