

# *A Guide to Understanding Cholesterol...*



# Managing Cholesterol

- 
- Understanding Cholesterol • What Causes Cholesterol? • Recognizing The Symptoms •
  - Treatment & Risk Factors • Lowering Cholesterol With TLC • Frequently Asked Questions •
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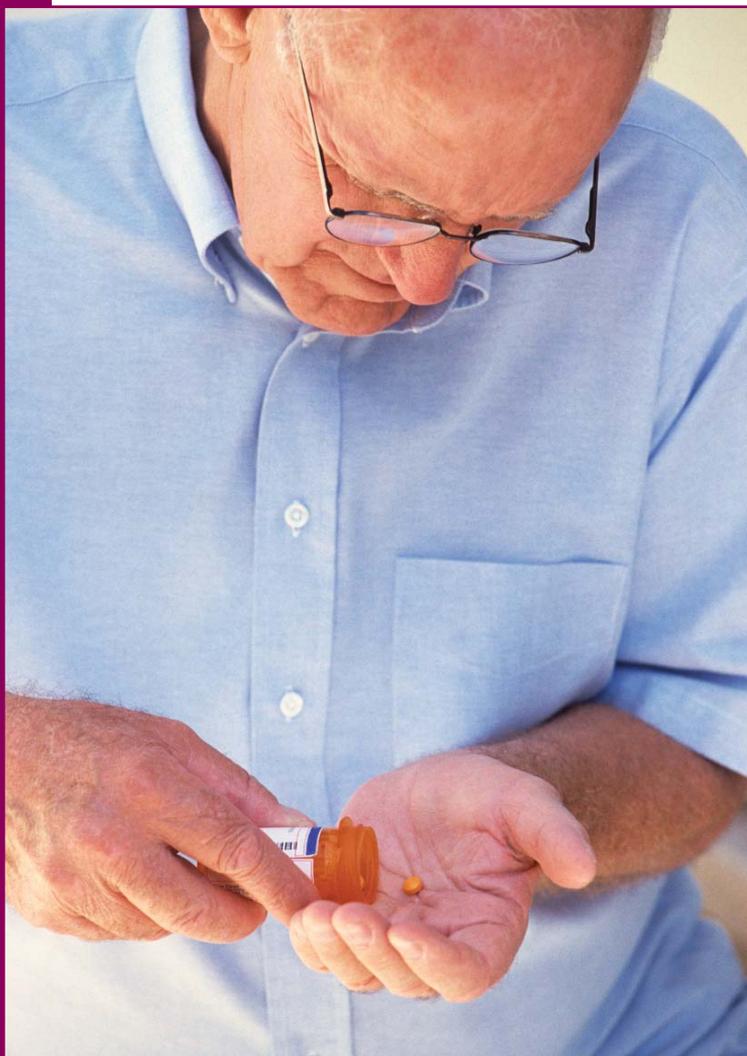
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# Understanding Cholesterol

## Getting Started

Too much cholesterol (ko-LES-ter-ol) in the blood, or high blood cholesterol, can be serious. People with high blood cholesterol have a greater chance of getting heart disease. High blood cholesterol itself does not cause symptoms, so many people are unaware that their cholesterol level is too high.



## What Is Cholesterol?

To understand high blood cholesterol, it is important to know more about cholesterol.

- ✓ Cholesterol is a waxy, fat-like substance that is found in all cells of the body. Your body needs some cholesterol to work the right way and makes all the cholesterol you need.
- ✓ Cholesterol is also found in some of the foods you eat.
- ✓ You use cholesterol to make hormones, Vitamin D, and substances that help you digest foods.

Blood is watery and cholesterol is fatty. Just like oil and water, the two do not mix. So, in order to travel in the bloodstream, cholesterol is carried in small packages called lipoproteins (lip-o-PRO-teens). The small packages are made of fat (lipid) on the inside and proteins on the outside. Two kinds of lipoproteins carry cholesterol throughout your body. It is important to have healthy levels of both:

- ✓ **LDL (low density lipoprotein)** cholesterol is sometimes called "bad" cholesterol.
  - High LDL cholesterol leads to a buildup of cholesterol in the arteries. The higher the LDL level in your blood, the greater chance you have for getting heart disease.



