

THE OTHER SIDE OF THE STORY



GREEN HEALTH WATCH ARTICLE FROM EDITION 32

The Real Cause of Cancer

In Green Health Watch 24 we briefly reported Dr Otto Warburg's recognition of the importance of proper tissue cell oxygenation in the prevention of cancer, and Professor Brian Scott Peskin's guidelines for maintaining/restoring good tissue cell oxygenation by ensuring adequate bloodflow speed and adequate blood levels of essential fatty acids and haemoglobin. Here we go into greater depth.

Otto Warburg

Many causes have been suggested for the current cancer epidemic - chemical pollution, pesticides, diet, not enough exercise, electromagnetic radiation - the list goes on and on. But according to Professor Brian Scott Peskin, these should all be seen as 'contributory factors'. Following the largely forgotten work of Dr Otto Warburg published in 1925, Brian believes that the fundamental cause is insufficient oxygen in our body's **tissue** cells (medical term: hypoxia). Otto developed a way of measuring the oxygen pressure inside tissue cells and the degree of drop in pressure (35%) which permitted cancer to begin.¹ His work and its implications for research into cancer prevention have never been disproved (it earned him a Nobel Laureate in 1931) but *did not* and *does not* suit the medical politics of the time so has never caught on. Odd, really. Many cancer specialists these days happily accept that cancer cannot thrive in an oxygen-rich atmosphere.²

Brian's work with essential fatty acids

Brian believes that low oxygen levels in cells are due to inadequate levels of *undamaged 'parent'* essential fatty acids (PEFAs) in the tissue cells' membranes (see below). He explains that such PEFAs act as 'oxygen magnets', which attract the oxygen in the bloodstream and pull it through the membrane into the cell.³ Until the right levels and ratio of vibrant undamaged PEFAs are present, he states, no amount of organic fruit, vegetables, soy or fibre, omega-3 or fish oil, exercise regimes or national screening programmes will reduce the cancer epidemic a great deal. For Brian, the failure of the medical and dietary professions to curb the rising level of cancer over the last sixty years bears witness.⁴

Brian's lesson on PEFAs

1. There are two forms of essential fatty acids: a parent forms (PEFA - the original forms) and derivative forms (DEFAs - derived by the bodies of humans and other animals from parent forms to meet their needs). The parent form of omega-6 is linoleic acid (LA). The parent form of omega-3 is alpha-linolenic acid (ALA). The four most commonly consumed DEFAs are gamma-linolenic acid (GLA), conjugated linolenic acid (CLA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).
2. Most of the PEFAs consumed by the human body are, in fact, not converted into DEFAs but remain in their original

state in the cell membranes and tissue, performing their own essential functions. This is why, where we can, it is best to consume PEFAs in foods rather than DEFAs, as found in fish oils (see below) and in many omega-3/omega-6 supplements.

3. PEFAs are easily damaged by heat. To be of most use to the body, they must come from a very limited range of raw or, at least, very lightly heated, unprocessed foods. They are also damaged by chemicals like pesticides, so must come from organic foods wherever possible. As the human stomach cannot extract PEFAs directly from fruit, vegetables, grains or cereals, and as few of us eat raw meat, fish or eggs, the best sources of PEFAs are organic, unprocessed nuts and seeds, cold-pressed oils made from those nuts and seeds, and whole, unpasteurised, unhomogenised dairy products.
4. When damaged by heat or chemicals during processing, beneficial PEFAs can be transformed into *harmful* fats, like the trans fatty acids in hydrogenated fats which have been linked to heart disease and cancer.
5. Different organs in the body require different amounts and different ratios of PEFA omega-6 to PEFA omega-3 to function properly. Most organs require a 4:1 ratio, but the brain and nervous system, for instance, run happily on a 1:1 ratio whereas the muscles need a 5.5:1 - 7.5:1 ratio (depending on their physical condition) and, although not needing vast amounts overall, the skin needs a 1,000:1 ratio.⁵ As you can see, nearly all organs need more omega-6 than omega-3.
6. When the supply of PEFAs is less than the body's total requirement, the body prioritises delivery, feeding the organs it considers most important first: the brain, heart, lungs and kidneys. This, of course, results in 'less important' organs receiving inadequate supplies, leading to various illnesses.
7. Much of the PEFA omega-6 and omega-3 in the average diet in more industrially developed countries (MIDCs) has been damaged by processing. Because the body needs much less PEFA omega-3 than PEFA omega-6 overall, and because, in MIDCs, less of the PEFA omega-3 we eat is damaged, the key to better health is to find good sources of undamaged PEFA omega-6.
8. If the body cannot find undamaged, vibrant PEFA omega-6 or PEFA omega-3 to process, it uses damaged PEFAs or 'derivative' forms (DEFAs), and may even turn to other essential fatty acids such as omega-9 (as in olive oil), even though none of these three permit proper oxygenation of the cells. This is why one needs to replace the damaged PEFAs and excess levels of DEFAs in the diet with high levels of undamaged PEFAs.

