

Cholesterol ~ *Friend or Foe?*

Have you ever wondered why the body makes cholesterol? After all, since so many people are restricting their diet and even taking medications to keep their cholesterol levels under a certain level, does it make you wonder why the body was created with an innate and intelligent need to create cholesterol?

Well, without cholesterol, none of us would be here. Cholesterol is a base for all sex hormones - both male and female. The body also uses cholesterol to make vitamin D, produce cell membranes, make bile salts that help us to digest fats. The brain is 75% cholesterol and phospholipids, and the cholesterol is needed for our wellbeing. Extremely low cholesterol and LDL (low density lipoprotein) can be linked to cancer, hemorrhagic stroke, depression and anxiety.

But, what about plaque, cholesterol and atherosclerosis? Good question. When a person is low in antioxidants and at the same time is experiencing a lot of stress and free radical damage, if the person has a constitutional weakness in the vascular system, free radical damage can make holes or micro-wounds inside the vascular walls. When this happens, cholesterol is used like plaster material to patch up the micro-wounds. The cholesterol used for this is the LDL. This is mainly coarse fraction. LDL is produced more easily and faster by the liver than the HDL (high density lipoprotein) molecules. The LDL are missing an electron and become easily oxidized, which is dangerous like rancid fat - one of the most dangerous chemicals to the body.

Plaque causes little ulcer-like formations in the vascular system. These inflammations attract fibrin precipitation. This creates thrombocyte aggregation and could result in a possible heart attack.

What about cholesterol values? Contrary to popular views, the numbers to focus on are not just the total

cholesterol, but are on the values between the total cholesterol and the HDL. There should be a 4 or 5:1 ratio (minimum of 4:1). This ratio is an indicator of inflammation and free radical damage. If the ratios are good, it is unlikely there is inflammation to worry about. So, if a person has a total cholesterol of 200, then the HDL should be 50 or higher. Even if a person has a total cholesterol of 130 (considered good and low), if the HDL is below 33, then they are at risk of free radical damage and laying down plaque.

A colleague of mine used to work in a medical clinic in Germany. (In Europe they are not so quick to prescribe cholesterol lowering drugs). While working there, a gentleman came into the clinic for a check up. His total cholesterol was 400. Yet, the Doctors in the clinic did not see a need to put him on any medication for that. Why? Because his HDL was over 100. He ate a rich diet of high fats and fermented foods and had a happy family life. Even though his total cholesterol was very high, since his stress was kept in check and his ratios were good, he was not considered at risk.

So, it is very important to keep the vascular system - the arterial walls - flexible and well toned. Eating enough fruit and berries (especially berries), taking antioxidant supplements, while also managing stress can go a long way to keeping the inflammation down and preventing free radical damage.

Do you know your cholesterol numbers? Next time you go to the Doctor for a checkup, make sure you get **all** of the numbers - total cholesterol, the HDL, LDL, as well as the C-Reactive Protein. This way you will know your true risk factors, and if you are out of balance with your ratios you can make dietary and lifestyle adjustments to bring down your risks.