- ✓ **HDL (high density lipoprotein)** cholesterol is sometimes called "good" cholesterol.
  - HDL carries cholesterol from other parts of your body back to your liver. The liver removes the cholesterol from your body. The higher your HDL cholesterol level, the lower your chance of getting heart disease.

## What Is High Blood Cholesterol?

Too much cholesterol in your blood can build up in the walls of your arteries (blood vessels that carry blood from the heart to other parts of the body). This buildup of cholesterol is called plaque (PLACK). Over time, plaque can cause narrowing of the arteries. This is called atherosclerosis (ath-er-o-skler-O-sis) or "hardening of the arteries."

Special arteries, called coronary arteries, bring blood to the heart. Narrowing of your coronary arteries due to plaque can stop or slow down the flow of blood to

your heart. When the arteries narrow, the amount of oxygen-carrying blood is decreased. This is called coronary artery disease (CAD). Large plaque areas can lead to chest pain called angina. Angina happens when the heart does not receive enough blood and the oxygen it carries with it. Angina is a common sign of CAD.

Some plaques have a thin covering and burst (rupture), releasing fat and cholesterol into the bloodstream. The release of fat and cholesterol may cause your blood to clot. A clot can block the flow of blood. This blockage can cause angina or a heart attack.

Lowering your cholesterol level decreases your chance for having a plaque burst and the chance of a heart attack. Lowering cholesterol may also slow down, reduce, or even stop plaque from building up.

Plaque and resulting health problems can also occur in arteries elsewhere in the body.

### Other Names for High Blood Cholesterol

- ✓ Hypercholesterolemia
- ✓ Hyperlipidemia.

# What Causes Cholesterol?



## What Causes High Blood Cholesterol?

A variety of things can affect the cholesterol levels in your blood. Some of these things you can control and others you cannot.

You *can* control:

- ✓ **What you eat.** Certain foods have types of fat that raise your cholesterol level.
  - *Saturated fat* raises your LDL cholesterol level more than anything else in your diet.
  - *Trans fatty acids (trans fats)* are made when vegetable oil is "hydrogenated" to harden it. Trans fatty acids also raise cholesterol levels.
  - *Cholesterol* is found in foods that come from animal sources, for example, egg yolks, meat, and cheese.
- ✓ **Your weight.** Being overweight tends to increase your LDL level, lower your HDL level, and increase your total cholesterol level.
- ✓ **Your activity.** Lack of regular exercise can lead to weight gain and raise your LDL cholesterol level. Regular exercise can help you lose weight and lower your LDL level. It can also help you raise your HDL level.

Cholesterol is found in foods that come from animal sources, for example, egg yolks, meat, and cheese.

You *cannot* control:

