

CARDIOVASCULAR DISEASE

?and the CHOLESTEROL SAGA

by Walter Last

For many years we have been inundated with anti-cholesterol campaigns and suddenly now we hear or read of one scientific study after another telling us that cholesterol, after all, may be good for us.

The first major shock for the cholesterol-heart disease theory came in 1990 with a publication in the *British Medical Journal*. It was an analysis of six major intervention trials involving tens of thousands of people over several years. The result was unexpected. There was indeed a small reduction of about ten per cent in cholesterol levels and a reduction of 14 per cent in the rate of death from heart disease in the groups treated medically with drugs and low cholesterol diets.

However the total number of deaths was significantly higher in patients with medically lowered cholesterol as compared to controls. This included not only higher mortality from cancer, but surprisingly, on average, a 67% higher mortality from violent death, such as accidents, homicides and suicides. This high rate of death from violent causes was found in every single one of these six trials - unlikely to be mere coincidence.

In looking for an explanation, researchers discovered that monkeys became more aggressive on a diet low in cholesterol and saturated fat, and human studies further found that criminals, on average, had lower cholesterol levels. This applied quite generally to individuals with aggressive or violent behaviour or limited self control and also those involved with homicide and suicide.

Another scientific publication voiced concern over evidence that about half of the men who die of sudden heart attack do not have any of the risk factors commonly associated with heart disease, such as elevated cholesterol or blood pressure, diabetes, obesity or smoking. This would suggest that the main cause of heart attacks is still unknown to medicine.

Another major study to come out was even more devastating. The headline in *The Australian* read 'Cutting Cholesterol Can Kill You'. This Finnish study followed 1,222 Helsinki businessmen considered at high risk of heart attack for 15 years. Half were put on an intensive program of dietary regulation and other treatment while the other half served as control. After 15 years the low-cholesterol group had 67 deaths overall with 34 from heart disease. The control group had only half the overall deathrate with 14 cardiac deaths.

In the light of this result the medical director of the British Heart Foundation admitted that the existing advice to cut cholesterol was not based on 'definitive research'. What, then, was it based on?

While Professor Shaw, the director of the National Heart Foundation in Australia, publicly defended the anti-cholesterol stand of our health authorities, Ray Johnstone, a former senior research fellow with the NHMRC, challenged anyone to produce one trial, which has produced any change in mortality other than an increase as a result of medical intervention. To illustrate the scope of this research, one such trial costs about 200 million dollars and there were about 23 such trials. Surely it would be better to spend taxpayers' money on something more constructive, such as looking for the real causes of heart disease?

Why we need cholesterol

The cholesterol saga started several decades ago when researchers found that those dying from heart disease also frequently had elevated blood cholesterol levels as well as fatty plaque, called atheromas, which clog up the arteries of the heart muscle. These atheromas consisted of wildly proliferating smooth muscle cells filled surrounded by a fatty sludge containing a high level of cholesterol.

Medical authorities believed that cutting down on our cholesterol intake would lower our cholesterol blood levels and thus reduce the risk of heart disease. Biochemists, however, were generally sceptical of this idea. After all, the liver itself produces most of our cholesterol requirements. Approximately one gram daily is synthesised from the breakdown products of saturated fats and sugars and less than half

a gram is absorbed from our food. The more cholesterol we absorb, the less is produced in the liver. With this, the overall cholesterol level remains fairly stable. Any surplus cholesterol is normally excreted with the bile.

Actually, cholesterol is a very valuable and useful substance. It provides the basic structure for the synthesis of steroid hormones and vitamin D and it is a major component of cell membranes, especially high in the brain and nervous system. In the liver it is converted into bile acids and bile salts needed for the digestion and absorption of all lipids and fat-related substances. However, if we are deficient in the emulsifier lecithin or in sulphur amino acids, cholesterol may accumulate as gall-stones.

So you can see that it is very important for us to have enough cholesterol. Furthermore, some wasting diseases, such as cancer, are associated with a cholesterol deficiency, and hypoglycemics are commonly found to have low cholesterol levels.

How we produce cholesterol

Why then do some people get raised blood cholesterol levels when the liver is supposed to keep cholesterol stable? Obviously, in these cases something must interfere with the regulating mechanism in the liver. This something is the trio of sugar, starch and saturated fat.

When we ingest sugar our blood insulin level is raised. A key enzyme of cholesterol synthesis is actually regulated by insulin. This means a higher sugar intake generates a higher insulin level and with this higher fat and cholesterol production.

