

Food for thought – fats: friend or foe?

If you pay attention to the popular press and to some of the government's healthy eating messages you may be thinking that fats are universally bad for us. It is true that much of the general population consumes a higher level of fat than is considered to be healthy and that a significant proportion of that population is now overweight and at risk from long term health problems such as type II diabetes and cardiovascular disease (known as metabolic diseases).

Are you a typical example of the general population? The answer is most certainly 'no' if you exercise regularly. Then it is also far less likely that you are overweight and for these reasons you are much less likely to develop metabolic diseases.

So, does that mean that you can eat whatever you like? Well, the answer to that question depends upon your situation.

If you're trying not to gain weight then you should avoid eating too much fat because, gram for gram, it is more than twice as calorie dense as carbohydrate or protein. If you're trying to lose weight, then reducing the amount of fat you eat is a good idea, provided that you don't just substitute lots of sugar instead! If you've seen or heard recent media commentary that 'sugar' is the new 'fat' you may be aware that low fat processed foods are often high in sugar because the fat which provided much of the flavour has been replaced by sugar in order to make the food more palatable.

Knowing that fat is very calorie (or energy) dense is useful to you, however, if you're burning huge amounts of calories and struggling to replace those calories – think about the Tour de France for example: those cyclists burn many thousands of calories each day and they need to fuel up each evening in order to prepare for the following day's ride. They just can't eat enough carbs to replace the energy they've used during the day and so they will include significant amounts of fatty foods in their evening meals.

Aside from providing a concentrated source of calories, and flavour to many foods, does fat have any real value to us? The answer is a resounding 'yes'. Certain essential vitamins are termed 'fat soluble' – vitamins A, D, E and K – which means that we need to have fats in our diet in order to absorb these vitamins.

Not eating fats at all and therefore not being able to absorb those fat-soluble vitamins will lead to a whole host of problems, including night blindness, compromised immune system, higher risk of diabetes, low bone density and impaired blood clotting. Similarly, medical conditions in which dietary fats are not absorbed from the gut will also restrict the absorption of the fat soluble vitamins.

But it's OK to eat 'good fats' isn't it? This area is something of a minefield. We need to understand what constitutes a good fat and not get completely confused by the headline grabbers: 'margarine? It's so vile that my dog won't eat it; in fact nothing on earth will eat it apart from us....'



To try and simplify the picture with respect to fats, we can divide them into five categories:

- Saturated fats, which are more likely to be solid at room temperature, are found in high concentrations in animal fats (e.g. butter, fat surrounding meat) and tropical oils (e.g. coconut oil, palm kernel oil).
- Unsaturated fats (mono- and poly-unsaturated), which are found in high concentrations in many vegetable oils (e.g. rapeseed, sunflower, safflower and olive oils).

- Essential fatty acids, Omega 3 and Omega 6, are also part of the family of polyunsaturated fats; Omega 3's are found in oily fish and some vegetable oils (e.g. flax and hemp oils), Omega 6's are found widely in vegetable oils, particularly those used in margarines, and in cereals and grains.



- Trans fats are the ones to be aware of; these are the chemically altered fats that used to be found widely in margarines. Margarine was invented by a French chemist, way back in the 19th century. It was originally a blend of vegetable oils and beef fat which provided an alternative to (then) expensive butter. In the mid 20th century margarine manufacturers switched almost completely to vegetable oils.
- Plant sterols and stanols are recent additions to the supermarket shelves; they are added to some margarines and spreads.



So, of those five categories, what we need to know is that the ones to avoid are the trans fats. You will still find them in a few margarines, often those recommended for baking, and the labels will specify the proportion of trans fats. Trans fats are also found in many processed foods, particularly baked goods, and this is where they are harder to spot.

Mono- and poly-unsaturated fats are known as 'good fats' and they are widely regarded to be the healthy option in that they are associated with favourable blood cholesterol levels.

Essential fatty acids are, not surprisingly, essential in our diet because our bodies cannot make them. When Omega 3 and Omega 6 were discovered they were initially termed 'vitamin F' but have subsequently been reclassified as fats. These fatty acids support a range of functions in our bodies, notably the control of inflammation and aspects of normal function of the nervous system. Our western diets are rich in Omega 6's but generally very low in Omega 3's, and not only do the

6's not provide a substitute for Omega 3's, high levels of 6's counteract the benefits of the small amounts of 3's that we do eat.



The jury may still be out on saturated fats. Although there is much evidence of a link between saturated fat in the diet and cardiovascular disease, there is also some more recent conflicting evidence. On balance, however, medical and government agencies still advise that saturated fat is a risk factor for cardiovascular disease and hence that dietary levels should be reduced throughout the general population.

Plant stanols and sterols, when consumed in sufficient quantities, have been shown to reduce the levels of 'bad cholesterol' in the blood stream; thereby reducing the risk of cardiovascular disease. You'll find these compounds in the new 'heart healthy' and rather expensive spreads on the supermarket shelf!

So, is it OK to eat good fats or not?

Firstly, we do need to include fat in our diet, in order to absorb essential vitamins and to provide the Omega essential fatty acids. Secondly, the type of fat we eat is important: we need to avoid trans fats (old fashioned margarines and highly processed baked goods); we should try to eat more unsaturated fats (vegetable oils and spreads) and less saturated fats (animal fats, coconut and palm oils); and ensure that we get enough Omega 3's by eating at least 2 portions of oily fish per week.

Finally, how much fat to eat is another aspect to think about. Overall, no more than 35% of our daily energy (calorie intake) should be provided by fats. For those of us who have a relatively high carb diet, it is likely that much less than 35% of our energy is provided by fats. For those who consume larger proportions of highly processed foods, where the fat content may be high, the picture is likely to be less favourable.

Fats, in moderation, are definitely friends rather than foes – an essential component of our diet and a useful source of energy in times of high demand. Needless to say, if we want to lose weight then fatty foods are a prime target for reduction and/or replacement. Just don't be tempted by the apparent short cut offered by diet pills that restrict the body's absorption of fats – you really don't want to experience the results of undigested fats passing right through your gut, believe me!

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