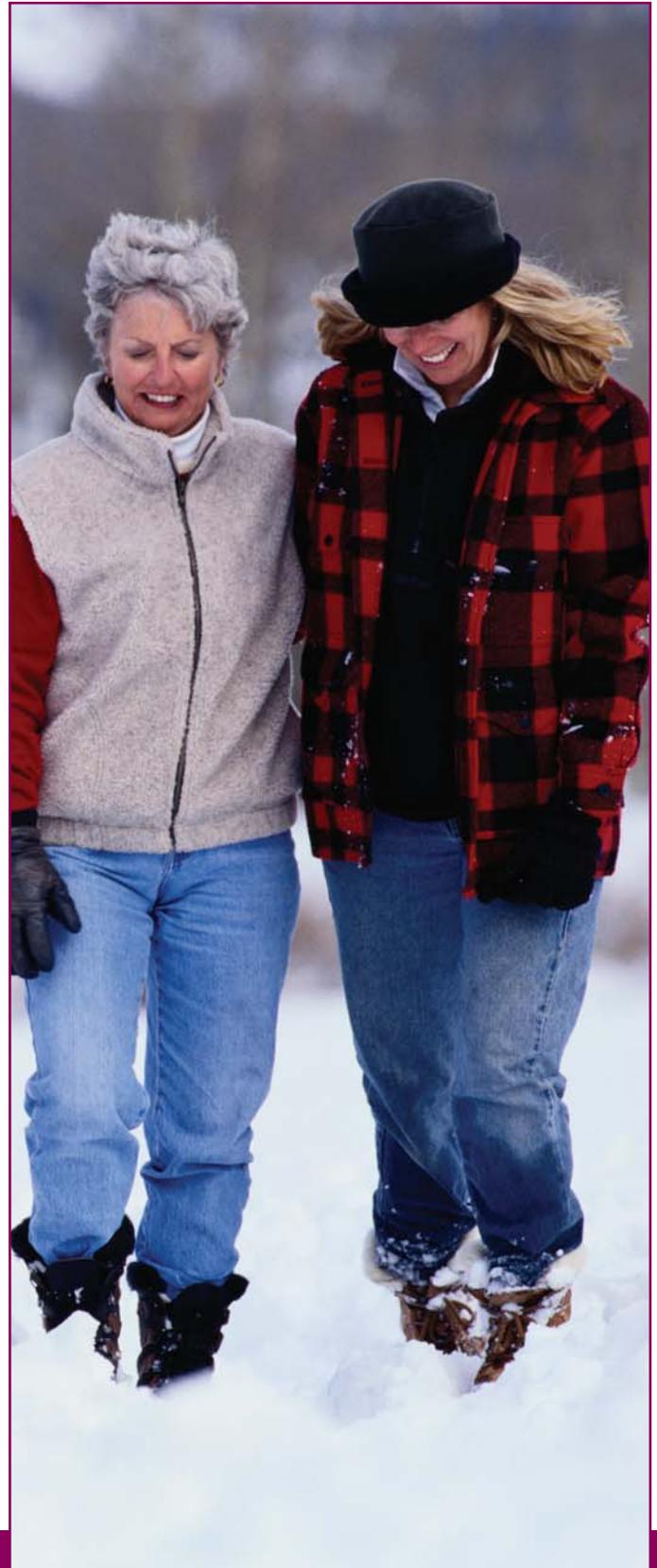
- ✓ **Heredity.** High blood cholesterol can run in families. An inherited genetic condition (familial hypercholesterolemia) results in very high LDL cholesterol levels. It begins at birth, and results in a heart attack at an early age.
- ✓ **Age and sex.** Starting at puberty, men have lower levels of HDL than women. As women and men get older, their LDL cholesterol levels rise. Younger women have lower LDL cholesterol levels than men, but after age 55 they have higher levels than men.

## Did You Know?

According to the Centers for Disease Control and Prevention (CDC), high cholesterol affects about 20% of adults over the age of 20 in the United States. The highest prevalence occurs in women between the ages of 65 and 74.

The World Health Organization (WHO) reports that high cholesterol contributes to 56% of cases of coronary heart disease worldwide and causes about 4.4 million deaths each year. In most parts of the world, the number of female deaths attributed to high cholesterol is slightly higher than the number of male deaths.

<http://cardiologychannel.com/hypercholesterolemia/>



# Recognizing The Symptoms

## What Are the Signs and Symptoms of High Blood Cholesterol?

There are usually no signs or symptoms of high blood cholesterol. Many people don't know that their cholesterol level is too high.

Everyone age 20 and older should have their cholesterol levels checked at least once every five years. You and your doctor can discuss how often you should be tested.

## How is High Blood Cholesterol Diagnosed?

High blood cholesterol is diagnosed by checking levels of cholesterol in your blood. It is best to have a blood test called a lipoprotein profile to measure your cholesterol levels. Most people will need to "fast" (not eat or drink anything) for 9 to 12 hours before taking the test.

The lipoprotein profile will give information about your:

- ✓ **Total cholesterol**
- ✓ **LDL (bad) cholesterol:** the main source of cholesterol buildup and blockage in the arteries
- ✓ **HDL (good) cholesterol:** the good cholesterol that helps keep cholesterol from building up in arteries
- ✓ **Triglycerides:** another form of fat in your blood.

If it is not possible to get a lipoprotein profile done, knowing your total cholesterol and HDL cholesterol can give you a general idea about your cholesterol levels. Testing for total and HDL cholesterol does not require fasting. If your total cholesterol is 200 mg/dL or more, or if your HDL is less than 40 mg/dL, you will need to have a lipoprotein profile done.

Cholesterol levels are measured in milligrams (mg) of cholesterol per deciliter (dL) of blood. See how your cholesterol numbers compare to the tables on the following page.