The word 'sugar', however, does not simply mean sucrose, our common household sugar. There are different forms of sugar. Sucrose is a combination of glucose and fructose. Fructose actually has a much greater influence on insulin levels than glucose. Human liver biopsy samples converted fructose into fatty acids and cholesterol at rates three to 24 times faster than glucose, with the highest rates occurring in those with a disposition to atherosclerosis.

While fruits contain fructose in addition to glucose and commonly in combination with fruit acids, this is usually beneficial to produce energy rather than cholesterol. However, if fruits are combined with starches, then the greatly increased insulin levels due to the presence of fructose cause more of the glucose from the starches to be converted to fats and cholesterol.

An even stronger insulin effect than by ingesting equal amounts of glucose and fructose occurs when eating these simple sugars chemically combined as sucrose. This is called the disaccharide effect. Even monkeys produced three times more deposited lipids on a diet high in sucrose than with glucose. As with fruits, this effect is magnified if sucrose is combined with starches. It is greatest in combination with easily digested starches, mainly refined grain products, or flours and cereals.

After eating a meal of sweetened cereals the body is in danger of being flooded with glucose. To prevent a dangerous rise in blood sugar levels, the glucose needs to be converted into a more harmless product. To a limited degree this can be done by forming glycogen for short-term storage. Later, as needed, this can be converted back to glucose. However, the glycogen store is quickly filled up and any additional glucose will now be converted into saturated fats and cholesterol for long-term storage.

If, in this situation our diet is also high in saturated fats, then these just increase the existing oversupply. If the body has a good fat storage system, then it just puts on weight. If the transport into storage is more limited, then fats and cholesterol accumulate in the blood and start clogging up the blood vessels.

Oxidised cholesterol

We can now see that a diet high in sugar, refined starches and fat is the main cause of a raised cholesterol level. In contrast the cholesterol content of our diet has been repeatedly shown to have little impact. Yet this still does not prove that there is a causal relationship between elevated cholesterol levels and heart disease.

However, such a direct connection has been shown to exist with oxy-cholesterol. If cholesterol in food is heated, especially with access of air, then it is oxidised to oxy-cholesterol. Animal experiments with

high intakes of either cholesterol or oxy-cholesterol have shown atherogenic degeneration only with the latter, not with cholesterol itself.

This would imply that a main contributing factor to our high rate of heart disease is our habit of overly heating and in particular frying meat, eggs and milk products. However, once the arteries are damaged, then high cholesterol levels may or may not contribute to the deposits of fatty sludge.

Further clues can be found in the history of heart disease. Heart attacks were extremely rare in earlier centuries, and even at the beginning of this century. A medical textbook published in 1912 describes angina pectoris, a mild form of heart attack, as being very rare, and a famous American heart specialist did not see his first heart attack patient until 1920. Yet from about 1920 the explosive rise in the incidence of heart disease began in Western countries.

The recently published statistics of an extended family with genetically high levels of cholesterol confirms this picture. During the 1800's members of this family actually lived longer than the average for that time but from 1915 onwards their rate of premature deaths began to rise and reached a peak around 1950.

As China and other developing countries remain free of heart disease, we may ask what was it that fundamentally changed the lifestyle of Western populations at that time? Two important changes took place: the chlorination of public water supplies began at the turn of the century, and the pasteurisation of milk products became compulsory.

Pasteurised milk, fats and oils

Before pasteurisation nature-cure doctors recommended milk as a cure for many illnesses. Raw milk cures were famous at the beginning of the last century. Formerly people consumed plenty of cream and butter, and rich meals prepared with them, and in Bulgaria and the Caucasus they set records in good health and longevity on full-fat milk products. An American doctor routinely cured psoriasis by having his patients eat two pounds of butter a week! Despite all of this fatty food heart attacks were virtually unknown.

Now, milk is no longer a cure for any disease - on the contrary - natural therapists generally regard milk as disease forming, butter is known to aggravate psoriasis and heart disease is rampant. The difference? Heating over 50°C destroys the enzymes plentiful in raw milk.

Some diseases that were formerly improved with raw milk can now be successfully treated with high-level enzyme supplements. Specifically, it is the fat-digesting enzyme lipase, which works most of the healing miracles (see the article [Lipase and the Fat Metabolism](#)). With cardiovascular disease there is a deficiency of lipase in the bloodstream. Lipase released by the pancreas helps to digest fats, while lipase in the bloodstream and cells helps to break down unwanted fatty deposits.

