Cardiovascular Disease Risk Factors

Risk factors are traits and life-style habits that increase a person's chances of having coronary artery and vascular disease. Some risk factors cannot be changed or controlled, while other risk factors are controllable. The most important risk factors are high blood pressure, high blood cholesterol and cigarette smoking. Other factors that may increase your risk for cardiovascular disease are diabetes, being overweight (obesity), being inactive and having an unhealthy reaction to stress.

Age, sex, and heredity are risk factors that cannot be controlled. There may be a genetic code that raises the likelihood of having heart and vascular disease. The older a person is, the more likely it is for the heart and blood vessels to be damaged. Men are more likely to have heart and vascular disease at an early age than women. Women do not usually have heart and vascular disease from atherosclerosis until after menopause. The more risk factors that one has, the greater the chance for disease.

As you read this information, check off those risk factors that you have. Fill out the worksheet at the end on how you will modify your risk factors. This is the first step to better cardiovascular health.

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Learn more about your health care.
High Blood Pressure (Hypertension)

- Blood pressure is the amount of force on the artery wall when your heart pumps and relaxes with each heart beat. It is easily measured with a blood pressure cuff.

- Normal blood pressure is less than 120 systolic (top number) and less than 80 diastolic (bottom number). Pre-high blood pressure is when the pressure is between 120 - 139 systolic or a diastolic pressure of 80 - 89. A blood pressure of 140/90 or higher for any length of time is considered high blood pressure.

- Narrowed blood vessels increase the pressure causing the heart to work harder.

- There are no early symptoms of high blood pressure. For this reason it is often called the silent killer. Blood pressure naturally rises with age. African Americans are more likely to have high blood pressure than Caucasians. Overweight people are more likely to have high blood pressure than thin people.

To Control High Blood Pressure:

- Have your blood pressure checked at each visit with the doctor and at least once a year.

- Follow your treatment plan:
  - Take prescribed medicines.
  - Lose weight.
  - Reduce sodium in your diet.
  - Stop smoking.
  - Get regular exercise.
  - Limit the amount of alcohol you drink.

High Blood Cholesterol

- Cholesterol is a fatty wax-like substance found in the blood. Some cholesterol is needed for good health. Our bodies make all the cholesterol we need. We also get cholesterol from eating animal products such as fatty meats, butter, cheese, eggs and whole milk.
Cholesterol is carried in the blood in packages of fat and protein called lipoproteins. Two of these lipoproteins affect atherosclerosis. High-density lipoproteins (HDL) are good because they carry extra fat away from the arteries. Low-density lipoproteins (LDL) are bad because they cause fat to build up on the artery wall.

Most people with high total cholesterol have too much LDL. Normal total cholesterol for adults is below 200. The risk of heart attack increases two times with a level of 240 and risk increases four times at 300.

A high LDL or a low HDL cholesterol level puts you at an increased risk of heart disease.

**To Control High Blood Cholesterol Levels:**

- Have your cholesterol checked once a year.
- Lower your total fat intake to less than 30% of total calories.
- Reduce saturated fat in your diet to less than 10% of total calories.
- Keep your cholesterol intake to less than 300 mg a day.
- Control your weight.

**Smoking**

People who smoke have twice the risk of early death from heart attack. Nicotine narrows the blood vessels causing an increase in blood pressure and heart rate. Carbon monoxide competes with oxygen in the red blood cells so there is less oxygen carried to the heart. Smoking increases the risk of heart disease by damaging the artery wall and by allowing more cholesterol to deposit on the wall. Smoking reduces the blood HDL level. The blood also becomes thicker and forms clots more easily.
Suggestions on How to Stop Smoking:

- Become aware of your habit.
- Stop smoking one day at a time.
- Plan other activities to replace smoking (walking, chew gum).
- Ask a friend to quit with you.
- Determine what cause or triggers make you smoke.

If you would like more information on stopping smoking, call:

- Ohio Tobacco Quit Line at 1-800-784-8669
- Quit Smoking Today, services in Franklin County, at (614) 462-3718

Diabetes

Diabetes results in high blood sugar levels (glucose). Diabetes occurs when the pancreas does not produce enough insulin or the body cannot use insulin properly. With diabetes there is an abnormal amount of lipoprotein which speeds up atherosclerosis and raises the risk of heart attack. Having high blood pressure and being overweight are more common in people with diabetes.

To Control Diabetes:

- Check your glucose levels at home and try to keep them as close to normal as possible.
- Follow diet as prescribed.
- Take medicines as prescribed.
- Control your weight.
- Exercise regularly.
Obesity (Overweight)

People 10 to 20% above their normal weight have an increased risk for heart disease. Obesity increases blood cholesterol, triglyceride levels, blood pressure and the risk for diabetes. It also decreases HDL cholesterol levels. Extra weight makes your heart work harder to supply the body with the needed oxygen.

To Control Obesity:

- Reduce your total calories.
- Start an exercise program.
- Work closely with your dietitian or doctor to reduce calories and begin to exercise.

Sedentary Life-Style

Inactive people run a greater risk of having coronary artery disease than people who exercise regularly. Benefits of exercise include:

- Strengthens the heart muscle
- Tones muscles
- Aids in weight reduction
- Makes you feel good
- Lowers your total blood cholesterol
- Lowers your blood pressure and resting pulse rate

Suggestions for Exercise:

- Follow the exercise plan given to you by your doctor and cardiac rehabilitation team.
- Gradually increase your activity.
- Exercise when you are rested.
- Select an enjoyable aerobic exercise and do it at least 3 times a week for 30 minutes.
Stress and Tension

Stress is a normal part of our lives. Stress causes the release of adrenalin which speeds up your heart rate, narrows your blood vessels and increases your blood pressure. Therefore, stress makes you heart work harder. It is not the stressful situation, but your reaction to stress that is important.

People who feel time pressures and who are hard-driving are more prone to coronary artery disease. Those who are calm, unhurried and easy-going are at less risk.

Suggestions to Reduce Stress:
- Identify events in your life that create stress and how you respond to it.
- Avoid situations that cause increased stress.
- Learn stress management techniques.
- When you cannot avoid stressful situations, choose to respond in a way that is not stressful for you.
- Exercise regularly.

Heredity

Some people inherit a tendency toward heart disease. Heredity becomes a risk factor for you if you have blood relatives who have coronary artery disease (heart attack) before the age of 50. You cannot control heredity, but you can help family members prevent a heart attack by reducing risk factors.

Suggestions for People with a Family History of Heart Disease:
- Teach family members about risk factors.
- Identify and reduce the risk factors you can control.

Controlling your risk factors will slow the process of atherosclerosis and therefore help prevent future problems.
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<th>Actions I Will Take to Modify My Risk Factors</th>
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Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.