The Heart Truth®: Heart disease is the leading cause of death of women in the United States. It is also a leading cause of disability among women. If you’ve got a heart, heart disease could be your problem.

The good news: You have the power to protect your heart and lower your risk for heart disease. This fact sheet will help you find out your personal risk for heart disease. Then, it will show you how you can take steps to improve your heart health and lower your chances of developing heart disease.

WHAT IS HEART DISEASE?

Coronary heart disease (CHD) is the most common form of heart disease. Usually referred to simply as “heart disease,” it is a disorder of the blood vessels of the heart that can lead to a heart attack. A heart attack usually happens when an artery becomes blocked, preventing oxygen and nutrients from getting to the heart. If blood flow isn’t restored quickly, the section of heart muscle begins to die.

Another type of heart disease is coronary microvascular disease (MVD), which affects the tiny coronary (heart) arteries. In coronary MVD, the walls of the heart’s tiny arteries are damaged or diseased. Studies have shown that women are more likely than men to have coronary MVD. Many researchers think the disease is caused by a drop in estrogen levels during menopause combined with traditional heart disease risk factors.

It is important to know that heart disease is a lifelong condition—once you get it, you’ll always have it. What’s more, the condition of your blood vessels will steadily worsen unless you make changes in your daily habits. That’s why it is so vital to take action now to protect your heart.

DO YOU HAVE RISK FACTORS FOR HEART DISEASE?

Risk factors are conditions or habits that increase the chances of developing a disease or having it worsen. Having one or more risk wchance of developing heart disease because risk factors tend to worsen each other’s effects.
There are two types of heart disease risk factors—those you can’t change and those you can control. Two risk factors that cannot be changed are a family history of early heart disease and age (for women, age becomes a risk factor at 55). Also, preeclampsia, a condition that can occur during pregnancy, is linked to an increased lifetime risk for heart disease, including CHD, heart attack, heart failure, and high blood pressure.

Following a heart-healthy lifestyle can help you prevent or control many CHD risk factors. Why does your lifestyle matter? Because many heart disease risk factors can be controlled by making changes in your lifestyle and, in some cases, by taking medication. Major risk factors that you can do something about include (check all of your risk factors):

- **Smoking.** Smoking is the most powerful risk factor that women can control. Smoking tobacco or long-term exposure to second-hand smoke raises your risk for CHD, heart attack, and stroke, as well as lung cancer and other serious diseases. Smoking can damage and tighten blood vessels, lead to unhealthy cholesterol levels, and raise blood pressure. Smoking also can limit how much oxygen reaches the body’s tissues.

- **High blood pressure.** Normal blood pressure for adults is defined as a systolic pressure below 120 mmHg and a diastolic pressure below 80 mmHg. (The mmHg is millimeters of mercury—the units used to measure blood pressure.) Women who have blood pressure greater than 120/80 mmHg are at increased risk for CHD. Blood pressure is considered high if it stays at or above 140/90 mmHg over time. If you have diabetes or chronic kidney disease, high blood pressure is defined as 130/80 mmHg or higher. High blood pressure can lead to heart disease, stroke, congestive heart failure, and kidney disease.

- **High blood cholesterol.** High blood cholesterol is a condition in which you have too much cholesterol in your blood. By itself, the condition usually has no signs or symptoms—so many women don’t know that their diet and lifestyle choices matter. You have high blood cholesterol if your cholesterol levels are too high, which increases your risk for heart disease and stroke.

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**MENOPAUSAL HORMONE REPLACEMENT THERAPY NOT FOR HEART DISEASE PREVENTION**

**What is menopausal hormone replacement therapy?**

Menopausal hormone therapy can involve the use of estrogen plus progestin for a woman who has her uterus or estrogen alone for a woman who has had a hysterectomy.

**What we know about menopausal hormone replacement therapy and heart disease?**

In two hormone therapy trials, the Women’s Health Initiative studied 27,348 women to learn how menopausal hormone replacement therapy affected whether these women developed heart disease, fractures, and breast or colorectal cancer. Each hormone therapy had risks and benefits that need to be considered. The estrogen plus progestin therapy increased the risk for heart disease, stroke, blood clots, breast cancer, and dementia. Although, estrogen alone had some benefits for younger women who had a prior hysterectomy, estrogen was found to increase the risk for stroke and blood clots in these and other women in the study.

**When should menopausal hormone replacement therapy not be used?**

From the Women’s Health Initiative, we now know that menopausal hormone replacement therapy, estrogen plus progestin or estrogen alone, should not be used in postmenopausal women to prevent heart disease. It also should not be used to lower blood cholesterol levels. Talk with your health care provider about other proven preventions.

**When is menopausal hormone replacement therapy okay to use?**

Menopausal hormone replacement therapy is still an option for some women to help relieve moderate to severe symptoms that occur early in menopause. If using this therapy, it is best to use the lowest possible dose for the shortest period of time. Talk to your health care provider about whether this treatment is right for you.
cholesterol levels are too high. A blood test called a lipoprotein panel is used to measure your cholesterol levels, shown in milligrams (mg) of cholesterol per deciliter (dL) of blood. Your risk for CHD increases if you have a total cholesterol level greater than 200 mg/dL, an LDL (“bad”) cholesterol level greater than 100 mg/dL, and/or an HDL (“good”) cholesterol level less than 50 mg/dL.

