Learn About Your Cardiovascular Disease Risk Factors

Cardiovascular disease risk factors are traits that you are born with as well as lifestyle habits that increase your chances of having the disease. Cardiovascular disease affects the heart or blood vessels. People with heart or blood vessel disease can reduce their risk of having another event by improving their lifestyle habits.

Types of Risk Factors
There are 2 types of risk factors for cardiovascular disease:

- Those you cannot control
- Those you can control

There are 3 risk factors that you cannot control.

- Age – The body wears down and becomes damaged as it ages.
- Gender – Men are more likely to have heart and vascular disease at an earlier age than women. Women often have heart and vascular disease from hardening of the vessels later in life after menopause.
- Heredity – Your genetic code and a family history of heart disease can put you at more risk. Some people are more likely to have high cholesterol, high blood pressure and coronary plaque buildup.
There are risk factors that you can control.

- High blood pressure
- High cholesterol
- Smoking
- Being overweight
- Being inactive
- Stress and tension
- Diabetes

High Blood Pressure

- **Blood pressure** is the force put on blood vessel walls when your heart pumps and relaxes with each heartbeat. Blood pressure helps move blood through your body.

- **High blood pressure** is also called hypertension. High blood pressure is caused by the narrowing of arteries from plaque and cholesterol deposits that can cause blockage. Hardening of the artery walls also increases blood pressure.

- High blood pressure is often called a silent killer because most people do not have any signs such as pain. The only way to know if you have high blood pressure is to have it checked. People who are at more risk for high blood pressure are:
  - Older
  - Overweight
  - African American

- Blood pressure is often checked with a blood pressure cuff. The size of the cuff must be right to get a good reading. Using a small cuff on a large arm can give a false high reading. A large cuff on a normal or small arm can give a false low reading.

- When a blood pressure is checked, there will be two different numbers in the reading: one number over a second number.
  - The top number is higher and is called the **systolic** reading. It is the pressure in the blood vessels when the heart pumps.
The bottom number is lower and is called the **diastolic** reading. It is the pressure in the blood vessels when the heart rests between beats.

- **Normal blood pressure is 120 over 80 or less.** Blood pressure varies from person to person.
- **High blood pressure is 140 over 90 or higher.** A diagnosis of high blood pressure is not made until your blood pressure is checked several times and it stays high.
- The higher your blood pressure numbers, the harder it is for blood to flow through your blood vessels. With high blood pressure, your heart is working harder than normal. High blood pressure can lead to heart attack, stroke, kidney failure and hardening of the blood vessels.

### How to Lower Your Blood Pressure

- Check your blood pressure often. Call your doctor if your blood pressure stays high.
- See your doctor as scheduled.
- Take your blood pressure medicine as ordered by your doctor.
- Take your medicine even if you feel well or your blood pressure is normal.
- Lose weight if you are overweight.
- Limit salt in your food and drinks.
- Avoid alcohol.
- Stop smoking or tobacco use.
- Exercise most every day.
- Reduce stress.
- Practice relaxation daily.

### High Cholesterol

Cholesterol is a fatty substance that your body needs to work. It is made in the liver and found in food that comes from animals, such as meat, eggs, milk products, butter and lard.
Too much cholesterol in your blood can be harmful to your body and can increase your risk for heart disease. You are at risk for high blood cholesterol if:

- Your body makes too much cholesterol.
- You eat foods high in saturated fats and cholesterol.
- You have diabetes, a low thyroid level called hypothyroidism, or kidney disease.

There are 3 main types of fats in your blood.

- **High Density Lipoproteins (HDL):** This “good” cholesterol takes extra cholesterol in your blood back to your liver so your body can get rid of it.
- **Low Density Lipoproteins (LDL):** This “bad” cholesterol in your blood builds up in your blood vessels. This can cause your blood vessels to narrow, making it hard for blood to flow.
- **Triglycerides:** Eating too many carbohydrates can increase your triglyceride level.

Most people have no signs of high cholesterol. If you have a history of heart disease, have all of your cholesterol levels checked every six months to a year. Cholesterol is measured by a blood test. Fast for 12 hours before your blood is drawn. You can have water with your medicines but no food or drink such as coffee or tea.

Your results will tell you:

- **Your total cholesterol blood level** - A healthy level for people with heart disease is less than 200.
- **Your HDL blood cholesterol level** - This is the “good” cholesterol. The higher the number the better. A healthy level is 60 and above.
- **Your LDL blood cholesterol level** - This is the “bad” cholesterol, the lower the number the better. A healthy level is less than 70.
- **Your triglyceride blood level** - A healthy level is less than 150.
Liver function should also be tested if you are taking a cholesterol lowering medicine.