9. The current media message to eat more omega-3 or more oily fish (ed.- advice Green Health Watch has often reported) is simplistic and dangerous. Many much-vaunted omega-3 sources - flax seed, fish oil, seafood, etc. - are overly abundant in both PEFA and DEFA omega-3. Fish, especially farmed fish, contains almost entirely DEFA omega-3. Excess levels of omega-3 block the beneficial 'oxygen magnet' process described above.
10. The people now consuming fish oils and supplements with high omega-3 ratios are almost certainly overdosing on omega-3. Consuming even average levels of fish oil supplements, in particular, can significantly suppress the immune system, increasing your risk of contracting cancer.⁶
11. Omega-6 is not a 'bad' but a 'good' fat. The body needs the right balance of undamaged PEFA omega-6 and undamaged PEFA omega-3 (anywhere between the ratios 1:1 and 2.5:1) to function properly. What dieticians *should* be telling us to do is to replace the damaged, polluted, processed omega-6 we eat (e.g. trans fatty acids in hydrogenated fats) with undamaged, organic, unprocessed, raw sources such as the cold-pressed, organic nuts and seeds mentioned above.

So what levels of PEFAs do we need?

Comparing the body's needs for undamaged PEFA omega-6 and PEFA omega-3 with the levels currently present in the US diet, Brian recommends that the average American needs at least three grams (three-quarters of a gram/a teaspoonful for every 35lbs. bodyweight) of a high quality supplement containing cold-pressed, organic PEFAs with an omega-6 and omega-3 ratio of between 1:1 and 2.5:1. This includes a little extra undamaged PEFA omega-6 to 'overcome' and replace the large amounts of damaged

omega-6 in the diets of most people living in the more industrially developed countries (MIDCs).

Dietary Sources

If you want to get your PEFAs from food, (liquids) five grams of organic, cold-pressed, high linoleic sesame oil plus two grams of organic, cold-pressed flaxseed oil a day, or (solids) 10gm of raw, organic pumpkin seeds a day should do the job. Using food sources which, combined, deliver PEFAs in the omega-6 to omega-3 1:1 - 2.5:1 ratio is very important. Ratios beyond either end of this range do not appear to help tissue cell oxygenation.

Supplements

A PEFA supplement of cold-pressed organic blended oils which carefully follows Brian's recommendations is made by the company Your Essential Supplements. The cold-pressings took place at 49°C, which Brian considers will not damage the oils.

Your Essential Supplements' EFA Formulation is available (at \$39.75 incl. post and packing for a month's supply - discounts on repeat orders) from Your Essential Supplements ☎ toll-free 866-YES-1124 www.yes-supplements.com

How do I assess my PEFA status?

The recommendation of three grams of organic, cold-pressed PEFAs a day in an omega-6 to omega-3 ratio between 1:1 and 2.5:1 is based on a combination of the current average PEFA status of people living in the United States and the current EFA mix (damaged and undamaged) in their diet. If your diet contains more undamaged PEFA omega-6 than the average, your ideal omega-6 to omega-3 intake ratio should be nearer 1:1 than to 2.5:1. If, on the other hand, your diet contains more damaged PEFA omega-6 than average, your ideal omega-6 to omega-3 intake ratio should be close to 2.5:1. But how does one know what one's omega-6 to omega-3 balance currently is and whether, therefore, one needs to address an imbalance?

Brian recommends the following test based on the science of fitness building ...

1. Take 1,500mg of PEFAs with an omega-6 to omega-3 ratio within the range recommended above.
2. Wait 20 minutes.
3. Work out one of your biceps with a weight like a dumb bell until the muscle is exhausted and fails to lift.

If there is simply exhaustion, but no 'burn' (which is caused by excess levels of lactic acid), your PEFA status is good and your tissue cells adequately oxygenated. Adequately oxygenated muscle cells quickly use up all available lactic acid, so no burn.

Brian states that the skin on the back side of the hand between the thumb and finger is another good PEFA marker, even for people with significant dry skin problems. When your PEFA status is good, the skin there should be very soft and smooth.

Finally, he states that when a body's PEFA status is good, the appetite is fulfilled "with significantly fewer cravings". Hunger is slower to develop, that 'starving' feeling rarely experienced.

Contra-indications

1. Essential fatty acids are natural 'blood-thinners' (see Ed. ii). people who are haemophilic, undergoing surgery or

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taking anti-coagulant/'blood-thinning' medications (including aspirin, heparin and warfarin), should have their coagulation status monitored when using PEFA supplements. You should require less of the drug when supplementing with the proper PEFA recommendation.

2. People with reduced immune systems should not consume fish oils or seeds/seed oils abundant in omega-3 like flax seeds and flaxseed oil.
3. Pregnant women, nursing mothers and people with breast or prostate cancer should avoid supplements containing high levels of PEFA omega-3 alone or omega-6 alone. A supplement containing organic, cold-pressed PEFA omega-6 and omega-3 within the ratios stated above is required. Pregnant women taking high levels of PEFA supplements should have their blood coagulation status checked regularly during their pregnancy.
4. Essential fatty acid supplements containing DEFAs or damaged PEFAs can interact with herbs (like garlic and ginkgo biloba, chamomile, white willow, dong quai, feverfew, ginger, garlic, devils claw, boldo, fenugreek, PC-SPES (a combination of herbs designed for the treatment of prostate cancer), Policosanol (an extract of sugar cane), papaya extract, reishi (a Chinese mushroom), sometimes causing nosebleeds and easy bruising.

Ed.- (i) For more information or to buy Brian's ground-breaking new book, *The Hidden Story of Cancer*, visit Brian's website <http://www.brianpeskin.com>. The book is also available (£22) from The Nutri Centre in London, ☎ 020 7436 5122 www.nutricentre.com

(ii) The term 'blood-thinner' is a misnomer. The blood does not become less dense, but less able to coagulate. The term 'anti-coagulant' is correct.

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