A triglyceride level greater than 150 mg/dL also increases your risk for CHD. A woman’s HDL cholesterol and triglyceride levels predict her risk for CHD better than her total cholesterol or LDL cholesterol levels.

- **Overweight/obesity.** Being overweight or obese can raise your risk for CHD and heart attack. This is mainly because overweight and obesity are linked to other CHD risk factors, such as high blood cholesterol and triglyceride levels, high blood pressure, and diabetes.

- **Physical inactivity.** Being physically active can reduce your risk for CHD and stroke by 20–35 percent. A lack of physical activity can worsen other CHD risk factors, such as high blood cholesterol and triglyceride levels, high blood pressure, diabetes and prediabetes, and overweight and obesity.

- **Unhealthy eating patterns.** An unhealthy eating pattern can raise your risk for CHD. For example, foods that are high in saturated and trans fats can raise your LDL cholesterol level. A high-sodium eating pattern can raise your risk for high blood pressure. Foods with added sugars and fats will give you extra calories without nutrients, such as vitamins and minerals. Alcoholic beverages can be high in calories and therefore contribute to weight gain. Drinking alcohol can also increase blood pressure.

- **Diabetes and prediabetes.** Diabetes is a disease in which the body’s blood glucose (sugar) level is too high. This is because the body doesn’t make enough insulin (a hormone that helps body cells absorb glucose and turn it into energy) or doesn’t use its insulin properly. You are more likely to develop this disease if you are overweight (especially with extra weight around your middle), physically inactive, or have a family history of diabetes.

Prediabetes is a condition in which your blood sugar level is higher than normal, but not as high as it is in diabetes. Prediabetes puts you at higher risk for both diabetes and CHD. Diabetes and prediabetes raise the risk for CHD more in women than in men.

- **Metabolic syndrome.** Metabolic syndrome, also called insulin resistance syndrome, is a group of traits and medical conditions linked to overweight and obesity that puts people at risk for both CHD and type 2 diabetes.

- **Preeclampsia.** This condition, which develops during pregnancy, is linked to an increased lifetime risk for heart disease, including CHD, heart attack, and heart failure. If you had preeclampsia during pregnancy, you’re twice as likely to develop heart disease as women who haven’t had the condition. You’re also more likely to develop heart disease earlier in life. Preeclampsia is a heart disease risk factor that you can’t control. However, if you’ve had the condition, you should take extra care to try and control other heart disease risk factors.

Other conditions and factors also may contribute to CHD, including:

- Sleep apnea, a common disorder in which you have one or more pauses in breathing or shallow breaths while you sleep. Untreated sleep apnea can increase your risk for high blood pressure, diabetes, and even a heart attack or stroke.

- Stress, which can cause your arteries to narrow. This can raise your blood pressure and your risk for a heart attack. Research shows that the most commonly reported “trigger” for a heart attack is an emotionally upsetting event, especially one involving anger.

- Alcohol—heavy drinking can damage the heart muscle and worsen other CHD risk factors.
TAKE ACTION TO PROTECT YOUR HEART

Find Out Your Risk
To protect your heart health, it is important to find out your personal risk for heart disease. Be aware that every risk factor counts. If you have even one risk factor, you are much more likely to develop heart disease, with its many serious consequences. Having more than one risk factor is especially serious because risk factors tend to “gang up” and worsen each other’s effects. Fortunately, you have tremendous power to prevent heart disease, and you can start today.

The first step is to see your health care provider for a thorough checkup. Tell your health care provider you want help in achieving your goal of heart health. And don’t hesitate to ask questions, including those on the back page.

MAKE CHANGES FOR A MORE HEALTHY LIFE

- Set realistic, specific goals for a heart heart-healthy lifestyle.
- Act on your goals—take one step at a time.
- Figure out what’s stopping you from making or sticking to heart-healthy lifestyle changes. Keeping a record of your daily food intake and physical activity may help you identify barriers and inspire you to reach your goals.
- Don’t give up—get back on track when you slip up.
- Reward yourself for the gains you’ve made—with something you like to do, not with food.
- Make a plan to maintain your heart-healthy lifestyle changes. Involve friends and family!

Now you’re ready for action. In most cases, that means following a heart healthy eating plan, getting regular physical activity, maintaining a healthy weight, and not smoking. Some women also may need to take medication to control heart disease risk factors.

Sandy’s Story

Sandra recognized the signs of her heart attack even when emergency room staff initially did not. After a few short episodes of severe chest pain—what she thought was heartburn—Sandra realized her blood pressure was above normal at 180/110. She called 911, but no additional symptoms were identified in the emergency room. An alert physician admitted Sandra to the cardiac floor for observation, and the next day she suffered a heart attack. A former nurse, Sandra now volunteers her time to educate women across the country about their heart health.
Kick the Smoking Habit
There is nothing easy about giving up cigarettes, but with a plan of action, you can do it. Become aware of your personal smoking “triggers”—the situations that typically bring on the urge to light up—and replace them with new activities. Eat healthfully, get regular physical activity, and ask friends and family for support. You also may want to participate in an organized program to help people quit smoking, offered by many hospitals, health organizations, and workplaces. Also, several medications are now available to help people stop smoking. Ask your health care provider whether you should try any of these medications.