**How to lower your cholesterol levels:**

- See your doctor and have your cholesterol checked every six months to a year.
- Talk to your doctor, nurse or dietitian about a diet and exercise plan.
- Take your cholesterol lowering medicine as directed.
- Eat plenty of high fiber food, such as whole grains, beans, and fresh fruits and vegetables.
- Limit food that contains high amounts of cholesterol and saturated and polyunsaturated fats, such as beef, pork, cheese, whole milk or lard.
- Eat more low fat foods, such as skinless chicken breasts, fish or skim milk.
- Choose foods high in mono-saturated fats, such as olive or canola oils and nuts.
- Bake, broil, grill or roast foods rather than fry them.
- Lose weight if needed.
- Exercise at least 30 minutes a day, five days a week.
- Stop smoking and tobacco use.

**Smoking and Tobacco Use**

Smoking cigarettes, cigars or pipes and using other tobacco products can cause:

- Cancer of the lungs, mouth, throat or esophagus
- Heart and blood vessel disease
- Lung disease
- Stroke

Cigarettes are filled with poisons that go into your lungs when you breathe in. Each cigarette has 4000 chemicals and 43 cancer causing agents. Nicotine in tobacco is addictive and can raise your blood pressure.
Smokeless tobacco such as dip and chew contains more nicotine than cigarettes. Their use can cause white patches or red sores in the mouth that can develop into cancer. Smokeless tobacco users often have dental problems such as gums pulling away from the teeth, and tooth and root decay.

**Benefits of quitting smoking and tobacco use:**
- Your risk of heart disease and stroke is reduced.
- Your breathing and energy level will improve.
- Your cancer risks will be reduced.
- Your chances of living a longer, healthier life are better.
- If you are pregnant, you have a better chance of having a healthy baby.
- You will decrease the health risks of nonsmokers if you stop smoking.
- Your sense of smell and taste will improve.
- Your body, clothes, car and home will not smell of tobacco.
- You will save money.

**Follow these tips to get ready to quit:**
- Cut down the number of cigarettes you smoke each day.
  - Smoke only half a cigarette each time.
  - Smoke only during the even hours of the day.
- Clean out ashtrays and start putting them away one by one. Clean the drapes, the car, your office, or anything else that smells of tobacco smoke.
- Get a friend or spouse to quit with you.
- Start exercising before you quit.
- Switch to a brand of cigarettes you do not like as much.
- Throw away spare lighters.
- Become aware of why you smoke each cigarette. Avoid the things that cause you to smoke.
• Write down a list of the top 5 reasons you want to quit. Read this list daily.

Pick a date to quit and slowly reduce your smoking until your quit date. On your quit date, stop completely. If you smoke a lot at work, quit during a vacation.

**The day you quit:**

• Throw away your cigarettes, lighters and hide remaining ashtrays.
• Ask for help from family and friends.
• Make plans for the day and keep busy. Spend time in places where smoking is not allowed such as a library or the movies. Change your routine.
• Drink 8 glasses of water each day. This helps flush out the nicotine in your body.
• Keep celery, sugarless gum, hard candy, straws or toothpicks handy to help meet the urge of something in your mouth.
• Try deep breathing exercises and listen to relaxation tapes.
• Exercise.
• Eat regular meals.
• Start a money jar with the money you save by not buying cigarettes.
• Reward yourself at the end of the day for not smoking.

Over the next days and weeks you may be coping with withdrawal symptoms and cravings. Exercise and relaxation can help with withdrawal symptoms of anger, edginess or irritability. There will be times when you really want to smoke. Wait. The urge will pass in a few minutes. Take slow, deep breaths until you relax and forget about the urge to smoke. Drink water slowly and hold it in your mouth for a little while. Take your mind off smoking by thinking about something else or focus on the things you are doing. Get up and move around.

Mark your success each day on a calendar. Reward yourself each day and week.
**Setbacks**

It is hard to quit smoking. Most people try several times before they succeed. If you do smoke, do not give up on yourself. Remind yourself of how many hours, days or weeks you have already gotten through. Identify what caused you to smoke. Add it to your list of things to avoid or practice how you will deal with it next time. Remind yourself why you quit smoking. Practice what to do when you feel the urge to smoke. Reward yourself for your willpower and courage. Take one day at a time.

