

Dilemma with Cholesterol

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High cholesterol in your arteries is harmful. But, there are many people out there, having high cholesterol levels, but has not shown harm as a risk factor to heart disease, stroke and other chronic illnesses. People get heart attacks with low cholesterol, too. Cholesterol has become a confusing dilemma for people whether to believe or not that this hype of high cholesterol is harmful.



Doctors take blood from your veins to check cholesterol levels in your arteries. Thickening of veins and plaque formation never occurs in the veins though blood is tested from the veins for cholesterol levels. Thickening occurs in the superficial veins in the leg when they become varicose.

Cholesterol is an essential chemical in our bodies with a wide range of uses and application. Just as our body temperature is held within very fine limits for the whole of our lives (homeostatic mechanism), so are hundreds of other processes and chemicals. We don't need to measure and 'correct' even one of them; our bodies can and do regulate these automatically within fine limits and with great accuracy. Unlike body temperature, cholesterol rises naturally as we age and the idea that everyone, young or old, male or female, should all have exactly the same amount of cholesterol in their blood is, frankly, ridiculous

It is shown that cholesterol functions as an antioxidant as one grows old and bringing down the blood cholesterol levels may cause harm rather than benefits.

If your cholesterol level drops too low, as can happen by taking statins and being on a strict low saturated and low carb diets, may even lead to death. This has been published in medical journals. What it revealed was that after the age of 50, heart death rates increased by 14% for every 1 mg/dl. drop in total cholesterol levels per year.

If your cholesterol level in your blood is high should you lower it by taking statins and restricted dietetic control is the question we need to think about.

Cardiologists say that bringing your cholesterol to low levels lessens the risk of heart disease and stroke. But, the fact remains, more and more people are getting heart attacks globally, with all the care taken by people as advised by their doctors. More and more cardiac centres, more cardiac operating theatres and more doctors having cardiac speciality seems to be the order of the day. Doctors may attribute this increase in cardiac patient numbers to longevity. People do live longer today due to so many factors, such as better health facilities, more people participating in exercise regimes, understanding stress, better sanitation, and most of all exposure to more reading material for better health education.

Statin manufacturing companies in the States have becomes immensely rich and powerful. Statins are now recommended even when your blood cholesterol levels are within the normal ranges. It was recommended for dementia, Alzheimer's disease and so many other conditions once appearing in Time magazine and non-medical journals.

Cholesterol causing heart disease is well disputed today. They may be onlookers when two people fight and cholesterol does not initiate the fight.

Genes associated with high cholesterol

Though we blame sedentary lifestyle, a diet high in fat as the cause of high blood cholesterol, there is now evidence that a gene can also play a big part.

Previous studies have linked certain genes and **single nucleotide polymorphisms**, or SNPs, to causing high cholesterol levels. DNA consists of chains of nucleotides. SNPs are variations in single nucleotides within a DNA sequence and occur with some frequency across different populations (like Europeans or Asians). In order for this variation to be considered a SNP, it must occur in at least 1% of individuals. SNPs don't necessarily cause disease; however, they can influence the way

you respond to diseases, microorganisms, drugs, and the way you metabolize certain substances, including cholesterol. Researchers at Massachusetts General Hospital in Boston, MA wanted to identify the relationship between these SNPs and the incidence of high cholesterol and heart disease, and see whether or not they could predict the risk of heart disease in individuals having problematic SNPs.

The researchers looked at roughly 5,400 Swedish individuals for this study over a 10-year period. For this study, they examined HDL and LDL cholesterol levels, as well as the presence of SNPs on nine genes previously known to be linked to high cholesterol levels. They found that having more of the unfavourable SNPs corresponded to higher LDL levels and lower HDL levels.

'Chronic inflammation' seems to be cause of atherosclerotic plaques. What they found was that inflammation was the key factor in the initiation of the plaque and not LDL cholesterol, once believed to be. This vulnerable plaque was filled with different cell types that help with blood clotting, and the cholesterol found in them was just bystanders.

Pathogenesis of atherosclerosis (hardening of arteries with plaque formation) is associated with other chronic infections like rheumatoid arthritis, ankylosing spondylitis, polymyalgia, lupus and other inflammatory rheumatic diseases which includes psoriatic arthritis, and these latter inflammatory diseases also cause accelerated atherosclerosis associated with a high rate of death from heart disease. These diseases have a greater susceptibility to atherosclerosis. Atherosclerosis is also a normal aging factor in normal people, without any inflammatory condition as described above.

Statin tied to kidney injury

A new study finds that high potency statins are tied to higher risk of being hospitalized for acute kidney injury compared with less potent statins and that the risk persists for two years.

Lead researcher Colin Dormuth, of the University of British Columbia, in Vancouver, Canada, and colleagues, write about their findings in a BMJ paper that was published online on 19 March.

Statins are a widely-used class of drug for lowering cholesterol as a way to reduce the risk of cardiovascular disease, with higher doses prescribed for those at higher risk.

Largely as a result of clinical trials showing improved cardiovascular outcomes, there has been a trend toward increasing the potency of statins, either with larger doses, such as simvastatin or atorvastatin 40-80 mg, or with the more potent form, rosuvastatin.

But researchers are beginning to suggest that increasing potency may lead to adverse kidney problems, and because statins are so widely used, concerns are being raised about these adverse events.

Clinical trials don't involve large numbers of people, so adverse side effects may not be common enough to be identified, and it is only in post marketing monitoring, and analyses of large groups of patients, that they begin to show.

High blood cholesterol levels in blood and its linkage to atherosclerosis and heart disease, and whether statins should be used to lower cholesterol, is confusing to most doctors and patients equally. More research and evaluations are required for further knowledge on the management of heart disease and its linkage with cholesterol.