

Welcome



What has happened to the last 100 years? Looking back at articles published near the start of the last century, there was already a huge amount of evidence to show that plant foods were preferable to meat. Since then, the health message has been constantly obscured with a welter of red herrings. Fish eating and fish oils to protect against heart disease (see this page) are only the latest example of how health messages get hyped, exaggerated and inflated until they're seen as a kind of panacea.

It almost appears to be official policy to tinker around the edges of ill health, giving advice that, at best, merely alleviates the worst effects of very bad diets. As our research shows on page nine, the evidence that plant-based diets are the answer to our growing health problems increases almost daily. It is now apparent that a far more effective way of improving people's health and reducing their risk of heart disease would be to tackle bad eating habits head on rather than tinker with them at the edges.

The bonus is, of course, that by tackling heart disease through diet, the epidemics of other degenerative diseases which are flourishing would also be effectively tackled. But unfortunately that isn't the way it seems to work. Rather than encouraging people to change their diet as a whole, they are encouraged to see diseases individually - fish oils for healthy hearts, tomatoes for prostates, fibre for bowels, yoghurt for digestion, and so on.

The extraordinarily unhealthy, celebrity-backed Atkins diet is another prime example of image over substance (see page 12). The media have fallen on it like a pack of ravening wolves despite the fact that it has already caused the death of one teenager and defies every tenet of sensible health advice. It would be funny if it wasn't so serious - bad eating habits create excess weight and obesity and the solution, supposedly, is to make your diet even worse!

You would have expected the government's Chief Medical Officer to have made some kind of intervention, even if only to say 'don't touch the Atkins diet with a barge pole' but not a word. As a consequence, it has been treated as though it is simply a lifestyle choice. But the way governments tackle ill health isn't necessarily as straightforward as it could, or perhaps should be, as the article on page 15 makes clear.

One result is that our National Health Service is, in fact, a sickness service with almost all the available money being spent on pills, potions and procedures and about two per cent on prevention. The World Health Organisation is clear that such is the scale of disease facing western countries that it can only be tackled through large scale dietary intervention - and the diets they are referring to are plant based.

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Government Fatally Flaw

Laura Scott Explains Why Veggies are Right to Let

Eat more fish, eat some fish, eat this fish, eat that fish - for a food supposedly great for brains it sure makes your head hurt! According to government policy and almost every health magazine, vegetarians are doing themselves a disservice by not eating fish as its oils are an essential aid in avoiding heart attacks and death from coronary heart disease.

A review of the scientific literature carried out by the VVF, however, blows a hole in this policy and begs the question why it has been promoted with such energy. Like the red meat industry, fishing attracts huge government subsidies. It raises the question as to whether the promotion of fish has more to do with protecting an industry than protecting human health. The review found that:

- plant oil is far more effective in reducing the chance of death in high-risk patients than fish oil;
- plant oil reduces the risk of secondary heart attack by double compared to fish oil;
- fish oil does not reduce the chances of death from heart disease in those at low risk, plant oil does;
- plant oils reduce the number of painful, non-fatal heart attacks;
- there are long-term survival benefits from consuming plant oils;
- most fish oils contain poisons from environmental pollution, such as mercury, organophosphates, PCBs and dioxin which may encourage heart disease, infertility and harm developing foetuses.

Fishy Fats

Eating fat is not the original sin; in fact, our bodies can't function properly without it. But it should be the right type, namely polyunsaturated fat found principally in plant foods. It is also found in oily fish such as herring, mackerel, sardines and salmon.

There are two main types of polyunsaturated fats - omega-6 (linoleic acid - LA) and omega-3 fats (linolenic acid - LNA). The richest dietary sources of omega-3 are not fish but seed oils such as linseed, rapeseed, soya and mustard and whole nuts - particularly walnuts. (1). Green leafy vegetables are also a source of omega-3 (2). Together, omega-3 and omega-6 are referred to as essential fatty acids, or EFAs.

Oily fish is promoted as a good source of EFAs because it contains omega-3 but so do flaxseed and rapeseed (canola). There is a difference in how the body deals with plant oils compared to fish oils but a planned vegetarian diet provides all the omega-3 necessary and renders fish eating unnecessary.

