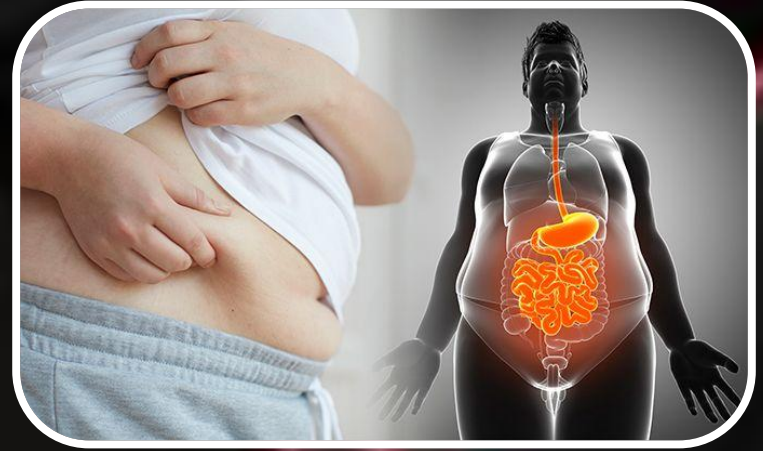


# Fats Project

Name :  
Period #

# What is fat?

Fat is a natural oily or greasy substance occurring in animal bodies, especially when deposited as a layer under the skin or around certain organs.



# Different fats found in food.

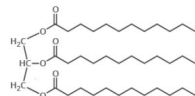
1. Trans fats
2. Saturated fats
3. Monounsaturated fats
4. Polyunsaturated fats
5. Fatty acids



## A GUIDE TO THE DIFFERENT TYPES OF FAT

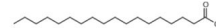
Fat is an essential part of our diets, and has a number of important roles in the body. However, there are different types, and there are health concerns surrounding eating too much of some types of fat. Here, we look at what distinguishes different types of fat, and their effects on the body.

### TRIGLYCERIDES & FATTY ACIDS



Triglycerides account for around 95% of the fat in our diet, and are formed from the combination of glycerol and three fatty acid molecules. The three fatty acids are often different, and the chemical structures of these fatty acids defines the type of fat. Cholesterol is made in the liver, and transported around the body by low density lipoproteins (LDL) and high density lipoproteins (HDL). Different fats affect LDL and HDL differently.

### SATURATED FATS



Contain no carbon-carbon double bonds. Saturated fats are solids at room temperature. They increase levels of LDL in the bloodstream. They have previously been associated with heart disease, though more recent studies and reviews have called this association into question.

### MONOUNSATURATED FATS



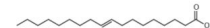
Contain one carbon-carbon double bond. They are liquids at room temperature, but solidify when chilled. They reduce levels of LDL in the bloodstream, thereby decreasing the total cholesterol to HDL ratio (HDL helps take cholesterol back to the liver where it can be disposed of).

### POLYUNSATURATED FATS



Contain two or more carbon-carbon double bonds. They are liquids at room temperature, but they start to solidify when chilled. They are split into omega-3 and omega-6 fatty acids. Polyunsaturated fats help reduce LDL levels, decreasing the total cholesterol to HDL ratio.

### TRANS FATS



Contain carbon-carbon double bonds in a trans rather than cis configuration. Formed artificially, via a process called hydrogenation; also found naturally in small amounts in meat and dairy products. They raise LDL, and are associated with heart disease. Many countries are phasing them out.



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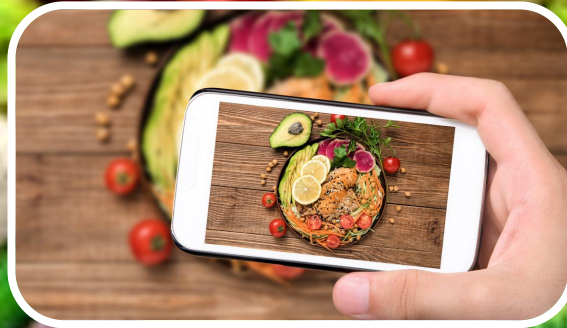
# Where are most fats found?

Fats not only exist in the body but also in all animals that we as human consume. Also we can find them in our food like chips nuts ice cream etc...



