

FATS AND OILS

Dr Sunil Thanvi

MD; DM;FACC;FESC;FSCAI;FCSI

Professor & Head

Senior Interventional Cardiologist

Gujarat, India

www.dr.sunilthanvi.com

drsunitthanvi@gmail.com

Fats are gaining negative publicity these days because of its role in life threatening disorders like heart attacks, strokes, obesity, hypertension, type 2 diabetes etc.

There is a lot of confusion on what is good and what is bad. Some of the common queries concerning fats and oils are :

WHAT ARE FATS AND OILS

The oil that we use in cooking to grease our pans come in two forms:-

- **Oil**- It's in the liquid form at room temperature. It is always obtained from a vegetation source.

Examples include peanut, soya beans, sunflower, sesame, coconut, olive oil, mustard etc.

- **Fats**- They are in the solid form at room temperature. These are found naturally only from an animal source. The process of hydrogenation changes the consistency of vegetable oils from liquid to solid.

Examples of edible animal fats are lard, fish oil, butter, pure ghee. They are obtained from fats in the milk and meat, as well as from under the skin of an animal. Hydrogenated fat or vegetable ghee is obtained by hydrogenating vegetable oils e.g. Dalda ghee or Nutrilite butter.

ARE FATS AND OILS IMPORTANT OR CAN THEY BE AVOIDED COMPLETELY ?

Fats and Oils are not always the bad. They should not be avoided in the diet completely because they have a few important roles to play.

Some fatty acids are essential nutrients, meaning that they can't be produced in the body from other compounds and need to be consumed in small amounts but it is very important to be well informed about the right amount that is a healthy intake and at what point the fat intake becomes unhealthy and a cause of disease.

The pivotal role that fats and oils play in the body is:

- Vitamins A,D,E and K are fat-soluble, meaning they can only be digested, absorbed and utilized in the body in the presence of fats. Fats are also sources of essential fatty acids, an important dietary requirement.

- Fats play a vital role in maintaining healthy skin and hair.

- Fats form a layer around the vital organs which insulate them against physical shock or blunt trauma.
- The presence of fats in the skin layer helps regulate the body's temperature.
- Fats also serve as energy stores for the body, containing about 37 kilojoules per gram (9 kcal/g). They are broken down and converted to glucose by the liver to be used by the body.
- Fats and oils provide the essential fatty acids that are not produced by the body. Its only source is from dietary ingestion. (MUFA-mono unsaturated fatty acids and PUFA-Poly unsaturated fatty acids).

WHAT ARE THE EFFECTS OF EXCESS FAT CONSUMPTION

- The fat ingested in the form of food is used up as per the body's requirement and the the remaining is stored in the body as adipose tissue.

Excess fat intake does not get utilized in the body and keeps piling up and the adipose tissue gets ticker.

This generally collects in sites like the abdomen, hips, thigh, buttocks etc. The stored up fat puts pressure on the various vital organs and leads to various disorders.

- The excess fat ingested circulates in the blood (high cholesterol levels) and gets deposited in the arteries and leads to heart diseases and strokes.
- It leads to overweight and obesity.
- People also experience loss of stamina and breathlessness.

HOW MUCH IS THE RIGHT AMOUNT?

Total fat intake for an individual of normal BMI and a moderate physical activity should be **5-7 tsp** (oil/ghee).

People who fall in the overweight or obese category should not ingest more than **4 tsp** of oil/fat daily.

This is the visible fat intake i.e. oils used in cooking.

The invisible fat that comes from nuts and oilseeds, milk fat, fat from non-veg sources needs to be kept under control.

A trained nutritionist will be helpful in tailor making your diet according to your requirement and daily intake.

TYPE OF FAT GOOD FOR THE BODY

- As explained earlier, oils are in the liquid form. They are unsaturated by nature and are more easily digested by the body.
- Fats are in the solid form. They are saturated by nature and cause the atherogenic plaques in the body. Hence should be avoided.

-Trans fatty acid- This is the type of fat formed when the fats are re-used and reheated multiple number of times. Trans fatty acids are very harmful for the heart.

Hence highly processed foods and hydrogenated oils and butter should be avoided because they contain trans fatty acids.

WHAT OILS SHOULD BE USED?

Every oil has its own characteristic property.

- **PUFA oils** are very important to the human body as they cannot be produced in the body. But excess of PUFA oils can cause complications e.g. Soya bean oil, corn oil, safflower oil, sesame seed, nut oil (walnut, almond etc), flaxseed, fish oil, cod liver oil.

- **MUFA oils** are known to improve blood cholesterol levels, reduce risk of heart attacks and possibly improve glycaemic control in type 2 diabetes e.g. olive, canola, peanut, mustard, rice bran.

The right ratio of Saturated Fatty Acids (SFA), Mono Unsaturated Fatty Acid (MUFA) and Poly Unsaturated Fatty Acid (PUFA) should ideally be 1:1.5:1

So the best tip is to use a combination of 2-3 oils or different oil every fortnight.

If single oils are used then make sure you are not buying bulk but 1 litre bags of different oils. Like groundnut, Sunflower, Rice bran. Peanut etc. and then use them in rotation.

Saturated Fats- Pure ghee is the best to use, although should be used in less quantity (<1tsp per day).

Hydrogenated butter or margarine (1 tsp/day). Although it contains cholesterol and is more expensive. It is healthier than vegetable butter.