

Cholesterol



Everybody has heard to some extent about cholesterol. High cholesterol is bad or that there is good cholesterol and bad cholesterol. People keep hearing that they should keep their cholesterol low.

So what is cholesterol? Cholesterol is a very important component in the body it is used by the body in all cell membranes, it is used in the making of vitamin D, it is used in the creation of bile acids that are important for digestion, and it is used to make various hormones. In fact your body requires cholesterol to such an extent that it makes a great deal of the cholesterol it needs. Your body makes approximately two thirds to three quarters of the cholesterol found in your body.

Many people have been told that there is bad cholesterol, known as LDL cholesterol and good cholesterol called HDL. Because of this most people have a misconception about what cholesterol is. There is really no such thing as good or bad cholesterol there is just cholesterol as equated to HDL and LDL (esterified cholesterol is bad but that is another story). HDL stands for high-density lipoprotein and LDL stands for low-density lipoprotein both are a conglomerate of fat, proteins and cholesterol. LDL takes cholesterol from the liver to the rest of the body and deposits it generally where ever it is needed too much of this leads to cholesterol being deposited in areas that we do not like (the reason for this is significant, but I will cover this in another article) and this is why it is considered bad – because it is cholesterol that is transported in LDL that has negative effects on the body. Conversely HDL tends to scavenge cholesterol from the body and carries it back to the liver to be processed and tends to decrease the cholesterol in areas we do not like and this is why it is considered good. The cholesterol in each molecule (LDL and HDL) is not different, but the results and consequences of cholesterol are different.

Many people are currently keeping there cholesterol low with medications such as Lipitor®, Mevacor®, or Crestor® which carry some minor and major side effects that are relatively common. And many people would like an alternative to medication for cholesterol control.

If you are not one of those people who has a genetic predisposition to having high cholesterol, then there are a number of life style options available to bring cholesterol down and these are usually beneficial to overall health.

First would be to lose weight if you are overweight. Losing even 10% of your body weight if you are overweight can lead to significant cholesterol lowering effects. Many people who are overweight do not know where to begin, but the first thing to do is to take an honest assessment of your diet and exercise routine. Many people will need some help learning what choices are good and bad. There are many conflicting views on how to lose weight and many are in fact detrimental, in my opinion, while a few are balanced, and have good evidence that clearly shows

benefit to eating a certain way. I would recommend a Mediterranean diet, or adopting practices outlined by the Okinawan Diet Plan. So dietary change is the first step really.

In general there are a three big dietary things you can do. The first is to avoid trans fats. Trans fats in the diet come from things like shortening, French fries, or even Ramen noodles or Bisquick (so check the label). Dietary trans fats increase cholesterol in the system more than dietary cholesterol. What this means is that one-gram of trans fats (from something like a slice of pie made with shortening) increases your blood cholesterol more than one gram of dietary cholesterol (from a slice of pie made with butter instead of shortening). Trans fats are absolutely toxic. The next is to strive to adopt an anti-inflammatory diet (like the ones mentioned above). It may be that inflammation in your body is what is causing the increased levels of cholesterol to be produced. In fact some researchers think that one of the reasons statin drugs work effectively is because they are also anti-inflammatory. Finally adopt a diet high in fiber (which goes hand in hand with an anti-inflammatory diet).

Next you need to add some daily exercise. Try to get 30 minutes per day even if it is in 10-minute chunks there can be significant advantages and this will help with weight loss.

What about supplements?

Some people want to get off statins but would like to keep their cholesterol low until such time that diet and exercise can have the intended results.

There are a number of things that a person can do:

Increase Dietary Fiber:

Once you have made the proper dietary changes your fiber intake should reach acceptable levels but in the mean time you may want to add some sort of fiber supplement to jump-start the process. The reason dietary fiber is important to cholesterol levels is how it interacts with bile salts in the intestinal tract. Bile salts are released to help digest food and are made from cholesterol. Your body wants to conserve cholesterol and will absorb the bile salts back into the body to be reused. Dietary fiber (especially soluble fiber) will bind to bile salts so that they cannot be absorbed back into system. Your body then has to use cholesterol to make more bile salts. The more bile salts that are removed from the system the more cholesterol your body has to use to make new bile salts. Most people would do well to get at least 25-30 g/day and those that want to reduce cholesterol should get more (about 35g/day). With fiber it is important to slowly increase so as not to adversely affect the digestive tract. Also fiber can interact with some medications therefore it is important to monitor this.

Drink Green Tea:

All tea has beneficial flavonoids. A sub set of these known as catechins are found in significant amounts in green tea and these have been shown to bring down LDL

levels in the body while not effecting HDL levels. I suggest 2-3 cups per day. Let the tea steep for at least 5 minutes to increase the levels of the green tea catechins.

Plant Sterols:

Whole grains, legumes, nuts and fruits in vegetables are high in plant sterols (in that order) and have shown to decrease cholesterol. Eating these foods are good ways to increase dietary sterol intake and increase your fiber intake. Not only that they are full of beneficial nutrients, like vitamin E, and omega 3 fats.

Sytrinol:

This is a relatively new supplement that is made of citrus bioflavonoids and mixed tocotrienols. Bioflavonoids are derived from fruits, and they are potent anti-oxidants, and decrease serum cholesterol. Tocotrienols are vitamin E analogues. They happen to decrease the production of cholesterol in the liver. Sytrinol has been shown to decrease cholesterol by up to 20-30% in clinical studies. You would want to get about 300mg/day from a supplement.

Omega 3:

Omega three fatty acids have the benefit of decreasing cholesterol, and decreasing inflammation – I recommend 2000mg of omega 3 fatty acids from a reputable supplement company.

Red Rice Yeast?

One thing I would stay away from is red rice yeast. Red rice yeast has gained some notoriety for its ability to bring down cholesterol levels extremely well. Because of this and the fact that this is a natural product many people think this might be the first thing they would want to try. However, red rice yeast has the same active agent in it as the prescription drug Mevacor® (lovastatin). In essence you are taking a statin when you are taking red rice yeast. This means that the side effects that are associated with statin drugs are likely going to be associated with red rice yeast. The levels of this natural occurring statin in red rice yeast seem to be lower than that in the prescription medication leading some researchers to believe that it contains other elements that help lower cholesterol. So this *may* be an option for people for whom diet and exercise does not work but because of the statin component this should never be undertaken without first consulting your medical doctor as all the same restrictions and interactions for statins will apply for red rice yeast.

One final thought: If you wish to decrease your cholesterol without medication, but are currently on medication; you should discuss this with your Medical Doctor to let them know what your plans are and so that your progress can be monitored.