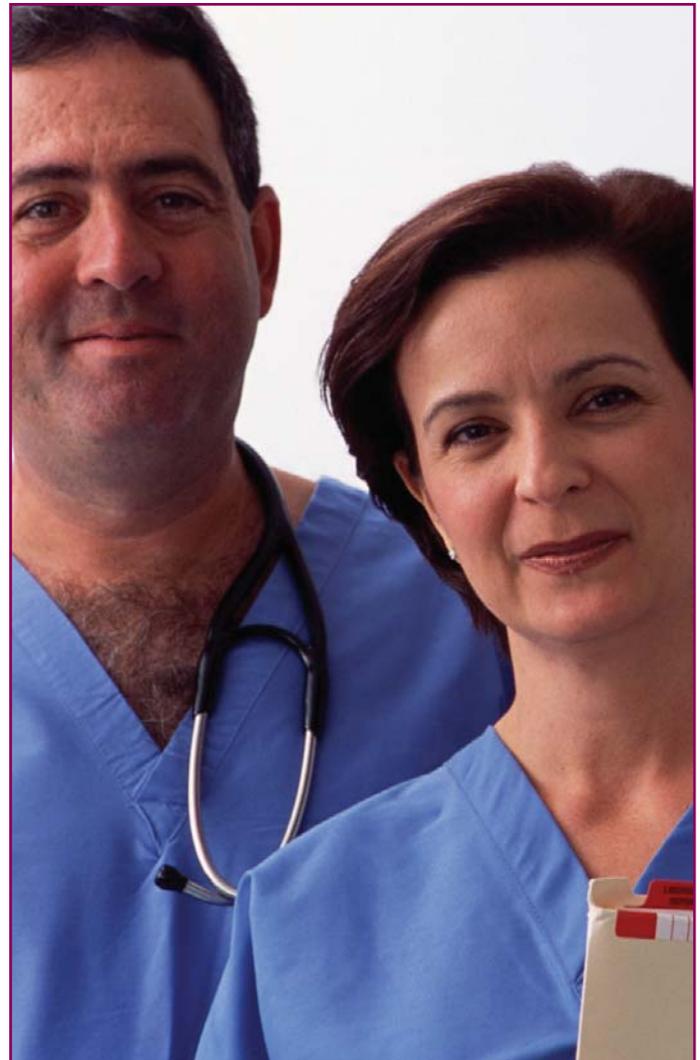


# Measuring Cholesterol

Total Cholesterol Level	Total Cholesterol Category
Less than 200 mg/dL	Desirable
200-239 mg/dL	Borderline high
240 mg/dL and above	High

LDL Cholesterol Level	LDL Cholesterol Category
Less than 100 mg/dL	Optimal
100-129 mg/dL	Near optimal/above optimal
130-159 mg/dL	Borderline high
160-189 mg/dL	High
190 mg/dL and above	Very high

HDL Cholesterol Level	HDL Cholesterol Category
Less than 40 mg/dL	A major risk factor for heart disease.
40 - 59 mg/dL	The higher, the better.
60 mg/dL and above	Considered protective against heart disease.



Triglycerides can also raise your risk for heart disease. Levels that are borderline high (150-199 mg/dL) or high (200 mg/dL or more) may need treatment. Things that can increase triglycerides include:

- Overweight
- Cigarette smoking
- Physical inactivity
- Certain diseases and drugs
- Physical inactivity
- Excessive alcohol use
- Very high carbohydrate diet
- Genetic disorders.

“The main goal of a cholesterol-lowering treatment is to lower your LDL level enough to reduce your risk of having a heart attack or other diseases caused by hardening of the arteries.”

