

Cholesterol Myth-Busting

1. CHOLESTEROL IS ACTUALLY VITAL FOR A HEALTHY BODY.

Cholesterol composes the cell membranes of EVERY CELL IN OUR BODY.

It also plays a critical role in hormone production and management of inflammation. Cholesterol levels that are too low in pregnant women are associated with preterm delivery and birth defects such as microcephaly. Low cholesterol levels are also associated with ischemic strokes, depression and suicide attempts, and violent and impulsive behavior, among other negative effects. High levels of cholesterol actually correlate with longevity as it mitigates with inflammation. Eating plenty of naturally-occurring cholesterol gives your body the preformed building blocks it needs to fight off inflammation easily. Eating a low-fat diet does little to reduce the cholesterol level, and will actually deprive an inflamed body of the nutrients it needs.

2. HDL ISN'T "GOOD CHOLESTEROL" AND LDL ISN'T "BAD CHOLESTEROL". THERE'S MORE TO THE STORY.

HDL cholesterol is considered the "good" cholesterol because it helps the body get rid of excess cholesterol that's in the bloodstream- takes it to the liver to be processed and removed. You want this number to be high- that's a good thing. LDL cholesterol is considered the "bad" cholesterol- but it gets a bad rap. LDL cholesterol actually defends our body against inflammation caused by physical and psychological stress like work or family stress, infection, high blood sugar, and more. **So a high level of LDL indicates inflammation in the body, which won't be fixed by just eating less cholesterol because...**

3. THE CHOLESTEROL YOU EAT DOES NOT EQUAL THE CHOLESTEROL IN YOUR ARTERIES.

About 80% of cholesterol in your body is actually manufactured by your body (in the liver, intestines, adrenal glands, and reproductive organs) and the body ramps up its production of cholesterol in response to inflammation. **Cholesterol production is specifically stimulated by high levels of leptin and insulin. So reducing simple carbohydrates and sugar to reduce insulin, and incorporating intermittent fasting to regulate leptin, are two of the most important things you can do to reduce cholesterol.** If you are looking at your lab tests, it is most important to pay attention to your levels of leptin, insulin, triglycerides, and inflammation markers such as C-reactive protein and homocysteine (which all show the root cause of the high cholesterol) rather than your total cholesterol, HDL and LDL levels.

4. BLAMING CHOLESTEROL FOR HEART ATTACKS IS LIKE BLAMING THE FIREFIGHTERS FOR THE FIRE.

If we look at the numbers, **50% of heart attacks leading to sudden death happen in patients with NORMAL cholesterol.** Cholesterol levels are not the whole picture. Other risk factors to take into account include high hsCRP (C-reactive protein) and homocysteine levels, smoking, and high hemoglobin A1C (HbA1C). Why does plaque form in the arteries? Because of inflammation. Too much cholesterol production inflames the whole system, which leads to deposition of LDL in the artery. There's a vicious cycle of inflammation that is self-perpetuating. High blood sugar leads to an increase in oxidation of the plaque, which makes the plaque more and more unstable. As the plaque further destabilizes, it begins to look more and more like a foreign attack on the immune system. An autoimmune-like process occurs, which causes the body to attack the plaque. This attack specifically can lead to it rupturing and causing a cardiovascular event like a heart attack or stroke. **Not-so-fun fact: Long-term use of PPI (proton pump inhibitors) like Prilosec or Zantac increases the risk of heart attack years later.**

5. STATINS AREN'T THE "CURE-ALL" FOR HIGH CHOLESTEROL.

Statins are touted as the miracle "cure" for high cholesterol and atherosclerosis, but you and your doctor really need to specifically weigh the pros and cons of statin use before jumping on the bandwagon. **The way statins work is by inhibiting your body's production of cholesterol (which mostly occurs as you sleep). However, this comes with a caveat. It also reduces your body's supply of a vital enzyme called Coenzyme Q10 (CoQ10 for short) which is important for muscle function. Guess what? Your heart is a muscle too!** With that said, long-term use of statins without simultaneous use of CoQ10 can damage muscles, leading to heart failure and serious side effects like rhabdomyolysis. Some researchers even have linked statins with dementia because of the inhibition of this enzyme (although there are also studies suggesting it decreases dementia risks). Statin side effects also include liver impairment (no bueno, when our livers are overburdened as it is!). Statins deplete other nutrients as well such as Vitamin D, calcium, tocopherols and tocotrienols, vitamin K2, vitamin A, heme A, selenium, carnitine, copper, zinc, and carnitine. They can also lower levels of hormones such as testosterone and progesterone.

