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*It is better to know nothing
Than to know what ain't so.
Josh Billings, 1874*

“The Case of the Equivocal Steroid” – An Essay on Cholesterol

People who have heart attacks frequently have a lot of cholesterol in their blood. Everybody does. But too much can clog up the system and lead to heart trouble. Then why do we have cholesterol? And what can we do about it?

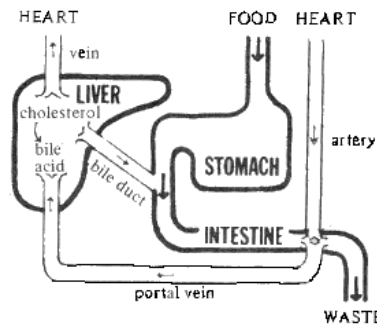
Cholesterol is the most common steroid found in the animal world, including people. It is a waxy stuff found mostly in brain and other parts of the nervous system and to a lesser degree in all parts of the body. Apparently the waxy nature of cholesterol makes it ideal for coating cells and such. All nerve fibers are protected by it – like the insulation around a copper wire. Hardly something you'd want to do without.

But where do we get the stuff? Do we eat it or what? Answer: We make it ourselves. We can turn just about any food into cholesterol. Protein, carbohydrate, fat . . . all can be made into cholesterol. And it's a good thing, too. Because we can only absorb limited amounts from our diets:

- Our diets contain limited amounts of cholesterol. No vegetables or vegetable products contain any cholesterol at all. And only organ meats and eggs contain fair amounts in relation to total body needs.
- Cholesterol itself is not well absorbed from the digestive tract. Like other oily/fatty materials, it requires help from the bile acids to dissolve in the “watery” blood.

But doesn't the amount of cholesterol we eat affect the amount in our blood? Hardly at all. It's other things in our diets that have the big effect on blood cholesterol.

1. The liver manufactures cholesterol and ships it to the heart by vein and thence to all parts of the body.
2. The liver also makes some of the cholesterol into bile acids. These have nothing to do with the brain but are needed to help dissolve fats.



3. The bile acids are shipped to the digestive tract by way of the bile duct. In the intestine they mix with the fats and help them into the blood stream (artery to portal vein).
4. The bile acids are shipped back to the liver carrying a load of fats (and some cholesterol). There, after unloading, they are sent to the digestive tract for another load.

Interestingly, not all of the bile acids make the round trip. Some “leak” out of the intestine with the rest of the digestive waste. And since bile acids are made from cholesterol, loss of bile acids equals loss of cholesterol. Of course this loss will boost the liver’s cholesterol production. But if enough bile acids can be “leaked” or flushed from the system, the liver won’t keep up and the total supply of cholesterol for the body will go down.

And the best way to flush the system is with plenty of water, exercise and fiber.

- Fiber goes right through the system. In addition to hurrying waste through the body, fiber may bind directly to the bile acids, dragging even more “cholesterol” out of the system.
- Exercise stirs up sluggish blood and carries trash to processing and disposal points (the liver and kidneys). Moderate exercise like walking is especially good because the rhythmic squeezing of the blood vessels in the legs helps the heart with its pumping job.
- Lots of water makes all of the cleaning processes of the body work better. If you don’t believe that, try washing a sink full of dirty dishes in a cup of water!

But what about all the reports that say it is bad to eat foods that contain cholesterol? Simple. They are wrong! For the most part they overlook the difference between cholesterol in the **diet** and cholesterol in the **blood**.

For example, many news reports and health writers have cited a massive government study released in January 1984 as a basis for recommending a diet low in cholesterol. In fact, the study showed that taking a fiber-like drug that reduces **blood** cholesterol results in fewer heart attacks. Out of nearly 4,000 men in the study for about 7 years, 30 who were taking the drug died of heart attacks while 38 who weren’t taking the drug did. If anything, this reinforces the importance of fiber in the diet. Again, what you eat affects your amount of **blood** cholesterol and chances for a heart attack. But the amount of cholesterol you eat is relatively unimportant.

So . . . enjoy your steak and eggs! But don’t forget your bran and vegetables . . . and a walk in the park . . . and plenty of fresh, pure water.