# Treatment & Risk Factors



## How is High Blood Cholesterol Treated?

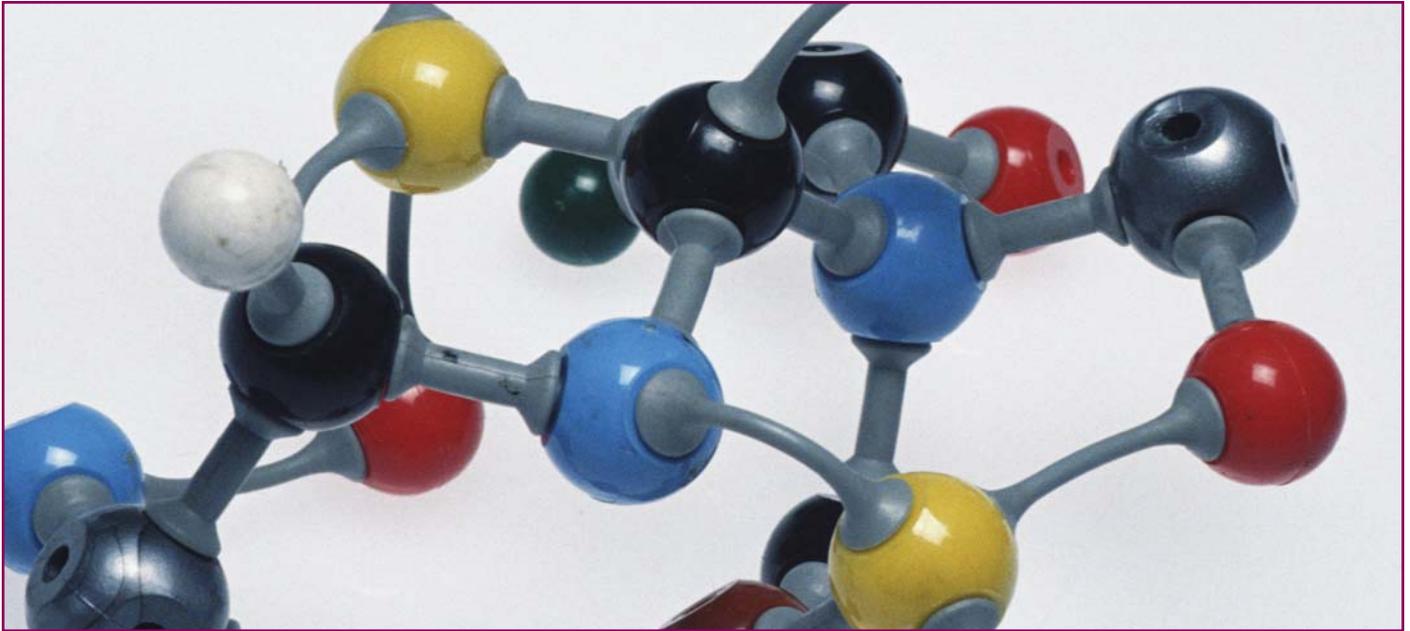
The main goal of a cholesterol-lowering treatment is to lower your LDL level enough to reduce your risk of having a heart attack or other diseases caused by hardening of the arteries. In general, the higher your LDL level and the more risk factors you have, the greater your chances of developing heart disease or having a heart attack. (A risk factor is a condition that increases your chance of getting a disease.) Some people are at high risk for heart attack because they already have heart disease. Other people are at high risk for developing heart disease because they have diabetes or a combination of risk factors for heart disease.

## High Cholesterol Risk Factors

Your blood cholesterol level is affected not only by what you eat but also by how quickly your body makes LDL ("bad") cholesterol and disposes of it. In fact, your body makes all the cholesterol it needs, and it is not necessary to take in any additional cholesterol from the foods you eat.

Many factors help determine whether your LDL-cholesterol level is high or low. The following factors are the most important:

- ✓ **Heredity.** Your genes influence how high your LDL ("bad") cholesterol is by affecting how fast LDL is made and removed from the blood. One specific



form of inherited high cholesterol that affects one in 500 people is familial hypercholesterolemia, which often leads to early heart disease. But even if you do not have a specific genetic form of high cholesterol, genes play a role in influencing your LDL-cholesterol level.

- ✓ **What you eat.** Two main nutrients in the foods you eat make your LDL ("bad") cholesterol level go up: saturated fat, a type of fat found mostly in foods that come from animals; and cholesterol, which comes only from animal products. Saturated fat raises your LDL-cholesterol level more than anything else in the diet. Eating too much saturated fat and cholesterol is the main reason for high levels of cholesterol and a high rate of heart attacks in the United States. Reducing the amount of saturated fat and cholesterol you eat is a very important step in reducing your blood cholesterol levels.
- ✓ **Weight.** Excess weight tends to increase your LDL ("bad") cholesterol level. If you are overweight and have a high LDL-cholesterol level, losing weight may help you lower it. Weight loss also helps to lower triglycerides and raise HDL ("good") cholesterol levels.
- ✓ **Physical activity/exercise.** Regular physical activity may lower LDL ("bad") cholesterol and raise HDL ("good") cholesterol levels.
- ✓ **Age and sex.** Before the age of menopause, women usually have total cholesterol levels that are lower than those of men the same age. As women and men get older, their blood cholesterol levels rise until about 60 to 65 years of age. After the age of about 50, women often have higher total cholesterol levels than men of the same age.
- ✓ **Alcohol.** Alcohol intake increases HDL ("good") cholesterol but does not lower LDL ("bad") cholesterol. Doctors don't know for certain whether alcohol also reduces the risk of heart disease. Drinking too much alcohol can damage the liver and heart muscle, lead to high blood pressure, and raise triglycerides. Because of the risks, alcoholic beverages should not be used as a way to prevent heart disease.
- ✓ **Stress.** Stress over the long term has been shown in several studies to raise blood cholesterol levels. One way that stress may do this is by affecting your habits. For example, when some people are under stress, they console themselves by eating fatty foods. The saturated fat and cholesterol in these foods contribute to higher levels of blood cholesterol.

