

The Truth About Cholesterol

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Article by Marek Doyle, www.blueprintfitness.co.uk

Do you know someone who is concerned with their cholesterol? If you live in Britain, it's almost certain you do. It's one of the most popular issues to adorn the health pages in every newspaper, and whilst many know what their 'cholesterol number' is, hardly any know what it means. Cholesterol is a problem that has crept into society, and the current approach to dealing with it is not improving the situation... in fact, it's getting worse each year.

Most advice or clinical instruction disregards the three principles that should always be considered when dealing with cholesterol issues. First and foremost, your 'cholesterol number' is not useful on its own. Secondly, cholesterol is a symptom of a problem, not the cause. The other thing to consider is that there is no finite figure at which cholesterol becomes a problem; everyone is different and, so too, the margins of their 'risk zones'.

First of all, it would be helpful to explain what cholesterol is exactly. Cholesterol is a waxy fatty substance produced in the liver and found within our blood vessels. It is necessary for life, as it plays a vital role in the cell walls and is the material used by our bodies to produce various hormones (including testosterone). However, too much cholesterol causes problems and it is these properties that are focused on most often. Cholesterol can build up in the arteries as arterial plaque, a condition called atherosclerosis. Atherosclerosis narrows the vessels, which in itself leads to an increase in blood pressure. Cholesterol is generally measured by the medical profession in millimoles per decilitre (mmol/dl). Doctors recommend that this number stay below 4.2mmol/dl.

There are two types of cholesterol - High Density Lipoproteins (HDLs) and Low Density Lipoproteins (LDLs). HDLs are considered 'good cholesterol', whereas LDLs are labeled 'bad cholesterol'. The names refer to the construction of cholesterol, which sees a fatty element (lipo) attached to strands of protein to form the finished particle that travels through the blood stream. LDLs are the type that have a tendency to stick to the blood vessel walls (causing atherosclerosis), which is why they are universally despised, whereas HDLs counteract the bad effects. These little soldiers religiously 'sweep' back the build-up back to the liver, where it can be excreted from the body. So naturally, it is desirable to increase the amount of HDLs you have in your blood stream. As with so many things in life, the quality of the cholesterol is much more important than the quantity.

But why, if there is such a massive difference between these two types of cholesterol, does the doctor simply take some of your blood and come back to you with a 'cholesterol number'? I wish I could tell you... this haphazard diagnosis leaves far too much guesswork. It does tell you a little, but not the

information you need to know; the total LDL level and the LDL: HDL ratio. The total LDL level is the most important figure in assessing the likelihood of arterial plaque. A LDL:HDL ratio of more than 3:1 is unhealthy, and increases the risk of problems developing quicker as you do not have the necessary 'sweepers' to keep the accumulating LDLs under control. This is why you should always insist that the doctor carry out a 'lipid profile', which paints a full picture of the situation within the blood stream. (Triglycerides are fats produced in the liver that circulate in your blood and are an essential source of energy for your muscle tissues - however, in excess, they are linked with heart disease and increase fat storage under the skin).

So what causes a high cholesterol count? Probably not what you have been told! A lot is made of encouraging people to stick to a low-fat diet or a low-cholesterol diet, but in reality this bears little relevance to the blood cholesterol in an individual. The worry is that putting cholesterol into the stomach will increase the amount put out in the blood stream. But the body does not work this way; using this logic, we would be able to make our urine bright yellow by eating lots of sweetcorn, bananas and yellow smarties!

The truth is cholesterol is manufactured in the liver at the rate of about 1000mg per day. The liver responds to the ingestion of dietary cholesterol, lowering its production accordingly. (Eg. If you were to eat 5 eggs - or 300mg of cholesterol - your liver would halt production at 700mg for that day). The reality is that your liver will create a surplus of cholesterol only if it NEEDS to.

Your liver decides it needs to create and release more cholesterol only when the inner walls of your arteries are damaged - cholesterol is required to aid the repair and so it is released to do this job. Where the problem arises is when there is an unnatural level of arterial damage and the cholesterol count becomes equally unnatural. So what is the cause of this damage? *Poor quality processed food, stimulants (eg caffeine etc) and stress.*

Processed junk food contains chemicals such as pesticides. Amongst other harmful elements, these pesticides are full of oxidants and free radicals, which damage the cells of the artery walls. The problem is arterial damage and the cause is processed food. Your body responds to this problem by releasing excessive LDL cholesterol; as I mentioned towards the start of the article, *cholesterol is the symptom of a problem, not the cause.*

It is worth pointing out at this point that some individuals do have an inherited tendency to for higher cholesterol (*homozygous familial hypercholesterolemia*). This genetic issue involves a defect of the LDL receptor in the liver - the mechanism through which statins work. This means that if statins reduce your cholesterol levels, you didn't need them. For these individuals, natural compounds like Sytrinol are useful to normalise enzyme levels in the liver, although a liver detox is normally in order.

However, for almost every individual, the best and only effective solution to this problem is to change the quality of your diet. Microwave meals, treats like biscuits and cakes, fast food and anything that contains lots of E numbers or preservatives (like sodium metabisulphate etc) should be avoided. As a rule of thumb, the more the food resembles the state in which it came off a tree/out of

the ground, the better it is for protecting your insides. *Natural, healthy foods result in natural, healthy cholesterol levels.*

The other way to reduce the amount of LDLs you have in your blood stream is by increasing the amount of HDLs you have (these are the chimney-sweeping types). The only way to do this is through intense resistance training. As well as improving overall body composition and releasing surges of helpful blood-regulating chemicals like prostaglandins, this intense activity causes a significant increase in the production of HDLs in the liver, which will improve the LDL:HDL ratio mentioned earlier and avoid the associated risks with a substandard ratio. I would stress the importance of addressing any cholesterol problem holistically – both with a balanced and natural diet, together with some extensively beneficial resistance work.

Statins are not the answer. Statins are quick-fix drugs prescribed by doctors which interfere with the livers metabolic process and result in lower cholesterol production. There is no doubt that there is a noticeable drop in harmful LDL levels, but its far from spectacular. But you will then become reliant on drugs for relatively little benefit (a 10% reduction is not really what I would call a breakthrough) and, most importantly, your HDL production will be affected in equal measure. So what is the consequence? Well, if your LDL:HDL ratio is hopelessly unbalanced, the HDL sweepers cannot contain the steady rise in LDL levels; by bringing both of these down and not addressing the root cause, you are simply setting the scene for a repeated rise. Would you then increase the dose of statins? And the next time too?

Like every bodily mechanism, we have been perfectly tuned by thousands of years of evolution. Evolution dictates that if our physiological processes were not perfect, we would not have survived above other beings that were merely 'near perfect'. For most of us, our caveman bodies are not tuned for such a physical exertion deficit – added to that the ignorant consumption of contaminated junk sold as 'food' and it is clear we have massively changed the playing field that our bodies had attuned themselves to. Therefore, we must strive to change it back to something resembling a natural state of play.

Obviously, real life means that changes are never as easy as I describe them here. The clear dominance of processed food on our supermarket shelves hardly helps. However, all that is required for a real positive change in your health is a decent understanding of the real facts and adequate commitment towards action. I have provided the first half and I would encourage you to add the other as a first step towards the rest of your improved being.

Marek is a personal trainer, nutritional therapist and allergist operating in Kensington, Chelsea, West London and Basingstoke. He is the director of Blueprint Fitness, www.blueprintfitness.co.uk