There are, however fats and oils that are even worse than pasteurised butter. These are the oils with a high content of unnatural trans-fatty acids, such as margarines, shortenings and hydrogenated oils and fats, and to some degree even our common salad and cooking oils. Trans-fatty acids are not only produced by hydrogenation but also by heating of oils. Fats and cholesterol are transported in the blood in the form of lipoproteins, and trans-fatty acids produce a more unfavourable lipoprotein profile than any other fats. They are not readily metabolised either and tend to clog up the system.

Water chlorination

Experimental use of chlorine to kill bacteria in public water supplies began around the turn of this century and was generally accepted in Western countries in the 1920's. Part of the chlorine reacts with organic impurities to form organochlorins (DDT is an Organo-chlorine) while the rest remains as residual free chlorine in the water. It may then react either with food chemicals or with parts of our digestive tract.

From 1920 onwards the explosive increase in the incidence of cardiovascular disease and fatal heart attacks began, but only in countries that chlorinated their water supplies. These diseases remained unknown, for instance, in Africa, China, Japan, and other parts of ASIA. However, when Japanese citizens immigrated to Hawaii

where water was chlorinated, they suffered the same rate of heart attacks as the Americans, and the black population in the US have the average US rate of heart attacks but not their brothers in Africa. Inhabitants of the non-chlorinated Roseto in Pennsylvania remained free of heart attacks unless they moved to a chlorinated area.

In 1967 a Dr J. Price in the US performed a decisive experiment. With one group of 50 three-month-old chickens (cockerels) he added one third of a teaspoon of chlorine bleach to about one litre of water whilst another group of 50 chickens served as controls. Seven months later over 95 per cent of the chlorinated group had advanced atherosclerosis, yet none of the control group showed any such evidence.

In the following years Dr Price repeated his experiment many times, always with the same results, and recently even researchers funded by the US Environmental Protection Agency have confirmed atherosclerotic type changes in other animals, including monkeys, when exposed to chlorinated water.

Deficiencies

Other contributing factors in cardiovascular disease are vitamin B6 and magnesium deficiency, high ferritin or iron levels, a low intake of omega-3 fatty acids, and chronic dental infestations with specific bacteria. Dr McCully discovered in the 1960's that with vitamin B6 deficiency a toxic breakdown product of the amino acid methionine accumulates. This chemical, homocystine, causes free-radical damage to the arteries. Even young children with vitamin B6 deficiency were found to die of rapidly developing atherosclerosis.

Dr Suzman in South Africa specialised in treating heart patients with 200 mg of vitamin B6 daily, in addition to B-complex tablets. He had remarkable success with extremely low re-infarction rates. In addition, folic acid lowers homocystine levels, especially in combination with vitamin B12. High iron levels have been strongly linked to free-radical damage in the arteries and subsequent plaque formation.

WHAT CAN WE DO?

Public Health officials claim wrongly that water chlorination is essential to prevent microbial contamination. Public water supplies can be made safe with ozone or exposure to ultraviolet light at no greater expense than with chlorine. Even sunlight is very effective with 99.9 per cent of coliforms (pathogenic bacteria) killed within 90 minutes in one experiment. For sterilising our individual water supply we may simply add a teaspoon of 3 per cent hydrogen peroxide (best food-grade) to several litres of drinking water or expose it either in a shallow container or even in a clear glass bottle for several hours to sunlight.

?Fats and Oils

In many countries it is illegal to sell raw milk products. Nevertheless, make an effort to obtain non-pasteurized products whenever possible. Sometimes they are available as pet milk or bath milk.? Recently I heard an Australian cheese producer saying on ABC radio that he submitted some of his self-produced unpasteurized cheeses for testing. They were completely free of pathogenic bacteria unlike pasteurised products, which commonly contain disease-causing microbes up to a legal limit.

The reason for this superior safety of raw cheeses is their high content of lactobacilli, which kill harmful microbes, while in pasteurised products any survivors or contaminants can multiply unchallenged. Therefore, milk products correctly fermented with lactic acid are not only healthy but also safe, unlike their pasteurised counterparts.

Avoid highly heated fatty and oily foods, especially if heated with access to air as in frying. Not only are heated animal fats harmful when they form oxy-cholesterol, but also polyunsaturated oils that are oxidised and peroxidised. However, if you do eat fried meat, then remove the outer browned parts.

