

Fuel 4 Women



KSC/CCAFS HEALTH EDUCATION AND WELLNESS PROGRAM

Cholesterol February 2006

WHAT IS CHOLESTEROL?

Cholesterol is a soft, fat-like, waxy substance found in the bloodstream and in all your body's cells. It's normal to have cholesterol. It's an important part of a healthy body because it's used for producing cell membranes and some hormones, and serves other needed bodily functions. But too much cholesterol in the blood is a major risk for coronary heart disease, which leads to heart attack. It's also a risk factor for stroke. Hypercholesterolemia is the term for high levels of blood cholesterol.

You get cholesterol in two ways. Your body makes some of it, and the rest comes from cholesterol in animal products that you eat, such as meats, poultry, fish, eggs, butter, cheese and whole milk. Food from plants — like fruits, vegetables and cereals — doesn't have cholesterol. Some foods that don't contain animal products may contain trans fats, which cause your body to make more cholesterol. Foods with saturated fats also cause the body to make more cholesterol.

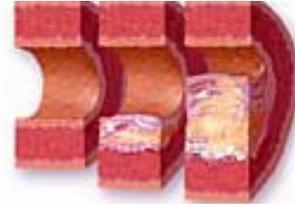
Cholesterol and other fats can't dissolve in the blood. They have to be transported to and from the cells by special carriers called lipoproteins. There are two kinds that you need to know about. Low-density lipoprotein, or LDL, is known as the "bad" cholesterol. Too much LDL cholesterol can clog your arteries, increasing your risk of heart attack and stroke. High-density lipoprotein, or HDL, is known as the "good" cholesterol. Your body makes HDL cholesterol for your protection. It carries cholesterol away from your arteries. Studies suggest that high levels of HDL cholesterol reduce your risk of heart attack.

Cholesterol can be both good and bad, so it's important to learn what cholesterol is, how it affects your health and how to manage your blood cholesterol levels. Understanding the facts about cholesterol will help you take better care of your heart and live a healthier life, reducing your risk for heart attack and stroke.

WHAT IS THE DIFFERENCE BETWEEN “LDL” AND “HDL” CHOLESTEROL?

Why is LDL cholesterol considered "bad"?

When too much LDL cholesterol circulates in the blood, it can slowly build up in the inner walls of the arteries that feed the heart and brain. Together with other substances it can form plaque, a thick, hard deposit that can clog those arteries. This condition is known as atherosclerosis. If a clot forms and blocks a narrowed artery, it can cause a heart attack or stroke. The levels of HDL cholesterol and LDL cholesterol in the blood are measured to evaluate the risk of having a heart attack. LDL cholesterol of less than 100 mg/dL is the optimal level. Less than 130 mg/dL is near optimal for most people. A high LDL level (more than 160 mg/dL or 130 mg/dL or above if you have two or more risk factors for cardiovascular disease) reflects an increased risk of heart disease. That's why LDL cholesterol is often called "bad" cholesterol.



Why is HDL cholesterol considered "good"?

About one-third to one-fourth of blood cholesterol is carried by high-density lipoprotein (HDL). HDL cholesterol is known as the "good" cholesterol because a high level of it seems to protect against heart attack. (Low HDL cholesterol levels [less than 40 mg/dL] increase the risk for heart disease.) Medical experts think that HDL tends to carry cholesterol away from the arteries and back to the liver, where it's passed from the body. Some experts believe that HDL removes excess cholesterol from plaque in arteries, thus slowing the buildup.

What is Lp(a) cholesterol?

Lp(a) is a genetic variation of plasma LDL. A high level of Lp(a) is an important risk factor for developing fatty deposits in arteries prematurely. The way an increased Lp(a) contributes to disease isn't understood. The lesions in artery walls contain substances that may interact with Lp(a), leading to the buildup of fatty deposits.

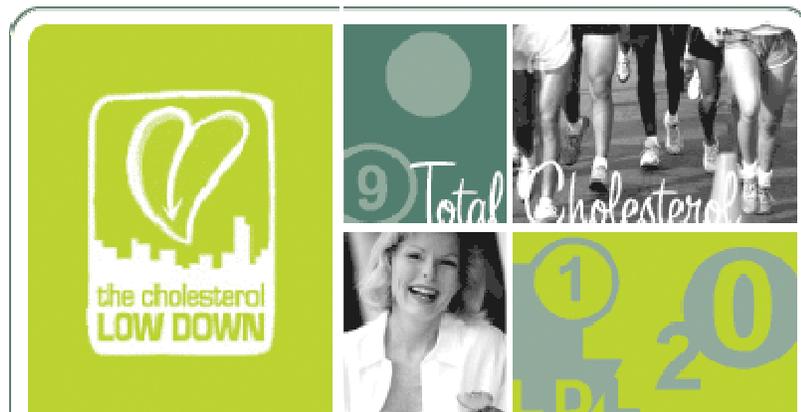
The triglyceride connection

Triglyceride is a form of fat. It comes from food and is also made in your body. People with high triglycerides often have a high total cholesterol, a high LDL cholesterol and a low HDL cholesterol level. Many people with heart disease also have high triglyceride levels. People with diabetes or who are obese are also likely to have high triglycerides. Triglyceride levels of less than 150 mg/dL are normal; levels from 150–199 are borderline high. Levels that are borderline high or high (200–499 mg/dL) may need treatment in some people. Triglyceride levels of 500 mg/dL or above are very high. Doctors need to treat high triglycerides in people who also have high LDL cholesterol levels.