Fish Policy

ed

the One that Got Away, Stay Away

Fish and Heart Disease

Affairs of the heart are the primary reason why fish has come to be viewed as a must-have accessory for a healthy diet. Fatty acids found in fish flesh can help reduce the likelihood of clots forming in the blood, can help lower blood pressure, cholesterol and fat (triglyceride) levels in the body and may help to reduce the risk of heart disease.

Fish got the thumbs up when it was observed that some people who eat fish-rich diets, such as the Japanese and Inuit (Eskimos), had low rates of cardiovascular disease. Controlled trials showed that marine fatty acids could significantly reduce mortality in people who already have cardiovascular disease. So perhaps it's not surprising that the American Heart Association (AHA) and the World Health Organisation (WHO) both argue that fish is an important part of the diet with the AHA recommending people to eat at least two servings of fish per week - especially oily fish, as well as plant foods rich in omega-3. Importantly, the AHA adds that this advice should be weighed against concerns over the contamination of fish from pollution in the environment (3). Make no mistake, this is a hugely important proviso and seriously erodes the idea that fish is healthy.

Two important 'secondary prevention' trials (DART and GISSI) spurred the promotion of fish to reduce the risk of a second heart attack. Much less publicised was the LYON study that looked at the effects of plant-derived omega-3 on hearts. Strange, considering it showed that plant-derived omega-3 reduces the risks of secondary heart disease by almost double that of fish-based omega-3!

The DART trial looked specifically at people who had recovered from a heart attack (myocardial infarction - MI) when blood supply to the heart muscle (the myocardium) is blocked, resulting in severe chest pain or death. Males who had been advised to eat about 300g of fatty fish per week showed a reduction of almost 30 per cent in mortality over two years. Researchers believe that fish oils help to normalise heartbeat rhythms and prevent blood from becoming too sticky and 'clumping'.

The study showed that eating more fish resulted in a small decrease in the amount of meat, meat products, cheese and eggs eaten. The outcome was fewer fatal heart attacks but the total number of attacks was not significantly reduced (5). A follow-up study 10 years later found that there were no long-term survival benefits.



The GISSI study also looked at patients who had survived a heart attack but who had Mediterranean dietary habits. Patients were given omega-3 fish oil capsules and there was a 10-15 per cent reduction in overall mortality, non-fatal MI and stroke over a three-and-a-half year period (7).

The LYON study also looked at how essential fatty acids can help prevent a second heart attack, the difference being that plant-derived omega-3 was used. Amazingly, it resulted in a 70 per cent reduction in cardiac deaths as well as a reduction in 'significant coronary events' - almost twice the reduction of the fish and fish oil trials! The heart-protection effects of their largely plant-based diet were found to start quickly and four years later, most patients were still following it and their hearts were still being protected (9).

The significance of this study is hard to over-emphasise. It shows that plant-derived omega-3 is clearly superior to that derived from fish in reducing the odds of dying from a heart attack and in avoiding the painful experience of a second non-fatal attack; that plant-based diets can be successfully sustained; and that it provides long-term heart protection.

A 1997 study by Singh and colleagues looked at the effects of both fish oil and mustard oil on a group with suspected MI. Belching and nausea were two side effects of the fish oil treatment that led to some subjects leaving the trial. Very nice! Both groups showed a significant reduction in total cardiac events (10). In 2002, Singh looked at healthy Indo-Mediterranean diets rich in wholegrains, legumes, fruits and vegetables, coupled with foods high in omega-3 from

nuts, mustard oil and soyabean oil. This diet was given to a group of patients already showing risk factors for heart disease such as angina and MI. The outcome was a significant reduction in non-fatal MI and sudden cardiac death. The authors concluded that omega-3 fatty acids consumed as mustard or soyabean oils, walnuts, leafy green vegetables and wholegrains, rather than fish or fish oil supplements, might also reduce the risk of heart disease in people who already eat a fairly healthy diet (11).

Low-Risk - No Gain

Marckmann and Gronbaek in 1999 found that fish consumption does not reduce the risk of death from coronary heart disease in low-risk people. They concluded that people with healthy life-styles gain no additional protection from eating fish. The authors also ask the question whether it is fish oil that seems to give protection to high-risk individuals or whether other factors are involved (13).

