

“What is Dietary Fat?”

A Nation Obsessed By Fat

It seems we've become a nation obsessed by fat. It dominates the headlines from the junk food served in schools to the growing problem of obesity. Fat is an issue that arises every day of our lives – counting calories has been replaced by counting fat content. But with so many types of fat, are you counting the right fat? Can you distinguish the bad fat from the good fat?

What is dietary fat?

There are several nutrient groups - carbohydrates, protein, vitamins and minerals, fibre and fat. Each is vital, in appropriate quantities, to a healthy, balanced diet.

Dietary fats are otherwise known as fatty acids or lipids. There are two main types of dietary fats – unsaturated and saturated. This refers to how they are chemically structured.

“Why do you need fat in your life?”

Fat is an essential part of a healthy, well balanced diet. It provides essential fatty acids, provides and allows the body to absorb Vitamins A, D, E and K, improves the taste and texture of food and is an important source of food energy. Dietary fat is also needed by the body to support natural growth, maintain healthy skin and vision, boost the immune function and enhance learning. It is important that you choose the right fat to eat, however. See [Types of Fat](#)

Recommended fat intakes are based on energy needs and physical activity levels. Present guidelines suggest that no more than 35% of daily energy intake (EI) should come from fat and no more than 11% from saturated fat.

The energy requirements for an average woman and man are 2,000 and 2,500 kcals per day respectively.

RECOMMENDED TOTAL FAT INTAKE i.e. 35% x 2,000 (kcals) = 700 (kcals) of fat per day		
Energy intake in calories	35% x EI	Total fat in grams
Women 2,000	700	Approx 70
Men 2,500	875	Approx 95

“Types of fat”

There are two main types of dietary fat – saturated and unsaturated.

Saturated fats (SAFA)

This type of fat is typically found in large amounts in foods from animals, e.g. meat, butter, cheese and cream. Many baked goods such as cakes, biscuits and pastries are also high in saturated fat. Excessive intake of saturated fat can increase blood cholesterol levels, one of the major risk factors for heart disease.

Once again, recommended fat intakes are based on energy needs and physical activity levels. Present guidelines suggest that no more than 11% of daily energy intake (EI) should come from saturated fat.

RECOMMENDED SATURATED FAT INTAKE	
Energy intake in calories	11% x EI
Women 2,000	220 kcals
Men 2,500	275 kcals

Figures suggest that, as a nation, we may be eating too much saturated fat and need to cut down.

Unsaturated fats

There are two main types of unsaturated fats – monounsaturated and polyunsaturated. Most monounsaturated and polyunsaturated fats have good qualities, with one exception - trans-fatty acids are technically speaking a monounsaturated fat but offer no health benefits and can be potentially harmful.

Monounsaturated fats (MUFAs)

Oleic acid

Oleic acid is the main monounsaturated fat in our diets. This is sometimes called omega-9. It is found in significant amounts in most types of nuts, avocado pears, rapeseed oil and olive oil. It does not raise blood cholesterol and evidence shows that it reduces blood cholesterol levels if it replaces saturated fat in the diet.

***Trans-fatty acids* (TFAs)**

TFAs raise LDL 'bad' cholesterol and reduce HDL 'good' cholesterol, increasing the risk of Coronary Heart Disease (CHD), so they are not good for health. There are no health benefits from eating trans-fatty acids and they can potentially be harmful to health. No more than 2% of the calories we eat each day should come from TFAs, but most people's diets are well within this limit. A relatively small proportion of people may have a very high intake of TFAs if they eat a lot of meat products, full-fat dairy products, cakes or biscuits, however. These people do need to take steps to cut their intake or their health could be damaged.

Trans fatty acids (TFAs) in our diet come mainly from two sources. One is when liquid oils are hardened by a process called partial hydrogenation; the other source of trans fatty acids is meat products and dairy foods. Many food manufacturers have re-formulated foods to remove partially hydrogenated oils and make them TFA-free. For

instance, all brands of spreads on British shelves are virtually free of TFAs now and many big supermarket chains have also made moves in this direction.

The most common dietary sources in the UK are biscuits, cakes, cheese, meat pies and pastries, so it is wise to watch your intake of these foods unless you know they contain no trans-fatty acids.

Polyunsaturated fats

These are the essential fatty acids that cannot be made in our body, so we have to obtain them from food. Polyunsaturated fats can be divided into two main types - Omega-3 and Omega-6.

Omega-6 is mainly found in some meats, sunflower and corn oils and products made with these oils. Omega-6 helps reduce blood cholesterol levels if it replaces saturated fat in the diet hence helping improve heart health.

Omega-3 can be found in some vegetable oils such as flax and rapeseed oil. The other source of Omega-3 is fish oils, which are generally accepted as the most beneficial form. Like Omega-6, Omega-3 is shown to help keep the heart and circulation healthy.

So, broadly speaking....

Saturated	<i>Bad</i>
Polyunsaturated	<i>Good</i>
Monounsaturated (except TFAs)	<i>Good</i>
TFAs	<i>Bad</i>

Dietary sources of 'good' fats

Monounsaturated - nuts, olive oil, rapeseed oil and spreads made from these.

Polyunsaturated - oil-rich fish, such as salmon, tuna, sardines and mackerel; vegetable oils, such as sunflower, safflower, corn and soya oils and spreads made from these.

“The clinical evidence”

The evidence supporting the importance of fat as part of a healthy, balanced diet is undisputed. All the major health organisations around the world agree that some dietary fat is vital to health. It is also generally agreed now that the *type* of fat we eat can play a major part in health maintenance. Although it is important to make sure that we do not eat huge amounts of fat, especially for those who are overweight, watching the *type* of fat we eat is equally or perhaps more important.

Coronary Heart Disease

There is convincing evidence that swapping saturated fats for monounsaturated or polyunsaturated fats will reduce bad cholesterol. Coronary Heart Disease is the leading cause of mortality worldwide and lowering blood cholesterol levels significantly reduces its risk.

Diabetes

People with diabetes should consume a diet, which is low in saturated fat because of their increased risk of developing cardiovascular disease. Diets, which are high in monounsaturates have been shown to offer improved glycaemic control. It is important that diabetics maintain a healthy weight.

Cancer

Approximately, 30% of all human cancers may be influenced by diet, lifestyle and physical activity. Unsaturated fats (omega-3 and monounsaturates) may be associated with a reduced risk of developing certain cancers, including cancer of the colon, breast and prostate. However, more evidence is needed.

Inflammatory conditions

Inflammatory conditions, such as asthma, Crohn's disease and arthritis may be improved by the anti-inflammatory actions of dietary omega-3.

Brain function and behaviour

Docosahexaenoic acid (DHA) and Eicosapentaenoic acid (EPA) are types of omega-3 and both are important for the brain development of a baby in the womb. Brain cells are especially rich in DHA. The presence of DHA in the diet might influence how well the mind works and behaviour (such as depression), however, more evidence is needed.