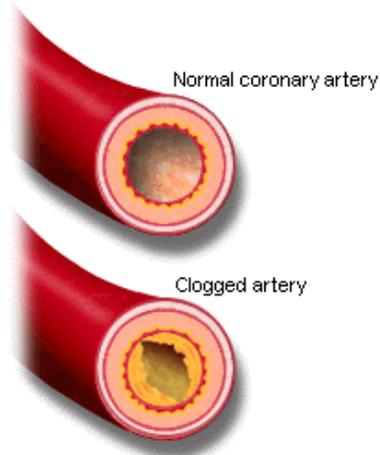


HIGH BLOOD CHOLESTEROL



WHAT IS CHOLESTEROL?

Cholesterol is a waxy, fat like material that is made in the body by the liver. It is needed by our bodies to produce healthy cells, Vitamin D and certain hormones. When we have too much cholesterol it builds up in our blood stream and will eventually clog up our blood vessels. When this happens, our blood flow is slowed down or even stopped. When

the heart and brain can't get the blood they need, we are at high risk for having a stroke or a heart attack. Cholesterol is carried through our bloodstream by a fat carrying protein called "lipoprotein". There are two kinds of lipoproteins:

- **LDL (bad) cholesterol** – the main source of cholesterol buildup which can cause hardening, thickening, narrowing and blockage in the arteries
- **HDL (good) cholesterol** – helps keep the cholesterol from building up in the arteries and therefore protects against heart disease and stroke; the higher the HDL number, the better.

WHAT ARE THE SYMPTOMS?

There are no symptoms for high blood cholesterol because the buildup in the blood vessels takes place slowly.

AM I AT RISK?

Your chances of developing high blood cholesterol depends upon several things:

- **Age and Sex:** As women and men get older, their cholesterol levels rise. Before the age of menopause, women have lower total cholesterol levels than men of the same age. After the age of menopause, women's LDL levels tend to rise.
- **Heredity:** High blood cholesterol can run in families. Your genes partly determine how much cholesterol your body makes.
- **Diet:** You are at greater risk if you eat a lot of foods that are high in saturated fats and cholesterol. This includes foods like dairy fats (such as those found in ice cream and butter), egg yolks, organ meats (such as liver), shellfish, fried foods and baked goods.
- **Weight:** You are at greater risk if you are overweight.
- **Physical Activity:** You are at greater risk if you are not physically active.
- **Medication:** Certain drugs for high blood pressure like diuretics (water pills), birth control pills, female hormones, steroids, and some acne drugs can cause the blood cholesterol level to be high.

HOW CAN I TELL IF I HAVE IT?

High blood cholesterol is diagnosed from blood studies. Your health care provider may have you refrain from eating or drinking anything for 9 to 12 hours before your blood is drawn. The provider may also complete a health history and physical examination and have other routine laboratory tests done. The following table shows you what the different cholesterol levels mean:

Blood Cholesterol Measurements	
Total Cholesterol	What It Means
Less than 200 mg/dL	Desirable blood cholesterol
200 to 239 mg/dL	Borderline-high cholesterol
240 mg/dL and higher	High blood cholesterol
HDL (Good) Cholesterol	
Less than 35 mg/dL	Low HDL - cholesterol
LDL (Bad) Cholesterol	
Less than 100 mg/dL	Optimal
100 to 129	Near Optimal / Above Optimal
130 to 159 mg/dL	Borderline High
160 mg/dL and above	High
Source: "Facts about Blood Cholesterol," US National Institutes of Health, National Heart, Lung, and Blood Institute, NIH Publication No. 96-2696.	

HOW IS HIGH BLOOD CHOLESTEROL TREATED?

There are several things that can be done to treat your high blood cholesterol, many of which you will have to do on your own:

- **Diet:** Limit saturated fats, like dairy fats and palm and coconut oil (found in baked goods). Limit high cholesterol foods like egg yolks, organ meats and shellfish. Eat more fruits and vegetables. Eat more broiled or grilled fish and skinless chicken breasts. Choose lean cuts when you eat beef, pork and lamb. Also eat smaller portions. Eat a variety of fiber-rich food, like oats, dark breads and apples. Choose low-fat or nonfat dairy products. Avoid fried foods and alcohol.



- **Physical Activity:** Being active and exercising will help lower the “bad” LDL and total cholesterol blood levels and raise the “good” HDL level. It will also help you lose weight.



- **Smoking:** Smoking lowers “good” HDL cholesterol and smokers are more likely to have cholesterol rich plaques rupture and have heart attacks. If you smoke, this is a good time to quit.
- **Medication:** If a change in your diet and increased activity does not lower your blood cholesterol enough, your health care provider will decide if you need to take a cholesterol lowering medication. If you are prescribed a medication, make sure you understand: what it does; when to take it; how to take it (with or without food); foods, beverages or medications to avoid while taking it; what to do if you miss a dose; and any side effects you may be having (headaches, fever, muscle aches or cramps, fatigue, etc.). Do not stop taking any medication without first discussing it with your health care provider.



REFERENCES / LINKS:

American Association of Family Physicians

<http://familydoctor.org/healthfacts/029/index.html>

American Heart Association

<http://www.americanheart.org/presenter.jhtml?identifier=3014862>

American Stroke Association

<http://www.strokeassociation.org/presenter.jhtml?identifier=4488>

National Center for Chronic Disease Prevention and Health Promotion

<http://www.cdc.gov/cvh/fs-cholesterol.htm>

National Institutes of Health / National Heart, Lung and Blood Institute

<http://www.nhlbi.nih.gov/chd/>

National Women's Health Information Center

<http://www.4woman.gov/faq/easyread/cholesterol-etr.htm>

Thomson Micromedex

http://www.praxis.md/index.asp?page=bhgarticle§ion=brief&article_id=BHG01CA02&go-bhg.x=24&go-bhg.y=7

VA National Center for Health Promotion and Disease Prevention

<http://www.nchpdp.med.va.gov/cholesterol.asp>

QUESTIONS TO ASK YOUR HEALTH CARE PROVIDER



- What is my blood cholesterol level?
- What should my blood cholesterol level be?
- How can I get my blood cholesterol level back to normal?
- How long will it take to get my level back to normal?
- How does exercise affect my cholesterol level?
- How does smoking affect my cholesterol level?
- What type of foods should I eat?
- May I speak to a dietician about my cultural food preferences?
- Do I need to lose weight?
- Will I need blood cholesterol-lowering medicine?
- What if I forget to take my medicine?
- When I take my blood cholesterol lowering medicine, should I avoid any foods or other medicines?
- Can I drink alcohol with my blood cholesterol lowering medicine?
- How often will my blood cholesterol level need to be checked?

There are two key people on your health care team, you and your health care provider. You are just as important as your provider in directing your health care. The first step you should take in becoming an active team member of your health care team is to understand what you are being treated for and why. Continue to ask questions until you understand the answer. By paying attention to your health and maintaining your own records, you will become an active, informed decision maker in your health care.