KNOW YOUR NUMBERS

Knowing your numbers is an important part of keeping your heart healthy. These numbers can help you and your doctor determine your risks and mark the progress you're making toward a healthier heart.

Factor	Goal
Total Cholesterol	Less than 200 mg/dL
LDL ("Bad") Cholesterol	LDL cholesterol goals vary. <ul style="list-style-type: none"> • People who are at low risk for heart disease: <160mg/dL • People at intermediate risk for heart disease: <130 mg/dL • People at high risk for heart disease including those who have heart disease or diabetes: <100 mg/dL
HDL ("Good") Cholesterol	50 mg/dL or higher
Triglycerides	<150 mg/dL
Blood Pressure	<120/80 mmHg
Fasting Glucose	<100 mg/dL
Body Mass Index (BMI)	<25 Kg/m²
Waist Circumference	<35 inches
Exercise	Minimum of 30 minutes most days, if not all days of the week



CHOLESTEROL SCREENING AT THE OCCUPATIONAL HEALTH FACILITY & LAUNCH AREA CLINIC

Cardiovascular Disease (CVD) Screenings are offered to all spaceport employees, including both Kennedy Space Center and Cape Canaveral Air Force Station. The CVD Screenings are offered every month and is a free service.

2006 CARDIOVASCULAR DISEASE (CVD) SCREENING SCHEDULE

Date	Place	Time
Wednesday, January, 11 th	OHF	7-9 a.m. (2 hrs)
Wednesday, February, 15th	OHF	7-8 a.m.
Thursday, February 16th	LAC (MFF)	7-8 a.m.
Wednesday, March 15 th	OHF	7-9 a.m. (2 hrs)
Wednesday, April 12 th	OHF	7-8 a.m.
Thursday, April 13 th	LAC (MFF)	7-8 a.m.
Wednesday, May 17 th	OHF	7-9 a.m. (2 hrs)
Wednesday, June 14 th	OHF	7-8 a.m.
Thursday, June 15 th	LAC (MFF)	7-8 a.m.
Wednesday, July, 12 th	OHF	7-9 a.m. (2 hrs)
Wednesday, August, 16 th	OHF	7-8 a.m.
Thursday, August 17 th	LAC (MFF)	7-8 a.m.
Wednesday, September, 13 th	OHF	7-9 a.m. (2 hrs)
Wednesday, October, 11 th	OHF	7-8 a.m.
Thursday, October 12 th	LAC (MFF)	7-8 a.m.
Wednesday, November, 15 th	OHF	7-9 a.m. (2 hrs)
Wednesday, December, 6 th	OHF	7-8 a.m.
Thursday, December 7 th	LAC (MFF)	7-8 a.m.

OHF – Occupational Health Facility (M6-495, Industrial Area @ KSC)

LAC (MFF) – KSC Launch Area Clinic (Multi-Functional Facility @ KSC)

Forms can be found at each clinic and online at <http://hewp.ksc.nasa.gov>

QUICK FACTS

- Heart disease is the No. 1 killer of women.
- Cardiovascular disease claims more women's lives than the next six causes of death combined — about 500,000 women's lives a year.
- Nearly 40 percent of all female deaths in America occur from CVD, which includes coronary heart disease (CHD) and stroke.



GO RED FOR WOMEN

The American Heart Association's Go Red For Women is a nationwide movement celebrating the energy, passion and power we have as women to band together and wipe out heart disease.



Go Red For Women, which is sponsored by Macy's and Pfizer with additional support from the PacifiCare Foundation and Bayer Aspirin, began in February 2004 to raise awareness that heart disease is women's No. 1 killer. The grassroots campaign has since grown into a vibrant national movement as more women, men, celebrities, healthcare professionals and politicians embrace and elevate the cause of women and heart disease.

The campaign provides women with tips and information on healthy eating, exercise and risk factor reduction, such as smoking cessation, weight maintenance, blood pressure control and blood cholesterol management.

February 3rd is the official day to wear red this year to support the empowerment of women's defense against heart disease and to increase awareness among the nation.

Visit www.americanheart.org to get more information and to join the movement today!

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Fuel 4 Women

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- ◆ *Educating woman about their health*
- ◆ *Encouraging woman to act against disease*

[HTTP://HEWP.KSC.NASA.GOV](http://HEWP.KSC.NASA.GOV)

RESOURCES

American Heart Association
www.americanheart.org

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