**Resources to quit smoking and tobacco use:**

- **Professional support:**
  - American Cancer Society, [www.cancer.org](http://www.cancer.org), 1-800-ACS-2345 or 1-877-937-7848
  - American Heart Association, [www.americanheart.org](http://www.americanheart.org)
  - American Lung Association, [www.lung.org](http://www.lung.org), 1-800-586-4872
  - Center for Disease Control, [www.cdc.gov/tobacco](http://www.cdc.gov/tobacco)
  - Nicotine Anonymous, [www.nicotine-anonymous.org](http://www.nicotine-anonymous.org)
  - Ohio Quits Line, 1-800-784-8669
  - Smoke Free Families, [www.smokefreefamilies.org](http://www.smokefreefamilies.org)

- **Nicotine Products:**
  - Patches
  - Gum
  - Nasal spray
  - Inhalers
  - Lozenges

- **Medicines:**
  - Zyban (bupropion)—this is a non-nicotine medicine that reduces cravings. This medicine in conjunction with a nicotine product listed above gives you a better chance of quitting.
  - Chantix (varenicline)—this is a newer medicine that lessens the withdrawal symptoms by acting on the nicotine receptor and giving one a feeling of satisfaction.
• Alternative treatments such as acupuncture and hypnotherapy:
  ▶ Use a reputable professional
  ▶ Ohio State’s Center for Integrative Medicine – (614) 293-9777

**Being Overweight**

Your body has to work harder when it carries extra weight. Use the body mass index (BMI) to see if your weight is in the normal range for your height.

To calculate your BMI:

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\frac{\text{Weight in pounds}}{(\text{Height in inches})^2} \times 705 = \text{BMI}
\]

- Normal = 18.5 – 24.9
- Overweight = 25.0 – 29.9
- Obese = > 30.0

**Benefits of losing weight:**

- Decrease your risk for heart disease and diabetes
- Decrease blood sugar levels for diabetics
- Decrease your blood pressure and resting heart rate
- Decrease your cholesterol levels
- Decrease episodes of depression
- Decrease back and joint pain
- Decrease shortness of breath and fatigue
- Improve stamina
**How to lose weight:**
- Talk to your doctor or dietitian.
- Reduce your food intake.
- Increase your daily activity.

**Being Inactive**
People who are inactive have a greater risk of heart disease than those who exercise regularly.

**Benefits of exercise:**
- Strengthens your heart
- Tones muscles and increases your range of motion
- Aids in weight loss
- Decreases cholesterol
- Lowers blood pressure and resting heart rate
- Helps with conditions such as fibromyalgia and osteoporosis
- Makes you feel good

**Suggestions for exercise:**
- Follow your exercise prescription guidelines given to you by cardiac rehab staff or other healthcare professionals.
- Slowly increase your activity.
- Make sure you warm up, cool down and stretch with each exercise session.
- Do aerobic exercise at least 30 minutes five days a week. You can:
  - Walk
  - Jog
  - Bike
  - Join a gym
  - Do an aerobics or water exercise class
  - Swim
• Do **anaerobic exercise**, also called resistance training, at least 2 to 3 times each week.
  ▶ Do light resistance with more repetitions to tone muscles
  ▶ Do high resistance with less repetitions to build muscles

Seek the advice of your doctor and exercise professionals that know your medical history before you begin any exercise program.

**Stress and Tension**
Stress is a normal part of life. People who feel time pressures and who are driven are more prone to cardiovascular disease. Those who are calm, unhurried and easy going are at less risk. Stress affects the body in different ways:
• The release of adrenalin makes the heart rate and blood pressure increase.
• The narrowing of blood vessels makes the heart work harder.

It is not the stressful situation, but your reaction to stress that is important.

**How to reduce your stress:**
• Identify events in your life that create stress and how you respond to it.
• Avoid situations that cause stress if possible.
• Learn stress management techniques.
• When you cannot avoid stress, choose to respond in a way that is not stressful for you.
• Exercise regularly.

**Diabetes**
Diabetes is a disease involving problems with the hormone insulin. Insulin helps your body store and uses the carbohydrates and sugars from the food you eat.
When you eat, food breaks down into a form of energy called glucose. Glucose is another word for sugar. The glucose goes into your blood and your blood sugar rises. Insulin is a hormone made by your pancreas. It helps glucose move from your blood into your cells so your body can use it for energy. People cannot live without insulin.

**There are three main types of diabetes:**

- In Type 1 diabetes, the pancreas makes no insulin.
- In Type 2 diabetes, the pancreas does not make enough insulin or your body is not able to use the insulin the pancreas makes.
- Gestational diabetes happens during pregnancy when the mother is not able to make enough insulin to cover the needs of both mother and baby.

The goal is to keep your glucose level as near to normal as possible. As a part of your care, you may need to:

- Plan meals
- Test glucose levels
- Learn signs to know when your glucose level is too low or too high
- Exercise regularly
- Take medicine - insulin or pills
- Keep all appointments with your health care team
- Attend diabetes classes

For more information, contact these organizations:

- American Diabetes Association (ADA), [www.diabetes.org](http://www.diabetes.org), 1-800-342-2383
- Central Ohio Diabetic Association (CODA), [www.diabetesohio.org](http://www.diabetesohio.org), 614-884-4400