# Managing Your Cholesterol



## Lowering Cholesterol with TLC

TLC is a set of lifestyle changes you can make to help lower your LDL cholesterol. The main parts of TLC are:

### ✓ The TLC Diet

*The TLC Diet recommends:*

- Limiting the amount of saturated fat and cholesterol you eat.
- Eating only enough calories to achieve or maintain a healthy weight.
- Increasing the soluble fiber in your diet. For example, oatmeal, kidney beans, and apples are good sources of soluble fiber.
- Adding cholesterol-lowering food such as margarines that contain plant sterol or stanol esters for some people.

### ✓ Weight Management

Losing weight if you are overweight can help lower LDL. Weight management is especially important for those with a group of risk factors that includes high triglyceride and/or low HDL levels and being overweight with a large waist measurement (more than 40 inches for men and more than 35 inches for women).

### ✓ Physical Activity

Regular physical activity is recommended for everyone. It can help raise HDL and lower LDL and is especially important for those with high triglyceride and/or low HDL levels who are overweight with a large waist measurement.

# Body Mass Index

Body Mass Index (BMI), is one of the best measures of our true weight status. Put simply, BMI is a common measure expressing the relationship of weight-to-height, and is an easy calculation using inches and pounds.

When calculated, your BMI will help you determine your true weight status as either underweight, normal, overweight, or obese. These BMI ranges are based on the effect of weight status on disease and death. Generally, as a person's BMI increases, so does their risk for a number of health conditions and diseases.

These include the risk of premature death, heart disease, high blood pressure, osteoarthritis, cancer, and diabetes.

Chart 2

Body Mass Index Table																																				
BMI	Normal						Overweight					Obese						Extreme Obesity																		
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Height (inches)	Body Weight (pounds)																																			
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. [http://www.nhlbi.nih.gov/guidelines/obesity/bmi\\_tbl.pdf](http://www.nhlbi.nih.gov/guidelines/obesity/bmi_tbl.pdf)

# Calculating Your BMI

The BMI Chart found below (*Chart 2*) makes determining your BMI easy. Simply find your height and weight and circle the number where the two lines intersect. This is your BMI. Once you have determined your BMI, you can use this number to determine weight status (using *Chart 1*—underweight, normal, overweight, or obese). BMI values for adults are interpreted using a fixed number, regardless of age or sex, using the following guidelines:

Chart 1

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 and above	Obese

# Managing Your Cholesterol

*Continued...*

## Start A Walking Program

Walking does wonders in helping to reduce the harmful effects of high blood pressure. But you have to leave time in your busy schedule to follow a walking program that will work for you. In planning your walking program:

- ✓ **Choose a safe place to walk.** Find a partner or group of people to walk with you. Your walking partner(s) should be able to walk with you on the same schedule and at the same speed.
- ✓ **Wear shoes with thick flexible soles** that will cushion your feet and absorb shock.
- ✓ **Wear clothes that will keep you dry** and comfortable. Look for synthetic fabrics that absorb sweat and remove it from your skin.
- ✓ **For extra warmth in winter, wear a knit cap.** To stay cool in summer, wear a baseball cap or visor.
- ✓ **Do light stretching** before and after you walk.
- ✓ **Think of your walk in three parts.** Walk slowly for 5 minutes. Increase your speed for the next 5 minutes. Finally, to cool down, walk slowly again for 5 minutes.
- ✓ **Try to walk at least three times per week.** Add 2 to 3 minutes per week to the fast walk. If you walk less than three times per week, increase the fast walk more slowly.
- ✓ **To avoid stiff or sore muscles or joints, start gradually.** Over several weeks, begin walking faster, going further, and walking for longer periods of time.

