

# Cardiovascular H E A E A E T H

eing in good cardiovascular health means having a healthy heart and healthy blood vessels. No one can afford to ignore the cardiovascular system. Heart disease is the leading cause of death among adults in the United States.

People with diabetes have extra reason to be mindful of heart and blood vessel disease. Diabetes carries an increased risk for heart attack, stroke, and complications related to poor circulation.

Your
Heart
in
It?

You can't change the fact that you have diabetes. But there are factors you can control. By taking charge of your health, you can work to prevent heart disease. Cutting down on your risk factors can help reduce your risk for cardiovascular disease (CVD).

Risk Factors You Can Change

ome people with diabetes are at greater risk than others. If you have diabetes and

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- high blood pressure
- high blood fat levels
- smoke cigarettes
- •have a family history of premature heart disease
  - are obese
- •are not physically active you face a greater chance of heart disease. The more risk factors you add, the greater your risk.

Either type 1 or type 2 diabetes increases your risk of CVD. People with type 1 diabetes are unlikely to get heart disease when they are young. Yet as they grow older, their risk becomes higher than the risk of their peers without diabetes.

Men with diabetes have a greater risk of CVD than women. After menopause, the risk increases for women with diabetes. Estrogen replacement therapy can help reduce a woman's risk. It is an option to discuss with your doctor.

## What You Can Do

f you have any of the risk factors listed above, work to change them. If you smoke, quit. If you're obese, lose some weight. Do your best to follow a heart-healthy lifestyle. You and your whole family will benefit. Work with your healthcare team on the following:

 Keep your blood glucose levels as near to normal as possible. High levels of blood glucose may damage large blood vessels over time. Keeping your blood glucose levels in the normal range may prevent or delay blood vessel damage.

- Quit smoking. Smoking narrows blood vessels over time. It can also increase the levels of fats in your blood. Just by stopping smoking, you can lower your risk for heart disease, stroke, and blood vessel disease. Quitting can be very hard. Get the support of your health-care team, a stop-smoking program, and your family.
- Keep your blood pressure under control. High blood pressure can be an early warning sign of blood vessel damage. The only way to know if you have high blood pressure is to have your doctor check. You may be able to lower your blood pressure by losing weight and cutting salt from your diet. If your blood pressure stays high, your doctor can prescribe medication that will help. Some blood pressure medications can affect blood glucose control. You and your doctor will need to work together to find the right medication for you.
- Keep your blood fat levels in the good range. High levels of blood fats can damage your blood vessels. The most infamous blood fat-cholesterolhas gotten a lot of notice. If your cholesterol level is too high, you and your health-care

team may try to bring it down by changing your eating and exercise habits. The simplest rule of thumb is to eat less saturated fat (those that are solid at room temperature). If you can't lower your blood fat level by diet alone, your doctor may prescribe medication to help.

- See your doctor regularly. Your doctor will keep tabs on your blood pressure, blood fat levels, and overall blood glucose control. Your blood pressure and blood fat levels can change. The only way to know what's going on is to have your doctor check. With a glycated hemoglobin blood test, your doctor can get a picture of your average blood glucose control over the past 2 or 3 months. If any problems show up, you and your doctor can act right away to improve things.
- Eat a heart-healthy diet. The foods you eat affect your blood glucose levels and those all-important blood fat levels. Your diet and exercise routine also help keep your weight in a good range for you. Healthier eating will steer your family into the best eating habits for life.
- Discuss your exercise program with your doctor. Regular aerobic exercise (such as walking or swimming), which uses your heart, lungs, and large muscles, can improve your blood fat levels and your over-



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all cardiovascular fitness.

 Research shows that taking aspirin may help prevent heart attacks in people with diabetes. Taking aspirin should be considered for people who have had a heart attack as well as for those who have not had a heart attack. Do not start taking aspirin without your doctor's OK. People with aspirin allergy, bleeding tendency, clinically active hepatic disease, or on certain medicines should not take aspirin. Use of aspirin has not been studied in people with diabetes less than 30 years of age.

# Finding Heart Disease

eart disease, like most medical problems, is easiest to treat when caught early. That's another reason regular doctor visits are so important. By checking your blood pressure, doing blood tests that reveal your blood fat levels and average blood glucose levels, and listening for problems through a stethoscope, your doctor gets clues to early signs of trouble.

If your doctor suspects a problem, he or she will probably send you to a cardiologist (a doctor trained in heart disease and treatment) for more tests. One of the first tests the cardiologist will do is an electrocardiogram (ECG). This test measures the electrical activity

of the heart muscle. The ECG gives the doctor information about heart rhythms and blood flow through the heart. It can detect heart muscle damage from previous mild heart attacks that may have occurred.

You may also walk on a moving treadmill to see how your heart responds to moderate levels of stress. A nuclear tracer test may be added to the treadmill exercise. The doctor injects a mildly radioactive fluid into your bloodstream. When viewed by special detectors, the fluid "lights up" portions of the heart. This shows if the heart function is normal.

These are the common tests that give doctors information about your heart without them probing your body. If something is clearly wrong, the most precise ways to measure heart damage are invasive tests that require going into the body. These include

- cardiac catheterization, which measures pressure in the heart with a long tube inserted into a blood vessel and threaded into the heart
- coronary arteriography, which is a set of X-ray pictures of the heart and coronary arteries taken after a dye is sent through the same tube used for catheterization

These tests need to be done at a hospital or specialized clinic.

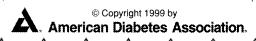
# **Treatment Choices**

octors generally treat heart disease in a patient with diabetes the same way as they treat it in other patients. For mild problems, they usually advise following a meal plan low in saturated fat, losing weight if you're overweight, and doing moderate exercise.

Treatment for heart disease also includes medicines. Some heart medicines have no known effect on blood glucose control. Other medicines can affect blood glucose. Diuretics, used to treat high blood pressure, may raise blood glucose levels. Be sure any doctor who prescribes medicine for you knows about your diabetes and any other medications you take. (For more on drug interactions see Diabetes Day-By-Day 16, Diabetes and Drug Interactions.)

Your doctor may suggest trying to repair or bypass blocked blood vessels. There are procedures to open the artery mechanically (angioplasty) or to bypass the blockage and get the blood flowing again. Studies have shown that bypass surgery gives better results than angioplasty for people with diabetes.

Discuss your own case carefully with your doctor and cardiologist. Be sure to get all your questions answered. For

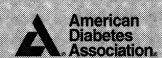


major surgical procedures, you may want a second opinion, if time permits.

### Take Heart

any people find that diabetes motivates them to live a healthier lifestyle. You can do a lot to work for cardiovascular health. Exercise. Quit smoking. Eat healthy. See your doctor regularly. There are ways to treat

heart disease, but a healthy lifestyle is by far your best defense.



The mission of the American Diabetes Association is to prevent and cure diabetes and to improve the lives of all people affected by diabetes.

OTHER RELATED MATERIALS:

See Diabetes Day-by-Day 2 ADA Nutrition Guide for People With Diabetes and Diabetes Day-by-Day 18 Treating Hypogylcemia.

HOW-TO-ORDER:

Call your American Diabetes Association affiliate or chapter (listed in the white pages of the phone book), or call the American Diabetes Association at (800) DIABETES or (800) ADA-ORDER.

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