# Three reasons why our body needs fat.

**Dietary fats are essential to give your body energy and to support cell growth. They also help protect your organs and help keep your body warm. Fats help your body absorb some nutrients and produce important hormones, too. Your body definitely needs fat.**



# What is an essential fatty acid?

Essential fatty acids are fatty acids that humans and other animals must ingest because the body requires them for good health but cannot synthesize them.



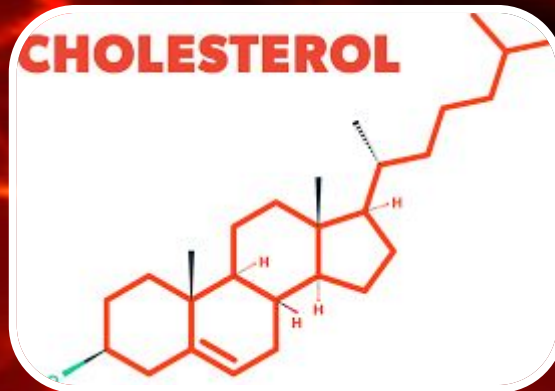
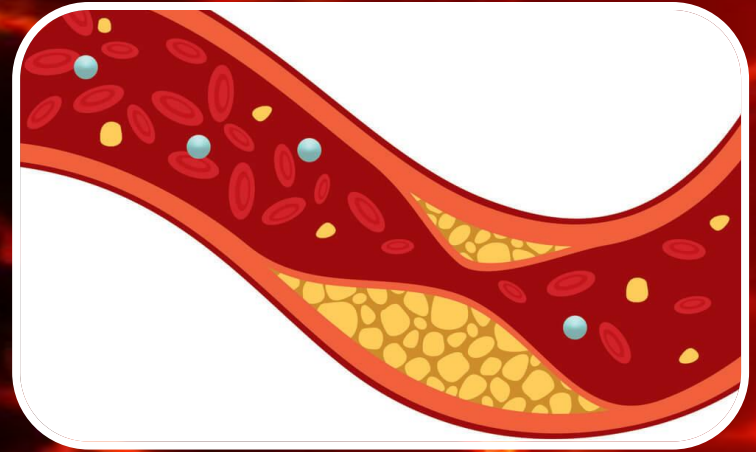
# 2 essential fatty acids our body needs.

Only two fatty acids are known to be essential for humans: alpha-linolenic acid (an omega-3 fatty acid) and linoleic acid (omega-6 fatty acid).



# What is cholesterol?

Cholesterol is a waxy, fat-like substance that's found in all the cells in your body. Your body needs some cholesterol to make hormones, vitamin D, and substances that help you digest foods.



# Saturated fatty acid

Saturated fatty acids are straight-chain organic acids with an even number of carbon atoms . for example chickens wings fries burgers.



# What is a polyunsaturated fat?

Polyunsaturated fats are fats in which the constituent hydrocarbon chain possesses two or more carbon-carbon double bonds. Found mostly in nuts, seeds, fish, seed oils, and oysters.



ATED FATS  
A"

# What is a monounsaturated fat?

In biochemistry and nutrition, monounsaturated fatty acids are fatty acids that have one double bond in the fatty acid chain with all of the remainder carbon atoms being single-bonded. By contrast, polyunsaturated fatty acids have more than one double bond.

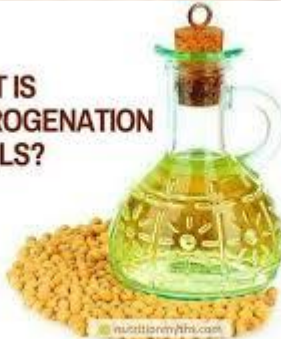


# What is hydrogenation?

Hydrogenation is a process in which a liquid unsaturated fat is turned into a solid fat by adding hydrogen. ... Partially hydrogenated oils can affect heart health because they increase “bad” (low-density lipoprotein, or LDL) cholesterol and lower “good” (high-density lipoprotein, or HDL) cholesterol.



WHAT IS  
HYDROGENATION  
OF OILS?



[nutritionalinfo.com](http://nutritionalinfo.com)

# What is BMI and what does it determine?

Body Mass Index (BMI) is a person's weight in kilograms divided by the square of height in meters. A high BMI can be an indicator of high body fatness. BMI can be used to screen for weight categories that may lead to health problems but it is not diagnostic of the body fatness or health of an individual.



# Strategies to reduce fat in your diet?

1. Cut Back on Sugars and Starches

2. Eat Protein, Fat and Vegetables

3. Lift Weights 3 Times Per Week