The more you walk, the better you will feel. You also will use more calories.

## Is It OK For Me To Walk?

Answer the following questions before you begin a walking program.

- Has your health care provider ever told you that you have heart trouble?  
Yes No
- When you are physically active, do you have pains in your chest or on your left side (neck, shoulder, or arm)?  
Yes No
- Do you often feel faint or have dizzy spells?  
Yes No
- Do you feel extremely breathless after you have been physically active?  
Yes No
- Has your health care provider told you that you have high blood pressure?  
Yes No
- Has your health care provider told you that you have bone or joint problems, like arthritis, that could get worse if you are physically active?  
Yes No
- Are you over 50 years old and not used to a lot of physical activity?  
Yes No
- Do you have a health problem or physical reason not mentioned here that might keep you from starting a walking program?  
Yes No

If you answered yes to any of these questions, please check with your health care provider before starting a walking program or other form of physical activity.

Source: <http://win.niddk.nih.gov/publications/walking.htm>

# Cholesterol-Lowering Medicines

Along with changing the way you eat and exercising regularly, your doctor may prescribe medicines to help lower your cholesterol. Even if you begin drug treatment, you will need to continue TLC. Drug treatment controls but does not "cure" high blood cholesterol. Therefore, you must continue taking your medicine to keep your cholesterol level in the recommended range.

There are five major types of cholesterol-lowering medicines:

- ✓ **Statins**
  - Very effective in lowering LDL ("bad") cholesterol levels
  - Safe for most people
  - Rare side effects to watch for are liver and muscle problems.
- ✓ **Bile Acid Sequestrants (seh-KWES-trants)**
  - Help lower LDL cholesterol levels
  - Sometimes prescribed with statins
  - Not usually prescribed as the only medicine to lower cholesterol
- ✓ **Nicotinic (Nick-o-tin-ick) Acid**
  - Lowers LDL cholesterol and triglycerides, and raises HDL ("good") cholesterol
  - Should only be used under a doctor's supervision.
- ✓ **Fibrates**
  - Lower triglycerides
  - May increase HDL (good) cholesterol levels
  - When used with a statin, may increase the chance of muscle problems
- ✓ **Ezetimibe**
  - Lowers LDL cholesterol
  - May be used with statins or alone
  - Acts within the intestine to block cholesterol absorption

When you are under treatment, you will be checked regularly to:

- ✓ Make sure your cholesterol level is in control
- ✓ Check for other health problems

You may take medicines for other health problems. It is important that you take ALL medicines as prescribed by your doctor. The combination of medications may lower your risk for heart disease or heart attack.

When trying to lower your cholesterol or keep it low, it is important to remember to follow your treatments for other conditions you may have such as high blood pressure. Get help with quitting smoking and losing weight if they are risk factors for you.



# Frequently Asked Questions



## **Q** Do I need to worry about lowering my blood cholesterol now that I'm over 65?

Yes. Older Americans have the Nation's highest rate of coronary heart disease (CHD) and can benefit greatly from lowering elevated cholesterol. Cholesterol lowering also has been shown to reduce the risk of strokes. For seniors who do not have heart disease, cholesterol lowering will reduce their high risk of developing CHD. Older Americans should have their total cholesterol and, if possible, their high density lipoprotein (HDL, the "good" cholesterol) tested once every 5 years. Older Americans should keep their cholesterol low by following an eating pattern lower in saturated fat, total fat, and cholesterol, being physically active, and maintaining a healthy weight.

## **Q** Should I be concerned about my child's blood cholesterol?

Yes. Everyone older than age 2 should care about cholesterol to reduce the risk of developing heart disease as an adult. Children as well as adults can improve the health of their hearts by following a low- saturated-fat and low-cholesterol diet, avoiding obesity, and being physically active. Only children from families in which the father or grandfather has had heart disease at the age of 55 or younger, or the mother or grandmother has had heart disease at the age of 65 or younger, or in which a parent has high blood cholesterol (240 mg/dL or higher), should have their cholesterol levels tested. If a child from such a "high-risk" family has a high cholesterol level, it should be lowered under medical supervision, primarily through dietary changes and increased physical activity.

