

## Cholesterol Basics

1. Cholesterol is a powerful antioxidant
2. Cholesterol is needed to make every sex and stress hormone in your body
3. Cholesterol has many great benefits for your skin
4. Cholesterol is not the cause of heart disease but is an innocent bystander of an underlying inflammatory condition.
5. Cholesterol is needed for proper digestion and functioning of every cell in the human body.
6. People who have cholesterol levels below 130 tend to show many signs of depression and fatigue.
7. Healthy average cholesterol numbers should be anywhere from 150 – 250.
8. LDL cholesterol is an oxidized form of cholesterol
9. HDL cholesterol carries excess fats back to the liver to be processed and excreted in your stool.

## What Causes Heart Disease?

1. Research has shown that 50% of people who have heart attacks or heart disease have normal or healthy total cholesterol levels.
2. Many people who suffer from plaque in their arteries have high levels of heavy metals in their body, especially lead. Research has shown that lead changes chemical processes in the vessel to cause increased plaque to form. The calcium and cholesterol in the plaque are innocent bystanders.
3. Some researchers theorize that inadequate levels of antioxidants allow fats to oxidize and create inflammation within the vessels. To prevent this people need to consume adequate amounts of coQ10, mixtures of vitamin E, vitamin A, D, and alpha lipoic acid.
4. Consuming large amounts of unsaturated fatty acids from vegetable oils and other “good fats” can cause increased oxidation or lipid peroxide formation in the blood vessels compared to consuming saturated fatty acids such as coconut milk. The take home lesson here is that saturated fats such as coconut milk, organic butter, and extra virgin olive oils are more stable in the body and healthier options to prevent heart disease.
5. Excessive sugar consumed or released into the blood from stress will convert to triglycerides and cause increased amounts of inflammation in the vessels, which can lead to heart disease.
6. Smoking, high blood pressure, obesity, bad genetics, and high stress lifestyles have all been shown to increase the risk of heart disease.

## How to Prevent Heart Disease

1. Consume 40 – 60 grams of fiber a day by eating vegetables, fruits, whole grains, and fiber supplements such as Konsyl. Try to get at least 10 grams of soluble fiber in your diet per day.
2. Consume all of your meats as free range, grass fed, and organic animals. You can find these meats at stores such as Whole Foods and or order online directly from the farms.

For more information please visit [www.houstonbackclinic.com](http://www.houstonbackclinic.com) and visit the resources and links page.

3. Take a good multivitamin that contains antioxidants such as vitamin C, A, D, E, and coQ10 among others. These will help decrease the amount of oxidation that occurs, which can lower your amounts of LDL cholesterol levels and inflammation. **Consult your doctor prior to starting a multivitamin/ mineral supplement.**
4. Exercise = this has been shown to decrease inflammation and improve the good types of cholesterol in the body.
5. Drink 4 ounces of red wine a couple of times per week. Research has shown this can help to raise HDL levels if yours are low. **Consult your doctor for potential complications.**
6. Take large doses of vitamin B3 in the form of Nicotinic acid, and B5 in the form of pantethine. These vitamins have been shown to lower LDL levels and raise HDL levels. **Consult doctor for dosages and potential complications** if you have gout or diabetes.
7. Take allicin, an active ingredient in garlic, as it has been shown to decrease LDL and raise HDL levels. **Consult doctor for dosages and potential complications.**
8. You can take red yeast rice as it works the same way as statin cholesterol lowering drugs. If you do this you want to consider taking additional amounts of the nutrient coQ10 to avoid any deficiencies created by the red yeast rice. This nutrient has been shown to lower total cholesterol levels. **Consult doctor for dosages and potential complications.**
9. Increase your amounts of Omega 3 fatty acids through fish or krill oils, walnuts, and organic flax seed. These have been shown to decrease very low density lipids or VLDL, an even more damaging type of cholesterol. **Consult doctor for dosages and potential complications.**
10. Consider taking Natto Kinase or Lumbrokinase as these enzymes can break down fibrin, which is how plaque in the vessels begins to form. These can be used under supervision of a qualified health care practitioner.
11. **Laugh and relax as much as possible.**
12. **Exercise 5 days a week for 30 minutes per day performing cardiovascular endurance and resistance training.**

#### **Proper Cholesterol Testing**

1. Spectracell laboratory - Lipoprotein Plus test or Berkely Heart labs are the two tests I recommend.
2. Measure the following items once a year: homocysteine, fibrin, high sensitivity C - reactive protein, uric acid, fasting blood glucose, hemoglobin A1C. These are all markers related to inflammation
3. Comprehensive nutrient, fatty acids, amino acids, heavy metals, and antioxidant profiles from Genova or Metametrix laboratories.

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