Use vegetable oils that have not been heated to more than 45⁰C at the most. Generally, I trust only high-quality linseed oil,? cold processed cod liver oil and extra virgin olive oil to fall in this category, in addition to some speciality oils if the label states that they have been produced below 45⁰C. Oils simply labelled as being cold-pressed may or may not fall into this category. Fish oils and linseed oil are high

in omega-3 fatty acids that are anti-inflammatory and also protect our arteries from clogging up.

However, the most important ingredient of fatty foods is the fat-digesting enzyme lipase. It is highest in unheated animal fats, raw coconut cream and avocados. If you cannot obtain and use these in unheated form, then it is advisable to use lipase supplements. Low doses with meals (about 5,000 to 20,000 LU) aid in the absorption and utilisation of lipids, while fat deposits and plaques may be mobilized and clogged arteries cleaned out with up to 200,000 LU in divided doses before meals. For further details see [Lipase and the Fat Metabolism](#).

Other Foods and Remedies

For overall health, as well as for heart health, cut down on sweet food, in particular minimise the combination of starches with sugar or fruit that cause most of the harmful effects of an exaggerated insulin response. Basically, this means eating fruit on their own well before meals containing vegetables or starches. The best action for affected individuals is to avoid all grain or cereal products until the arteries are cleared, and then use only a moderate amount of non-gluten grains, such as millet and brown rice.

In addition, various specific nutrients have a protective effect, such as ginger, green tea, grape seed extract, vitamins C and B6, natural vitamin E and magnesium, especially my favourite magnesium chloride. Commonly about 5 g of vitamin C in divided doses should be sufficient, part of this as ascorbic acid. However, this is not needed on a diet high in fresh fruit and vegetables.

All coloured foods are good and especially purple foods such as beetroot, dark grape juice and including red wine. In addition to an anti-inflammatory effect, these nutrients have an anti-coagulant effect and discourage the formation of damaging blood clots. With seriously ill patients the so-called Pauling therapy is helpful: in addition to other recommended nutrients use 5 to 10 g of vitamin C, 5 to 6 g of the amino acid lysine and 2 g of carnitine daily, all in 4 divided doses.

Clogged arteries may also be cleaned with 4 to 6 drops of a saturated solution of potassium iodide (SSKI) in addition to sufficient niacin to produce flushing, usually 50 to 250 mg. For best results also use sufficient omega-3 fatty acids, magnesium, lecithin and sulfur in your diet (e.g. onions, eggs, or MSM).

It has been shown with electro-acupuncture diagnosis that there is an interference connection between the jawbone position of the wisdom teeth and the heart. Such interference arises either from dead or bad wisdom teeth or from chronic inflammation or osteitis in this jawbone position, which may remain there indefinitely, even after extraction of the tooth. The normal remedy is to scrape out (curette) the affected area. Also microbes from dead or root canal treated teeth and from inflamed gums have been linked to heart disease. Routinely gargling with diluted hydrogen peroxide can do much to reduce microbial infestations in the mouth.

In reflexology there is a connection between the heart and the soft pad at the base of the left thumb. If there is a heart problem, this part will be rather sensitive when pressed. Heart diseases and especially acute conditions can be greatly improved by repeatedly and for long periods pressing strongly into the base of the left thumb. Heart attacks reportedly have been stopped in their tracks by doing this. In an emergency press as hard as you can, at other times only as much as you reasonably can stand the pain. As the condition improves, the tenderness at the base of the left thumb will gradually lessen.

Restoring a Healthy Cardiovascular System

Bypass surgery or stents do little to restore a healthy cardiovascular system. If the diet is not improved, then arteries just continue clogging up, and there is little if any overall benefit for patients from these medical procedures. However, there are very effective and fast-acting methods to clean out congested arteries.

1) Go for several days on a lemon juice fast: ten to twelve times during the day in hourly intervals drink a large glass of purified water or herb tea with the juice of a quarter of a lemon, no other food. This is also a good way to restore sensitivity to insulin, or normalise the blood sugar regulation, or if you want to lose weight. However, it will be more effective if you combine it with a program of intestinal sanitation: first thing in the morning take a tablespoon of Epsom salt and crushed garlic in a glass of water, an hour later take some acidophilus culture with your first lot of lemon juice. If you cannot use

the Epsom salt and garlic, then take instead a teaspoon of psyllium hulls in a large glass of water once or twice a day to ensure continued bowel movements during the fast.