**Q How useful is it to know my cholesterol ratio?**

Although the cholesterol ratio can be a useful predictor of heart disease risk, especially in the elderly, it is more important for treatment purposes to know the value for each level separately because both LDL- and HDL-cholesterol separately affect your risk of heart disease and the levels of both may need to be improved by treatment. The ratio is useful if it helps you and your doctor keep the entire picture of your LDL and HDL levels in mind, but it should not take the place of knowing your separate LDL and HDL levels.

**Q What is a heart-healthy diet?**

A heart-healthy diet emphasizes foods low in saturated fat, total fat, and cholesterol to help lower blood cholesterol. This is the recommended eating pattern for Americans older than 2:

- Less than 10 percent of calories from saturated fat;
- An average of 30 percent of calories or less from total fat; and
- Less than 300 mg a day of dietary cholesterol.

Saturated fat increases blood cholesterol more than anything else you eat, so choose foods low in saturated fat to reduce blood cholesterol. If you are overweight, losing weight is important for lowering blood cholesterol. Being physically active also helps improve blood cholesterol levels because it can raise HDL ("good") cholesterol and lower LDL ("bad") cholesterol, as well as help you lose weight, lower your blood pressure, and improve the fitness of your heart and blood vessels.

**Q My last cholesterol level was within my goal. Does that mean I do not have to worry about my cholesterol any more?**

High cholesterol and heart disease are not cured but are only controlled by diet and drug therapy. Stopping your treatment quickly returns your cholesterol to the level that existed before therapy was started.

**Q Is margarine better than butter in a cholesterol-lowering eating pattern?**

Yes. Butter is high in saturated fat, which raises blood cholesterol more than anything else you eat. Most margarines are made from vegetable oils that are hardened through a process called "hydrogenation." Hydrogenation forms a type of unsaturated fat called "trans" fat that appears to raise blood cholesterol more than other unsaturated fats but not as much as saturated fats. There are now margarines available that contain no "trans" fats. You can also read food labels and choose margarines that contain liquid vegetable oil as the first ingredient (rather than hydrogenated or partially hydrogenated oil) and the least amount of saturated fat.

**Q How does smoking affect my cholesterol?**

Smoking has several harmful effects on cholesterol. Smoking reduces HDL ("good") cholesterol and in all likelihood changes LDL ("bad") cholesterol to a form that promotes the buildup of deposits in the walls of the coronary arteries. In addition, smoking has harmful effects on the heart and blood vessels. In these ways, smoking substantially raises the risk for coronary heart disease if you are healthy and multiplies that risk many more times if you have other risk factors such as high blood cholesterol. All in all, smoking is the leading preventable cause of death.

**Q I'm young and healthy. Do I need to have my cholesterol checked?**

Yes. Young adults 20 years of age and older should have their cholesterol measured. Studies have shown that the buildup of plaque in the arteries that supply the heart begins in late adolescence and early adulthood, and a cholesterol level measured at age 22 predicts the risk of a heart attack over the following 30 to 40 years. Waiting until midlife to measure and lower cholesterol reduces the benefit that can be obtained. Checking your cholesterol and discussing it with your doctor can help you make lifestyle changes—eating right, being physically active, and controlling weight—to maintain good health now and prevent heart disease later in life.



## Managing Cholesterol

A Guide to Understanding Cholesterol

### *Important information on Cholesterol*

## Questions About Cholesterol Testing

No matter which testing system is used, you may want to ask:

- ✓ What is being measured—total cholesterol, HDL cholesterol, LDL cholesterol, or triglycerides?
- ✓ Do I need to fast before the test?
- ✓ How long will it take to get the test results?
- ✓ Will someone be available to explain the results and whether I need further testing?
- ✓ Will I receive educational materials with my test results?
- ✓ How reliable are the results? Is the lab certified?  
The accuracy and reliability of cholesterol tests vary from lab to lab. Labs participating in the U.S. Centers for Disease Control and Prevention (CDC) standardization testing should be used.

Source: [http://my.webmd.com/hw/health\\_guide\\_atoz/hw104758.asp?navbar=hw115434](http://my.webmd.com/hw/health_guide_atoz/hw104758.asp?navbar=hw115434)

### **Managing Cholesterol: A Guide To Understanding Cholesterol**

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