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**Craig Hospital** 

*Caring exclusively for patients with spinal cord and brain injuries.*

# Cholesterol

*So you've heard cholesterol is bad. Don't eat red meat. Eat more fish. Stay away from eggs. Don't eat fat. Exercise a lot. Maybe you've even heard that your spinal cord injury can make it worse. Is it hype, or is this a real problem that you need to deal with? Is your cholesterol level a good enough reason to change your lifestyle? Here's what you should know:*

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## What Is Cholesterol?

Your body does need a certain amount of fat to function properly. Cholesterol helps transport that fat to where it's needed, so your body needs cholesterol too. However, the body generally produces all the cholesterol it needs on its own. When there's too much cholesterol, a type of fat called LDL increases. It's LDL that clogs up your blood vessels, increasing the risk of stroke and heart disease.

Another kind of cholesterol, HDL, helps unclog your blood vessels, but, if you eat a lot of fat, it can be really hard for the HDL to keep up. This is where cholesterol becomes a problem.

In general, a lot of LDL is bad, while more HDL tends to be good. So, as a rule, you want to avoid higher LDL levels, the bad or lousy cholesterol, and strive for higher HDL levels, the good or healthy cholesterol. Lower LDL and higher HDL will help keep your blood vessels from clogging up.

If you're like many people and you find it hard to remember which is which, try this trick:

**HDL → Healthy cholesterol**

**LDL → Lousy cholesterol**

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## Who Has Cholesterol Problems?

People who are overweight, inactive, or smoke are more likely to have too much LDL and not enough HDL. Those who eat foods high in saturated fats, such as whole milk and some red meats – that's a lot of us – also pay the price with higher levels of the bad or lousy cholesterol.

As people age and after women go through menopause, cholesterol tends to become more of a problem. And, individuals who happen to have a personal or family history of heart disease or diabetes have to watch their cholesterol levels even more closely.

Finally, some people have very rare conditions that leave them with lousy cholesterol levels regardless of their personal habits or history.

## Does SCI Make Cholesterol Worse?

Although the research is sometimes fuzzy, most researchers agree that people with spinal cord injuries have to watch their cholesterol. They usually have lower levels of the good or healthy cholesterol (HDL), and higher levels of the bad or lousy cholesterol (LDL). This may be partly due to how the injury itself affects the body's metabolism, and partly due to the exercise factor.

Research has already taught us that lower activity levels are related to worse cholesterol. Even very active spinal cord injury survivors may not be able to be physically active enough to favorably affect cholesterol. Fortunately, the most cost effective remedy for cholesterol problems, a healthy diet, is largely not affected by your spinal cord injury. But more on that later...

## How Do I Get My Cholesterol Tested?

First of all, you have to talk to your doctor. The simplest and perhaps most common cholesterol test measures only your HDL level and total blood cholesterol, which is the combination of all the different types of cholesterol. For this test, you don't have to fast before your blood is drawn.

The other common cholesterol test, which must be done on an empty stomach, measures total cholesterol, HDL, LDL, and other types of cholesterol, too. Although the simpler test gives you a pretty good idea if you have a problem with cholesterol, this more complicated test gives a more complete and accurate picture.

Regardless, having your cholesterol tested is as simple as having your blood drawn – something you've probably had done hundreds of times since your injury. Generally the results are available as early as the next day. You can talk to your doctor to find out the results.

## What should my cholesterol level be?

Well, it depends. If you have several risk factors for heart disease, such as diabetes, smoking, or high blood pressure you should find out from your doctor what your own target levels should be. If you have one or no such risk factors, a total cholesterol level below 200 is usually desirable, while an HDL level greater than 40 is also good. Most important, your LDL level should be less than 130. However, since no one's numbers ever match up exactly with the textbook figures, it's good to have your doc help you with the figuring and interpreting your lab values.

## What can I do to get healthier cholesterol levels?

First of all, talk to your doctor. The most common recommendation you'll receive is to pay attention to your diet. Foods with lots of saturated fat, such as animal fat, whole milk, butter, cream, or ice cream can cause your LDL levels to rise and your HDL levels to drop. You may also be told to lose weight. Being overweight, particularly if you have a lot of fat in your abdomen, can cause LDL to rise and HDL to drop.

Here's a list of things you can do to improve your cholesterol levels:

- If you're overweight, lose weight
- Stop smoking
- Start exercising
- Lower the saturated fat in your diet by substituting unsaturated fat. If you need help to do this, contact a registered dietitian
- Increase amounts of soluble fiber in your diet with foods like oats, beans or fruits
- Reduce alcohol consumption
- Monitor your cholesterol levels. Talk to your doctor about how often you need your cholesterol level checked

If none of these things work well, your doctor may decide to put you on medication.

It seems like it should be simple, but, unfortunately, there are other things that are in cholesterol-free foods that still can raise your cholesterol level. For example, such supposedly low cholesterol foods as granola and margarine may actually raise your cholesterol level. This is because they contain large amounts of saturated fats or "trans" fatty acids. When your body tries to break down cholesterol, digested saturated fats get in the way. If your body can't break cholesterol down, it will continue to build up.

In addition to watching foods that are high in cholesterol, look for – and avoid – foods that are high in saturated fat. Saturated fats can also be listed in the ingredients list under other names like "partially hydrogenated," or look for the presence of animal fats including milk fat or meat fat. Some foods, like snack foods and ready-to-eat baked goods can be high in such fats. While a little of these foods are okay, eating a lot of them can raise your cholesterol levels. New laws prevent manufacturers from calling foods low fat unless they have less than 1 grams of saturated fat per serving – that's not much fat.

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