Hearty Veggies

Low-risk people are those who have a low saturated fatty acid diet as saturated fat is a known risk factor for coronary heart disease. It follows that vegetarians and vegans usually come into this category. A recent review found that vegetarians have a 25 per cent reduced risk of dying from heart disease than meat eaters (14) and the latest position paper by The American Dietetic Association puts them at lower risk of several degenerative diseases, including heart disease (16).

Marine Madness

Thanks to pollution, the marine environment is anything but fresh and clean. All the world's oceans have been polluted with toxic chemicals yet fish are marketed as essential to a healthy diet. Environmental contaminants stemming from industrial processes reach all our water - streams, lakes, rivers as well as oceans.

A particularly toxic group is termed POPs - persistent organic pollutants. They are now part of many food chains and become more concentrated the higher up the chain you go. Carnivorous fish such as salmon eat smaller fish and take on their toxic load, becoming ever more toxic themselves. Humans in turn eat the salmon, tuna or mackerel. Mercury is one such POP and recent studies show that fish are widely contaminated with it.

According to a government agency, most of the organic mercury that people eat comes from methylmercury in fish. Mercury is a poison known to affect the kidneys and central nervous system (29). The heart doesn't like mercury much either.

Following a recent survey of mercury contamination in fish, the Food Standards Agency (FSA) issued the following extraordinary statement: "The FSA is advising pregnant and breastfeeding women, and women who intend to become pregnant, to limit their consumption of tuna". These women are also advised to avoid eating shark, swordfish and marlin. The reason is that mercury can harm the developing nervous system of an unborn child. Shamefully, almost all fish eaten contain trace amounts of methylmercury



and the three species listed are above 'safety' levels.

A study looking at mercury levels in Mediterranean tuna found they exceeded maximum levels in over 60 per cent of bluefin tuna (31) and other edible fish were also contaminated. The authors expressed concern over human consumption of some species (32) and researchers insist fish must continue to be monitored closely in order to assess the risks (33).

Mercury and Heart Disease

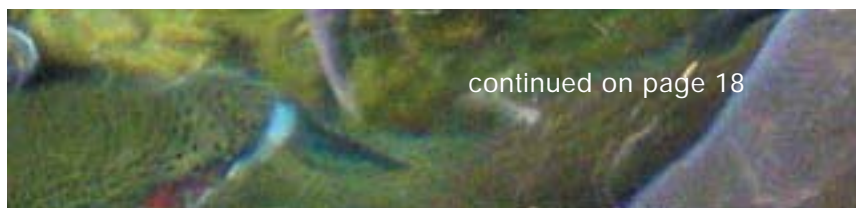
Mercury in fish could possibly limit any supposed heart protection benefits, according a 1995 study. It showed that a high intake of mercury from eating non-fatty fish was associated with an increased risk of MI and death. A daily intake of 30g or more increased the risk of MI two-fold and it went up by five per cent for each additional 10g of fish eaten per day (34).

The Food and Drink Administration (FDA) in America has already advised that high-risk groups such as pregnant women should not eat fish with high levels of mercury. The real question is - should anyone? (35).

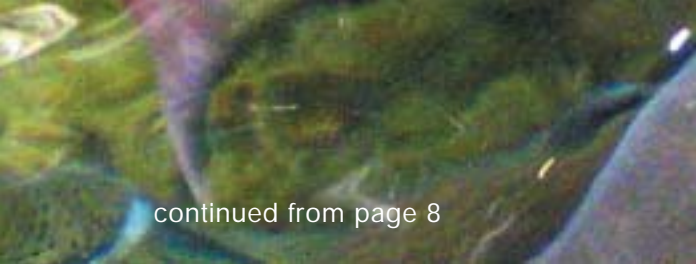
Mercury and Infertility

Mercury is also implicated as a possible cause of infertility in both men and women and a recent study examining infertile people found that those eating the most seafood had elevated levels of mercury in the blood (36).