Eat for Health
You can greatly improve your heart health (and your family’s) by eating healthfully. Put together an eating plan for you and your family that offers the balance of calories that is right for you, including vegetables, fruits, whole grains, and low-fat dairy foods. The number of calories you need each day depends on your age and how physically active you are. Include a variety of protein foods such as seafood, lean meats, poultry, beans, eggs, nuts, and seeds. Limit saturated and trans fats, sodium, and added sugars. Grill, steam, bake, and sauté foods with heart healthy oils. When cooking food, replace butter, shortening and other fats that are high in saturated fat with foods with healthy fats such as fatty fish, avocado, nuts, seeds, and oils such as olive and canola.

Learn New Moves
Regular physical activity is a powerful way to keep your heart healthy. Aim for a total of 2 hours and 30 minutes of moderate-intensity aerobic activity each week—spending at least 10 minutes at a time. This level of activity can reduce your risk for heart disease and your chances of developing other risk factors, such as high blood pressure, diabetes, and being overweight. Other lifestyle benefits include providing energy, reducing stress, and building confidence. Make physical activity a family affair—choose fun activities that you do together often.

Aim for a Healthy Weight
If you are overweight or obese, taking off pounds can directly lower your chances of developing heart disease. Even a small weight loss will help lower your risk for heart disease and other medical conditions.

When it comes to weight loss, there are no quick fixes. Lasting weight loss requires a change of lifestyle, which includes adopting a healthy, lower-calorie eating plan and getting regular physical activity. Aim to lose no more than 1 to 2 pounds per week. If you have a lot of weight to lose, ask your health care provider or a registered dietitian to help you develop a sensible plan for gradual weight loss.

High Blood Pressure and the DASH Eating Plan
If you have high blood pressure or high normal blood pressure, you can help lower it by following the DASH eating plan. DASH, which stands for “Dietary Approaches to Stop Hypertension,” emphasizes vegetables, fruits, whole grains, and low-fat dairy foods. It is rich in potassium, calcium, and magnesium, as well as fiber and protein. It is low in saturated and trans fats and limits fatty red meat, sweets, and sugar-sweetened beverages. Sodium affects blood pressure. You should consume no more than 2,300 mg of sodium a day and reducing sodium intake to 1,500 mg per day may lead to additional blood pressure lowering. If you follow the DASH eating plan and cut down on sodium, you will get even greater blood pressure benefits.

High Blood Cholesterol and the TLC Program
If you need to lower your LDL cholesterol, following the DASH eating plan can help. If cholesterol-lowering medications are needed, it is still important to eat a healthy diet to help lower your LDL cholesterol level.
THE HEART TRUTH®

_The Heart Truth®_ (www.hearttruth.gov), sponsored by the National Heart, Lung, and Blood Institute (NHLBI), part of the National Institutes of Health, is a national education program for women that raises awareness about heart disease and its risk factors and educates and motivates them to take action to prevent the disease.

The centerpiece of _The Heart Truth_ is the _Red Dress®_, which was created by the NHLBI and introduced as the national symbol for women and heart disease awareness in 2002. The _Red Dress®_ is a powerful red alert that inspires women to learn more about their personal risk for heart disease and take action to protect their heart health.

QUESTIONS TO ASK YOUR HEALTH CARE PROVIDER

Getting answers to these questions will give you vital information about your heart health and what you can do to improve it. You may want to bring this list of questions and the list of heart disease risk factors you checked off in this fact sheet to your health care provider’s office.

1. What is my risk for heart disease?
2. What is my blood pressure? What does it mean for me, and what do I need to do about it?
3. What are my cholesterol numbers? (These include total cholesterol, LDL, HDL, and triglycerides.) What do they mean for me, and what do I need to do about them?
4. What are my “body mass index” (BMI) and waist circumference? Do they mean that I need to lose weight for my health?
5. What is my blood sugar level, and does it mean I’m at risk for diabetes? If so, what do I need to do about it?
6. What other screening tests for heart disease do I need?
7. What can you do to help me quit smoking?
8. How much physical activity do I need to help protect my heart?
9. What’s a heart healthy eating plan for me?
10. How can I tell if I may be having a heart attack? If I think I’m having one, what should I do?

NHLBI RESOURCES

NHLBI website: www.nhlbi.nih.gov

_The Heart Truth_ website: www.hearttruth.gov

Visit our Health Topics pages to learn more about the risks for heart disease:

Heart-healthy Lifestyle Changes: https://www.nhlbi.nih.gov/health/health-topics/topics/heart-healthy-lifestyle-changes

Heart Disease and Women: http://www.nhlbi.nih.gov/health/health-topics/topics/hdw

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