Citric acid reacts with fatty acids to produce energy. As long as you have fatty deposits, you can easily live on lemon juice. This is not fanciful as basically all of our food is internally converted into citric acid before it is converted into energy. However, to convert citric acid completely into energy, it needs to react with the breakdown products of fatty acids, see [The Cellular Energy Metabolism](#) for a diagram of this process. The late Dr Carey Reams reputedly cured thousands of diabetics of both types with a 3-week lemon juice fast that cleared the body of unhealthy fat deposits. Every hour or ten times daily patients would drink a glassful with one part of lemon juice and 9 parts of water, followed after 3 weeks by an allergy-tested natural diet.

2) A milder procedure allows you to continue eating your normal healthy diet but each day you take a mixture of garlic and lemon. In a blender vitamix the following: about 30 peeled cloves of garlic, 5 lemons with skin (cut into smaller pieces), and some additional water. After blending rinse the blender with some more water and bring the mixture to boiling in a non-metal pot. Let it cool, strain and bottle the lot, keep refrigerated. Aim to have about 1 litre of liquid, the more creamy it is the better. Take a liqueur glass or about 30 ml of the mixture once or twice a day with a meal for 3 weeks. You may either continue doing this until you believe your blood vessels have sufficiently improved, or interrupt for a few weeks and then have another round of the mixture. Continue this until you can assume that your arteries are clean.

3) Three times a day during a meal take one teaspoon of powdered cayenne in a small amount of water so that you can swallow it in one gulp. Then immediately drink some more of a suitable liquid, and eat something as well. A large amount of cayenne commonly is no more irritating or hot than a small amount. Cayenne is excellent for restoring the health of the blood circulation system.? For more information about the benefits of cayenne see <http://www.herballegacy.com/cayenne.htm>. Dr Christopher also claimed that this method would normalise the blood pressure, and that a spoonful of cayenne in water would quickly end a heart attack.

4) This one is my preferred blood vessel cleanse for quick results.? Use mainly tart varieties, such as Granny Smith, and eat them spaced out during the day instead of in meal portions. Try to obtain organic apples, otherwise scrub them in warm soap water and rinse well. Preferably ingest the peels as well. If apples are out of season and not available, you may use a small raw vegetable salad instead, use only lemon juice and cayenne as salad dressing (no mayonnaise).

In addition, also spaced out during the day, drink (purified) water or herb tea with the addition of lemon juice. Use 1 part of lemon juice to 9 parts of water. Preferably drink a glassful of this every hour or ten to twelve times a day.

It is beneficial to stir about half a teaspoon of spirulina powder into the lemon juice drink.? You may also use chlorella powder instead, or barley grass or wheat grass powder (or juice), or a mixture of all or several of these, in addition to a teaspoon of bee pollen.

If the lemon drinks taste too acid, partly neutralize the lemon juice. The healthiest way is by keeping the juice of a lemon in contact with a spoonful of dolomite powder for about an hour or two. When needed for a drink, pour off the required amount. Add more lemon juice to the dolomite as needed. The next day use fresh dolomite powder. If occasionally you do not have sufficient lemon juice at hand, you may use a tablespoonful of (organic) cider vinegar in a glass of water.

Each morning for the duration of the cleanse take a large glassful of water with about a tablespoon of Epsom salts, more or less as required to clean out the bowels. Add to this a clove of garlic crushed in some lemon juice; lemon juice reacts with garlic to reduce the smell. Immediately afterwards drink more water or herb tea. Any water for drinking and cooking should be free of chlorine and added fluoride, use a water filter if necessary or buy suitable water. (Normal water filters do not remove fluoride).

If you cannot use Epsom salts, then take instead a teaspoon of psyllium hulls in a large glass of water once or twice a day to ensure continued easy bowel movements during the fast.

If you cannot take garlic, try putting it into capsules. About one hour later take with a glass of diluted lemon juice either several teaspoons of milk-free acidophilus culture or several high-potency acidophilus capsules, preferably containing bifido bacteria, and possibly also other lactobacteria.

Preferably do this cleanse for about a week, and repeat several times a year. If you can do it only on

weekends, then do it for 4 Or 5 weekends. Caution: During cleansing periods unpleasant symptoms may temporarily develop.?

If these are too severe then interrupt the cleanse and repeat again at a later time. However, some nausea, weakness or headaches are common, especially in the beginning. For more details about such reactions read the [Healing Crisis](#).

HOME	HEALING FOODS	BODY	DISEASES
ENERGIES	EMOTIONS	MIND	SPIRITUALITY