Despite all these concerns, the FSA do from time to time change their recommendations on how much, who should and who shouldn't eat what types of fish. To make this easy for you then here's a couple of statements taken from the FSA website. FSA statement ref. 2003/0330 states that two portions of fish should be eaten weekly (30). The FSA leaflets entitled 'Fish and shellfish' and 'Mercury in fish: your questions answered' state that: at least two servings of fish should be eaten per week. If you are a woman who is or who may become pregnant don't eat predatory fish like swordfish, shark, marlin or tuna. Just so you are clear then! Best advice - give up fish entirely.



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Don't Fancy Yours

Despite the constant message that fish is a healthy and necessary part of the diet, people aren't impressed and eat just 144g per week of fish and fish products. Just 47g of this is the recommended oily fish compared to the 200g-300g they are encouraged to eat (38). As a public health measure, promoting fish has been a spectacular failure.

Farmed Failure

Due to the collapse of fish stocks, fish farming is the world's fastest growing food sector but it brings with it health and nutritional concerns. Farmed salmon, for instance, can contain three times less of the heart-healthy omega-3 fats and 15 per cent less protein. They can also contain chemical pesticide residues as well as dangerous levels of toxic chemicals such as polychlorinated biphenyls (PCBs) (39).

Researchers found that farmed salmon have 10 times the toxic potential than wild salmon, with higher levels of PCBs, organochlorine pesticides (OPs) and polybrominated diphenylethers (PBDEs). The source is thought to be their feed of fish oil and fish meal, which is itself contaminated from industrial pollution of the sea (40).

Conclusions

Fish are a source of the essential fats so necessary in the diet but they are not the only, or healthiest, source. Plants provide a far superior source of essential fatty

acids. The fact seems to have been obscured by the concerted promotion of fish - a diet almost no one seems to want. Add to this the contamination of the world's oceans and it means that when you take a mouthful of fish, you take a mouthful of poison - most likely mercury or PCBs.

The fact that the government promotes fish as the solution to heart disease and barely mentions the better alternatives is extraordinary. Ignorance is no excuse and the only other reason can only be wilful misinformation. It gives the message that there's no need to make fundamental changes to unhealthy diets, all you need do is pop a fish 'pill'. Dietician Sandra Hood summed it up when she said that promoting fish is a kind of damage limitation exercise.



The science shows that our hearts don't need fish, our brains don't need fish and our health is far better served by a plant-based diet. Plants, not fish are the way forward for health.

This article is taken from Laura Scott's scientific report, a fully-referenced version of which is available from VVF for £10. Tel 0117 970 5190 (Mon-Fri).

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have done to the WHO in private with the support of tame politicians.

We reported in the last issue of **veggiehealth** that an independent consultant had revealed that the food industry had infiltrated the WHO since the publication of the 1990 report and was exerting undue influence over its policy making. Top of the list was the so-called International Life Sciences Institute, founded and funded by Coca-Cola, Pepsi-Cola, General Foods, Kraft and Procter & Gamble - some of the biggest food and drink companies in the world. It would be naive in the extreme not to think that the meat and dairy industry, which dwarfs all others in term of size and political clout, has not also been at work behind the scenes.

Beyond rhetoric

If it is read with a critical eye and between the lines, the 2003 report does offer some indictment of animal products and does link them with ill health. What it fails to do is repeat the call of the 1990 report and state forthrightly that there must be a massive reduction in the amount of animal products consumed worldwide if health statistics are to improve. In its closing sentence it says:

'Beyond the rhetoric, this epidemic [of chronic degenerative diseases] can be halted - the demand for action must come from those affected. The solution is in our hands'.

Yes, the solution is in our hands and what needs to be done isn't a mystery. But before those whose health is suffering are likely to act with determination, the conflicting messages from governments and NGOs alike must be ended and health advisory bodies everywhere must tell it like it is. And that means relying on science, resisting the pressures of an unscrupulous industry and having the courage to stand up to politicians, who are equally as guilty in this unedifying tale of deceit.

The profits of big business are being put before human health - which is bad news for us but good news for big business because ill health and the myriad pills and potions it spawns, is yet another huge profit centre. Maybe that could explain why the messages on health emanating from our own Department of Health are as weak and feeble as they are and why they have done little to curb the burgeoning epidemics of degenerative diseases and improve our children's diet.

Diet, Nutrition and the Prevention of Chronic Diseases, World Health Organisation, 2003, Technical report series 916.