Medical Tests and Procedures for Finding and Treating Heart and Blood Vessel Disease

What does diabetes have to do with heart and blood vessel disease?

If you have diabetes, you're much more likely to have

- heart disease
- blood vessel disease, such as atherosclerosis (ATH-er-oh-SKLER-oh-sis) (hardening of the arteries) or peripheral arterial disease (PAD)
- a heart attack
- a stroke

You can cut your chances of having these problems by eating healthfully, being physically active and taking medicines as prescribed. In addition to your regular checkups, your health care team can check your heart and blood vessels with special tests. Keep reading about tests and procedures.

Angiogram or arteriogram

In an angiogram (AN-gee-oh-gram) or arteriogram (ar-TEER-ee-oh-gram), the health care provider injects dye into the blood vessels and then takes X rays. This test shows whether arteries are narrowed or blocked. A coronary angiogram shows narrowing or blockages in the blood vessels that go to the heart. A cerebral arteriogram checks the blood vessels that go to the brain.

Angiography

This is a term for angiogram or arteriogram.

Angioplasty

Angioplasty (AN-gee-oh-plas-tee), also called percutaneous (per-cue-TAYN-ee-us) coronary intervention (PCI) or balloon angioplasty, is a procedure used to remove a blockage in a blood vessel to the heart (coronary angioplasty) or the brain (carotid angioplasty). A small tube with a balloon attached is threaded into the narrowed or blocked blood vessel. Then the balloon is inflated, opening the narrowed artery. A wire mesh tube, called a stent, may be left in place to help keep the artery open. Angioplasty may be done during a heart attack.

There are many medical tests and procedures to find and treat heart and blood vessel disease.

Ankle brachial index

A test called an ankle brachial (BRAY-kee-al) index or ABI is used to diagnose PAD. This test uses sound waves (ultrasound) to compare the blood pressure in the patient's ankles to the blood pressure in the patient's arms. If the blood pressure in the ankles is lower than the pressure in the arms, the patient may have PAD. The ABI also tells whether the amount of blood flow in the legs is reduced.

CABG

See coronary artery bypass graft.

Cardiac catheterization

Cardiac catheterization (CATH-ih-ter-ize-A-shun) is used as part of other tests to find and treat heart disease. A tube is inserted into an artery and guided into a blood vessel of the heart.

Carotid artery surgery

Carotid (kah-RAH-tihd) artery surgery, also called carotid endarterectomy (en-dar-teh-REK-teh-mee) or CEA, is used to remove buildups of fat inside the artery and to restore blood flow to the brain.

Catheter

A catheter is a long, thin tube.

Chest X ray

A chest X ray shows the size and shape of the heart and can also show lung congestion.

Coronary artery bypass graft

During a coronary artery bypass graft, also called a bypass or CABG (pronounced "cabbage"), a blood vessel taken from the patient's own leg, wrist, or chest is attached to the coronary artery to bypass a blockage and restore blood flow to the heart. A bypass graft can also be used for blood vessels leading to the brain.

Coronary calcium scan

Health care providers use electron-beam computed tomography (to-MOG-rah-fee) (EBCT) or multidetector computed tomography (MDCT) to look for calcium deposits in the coronary arteries, a sign of possible heart disease.

CT scan

A CT scan, also called computed tomography, produces images of organs such as the heart or the brain.

ECG

See electrocardiogram.

Echocardiogram

An echocardiogram (EK-oh-CAR-dee-oh-gram) uses ultrasound to produce images of the heart and blood vessels on a screen. Results show whether the heart is pumping blood correctly. A stress echocardiogram uses ultrasound and either exercise or medicine to provide images of the heart and blood vessels under stress.

EKG

See electrocardiogram.

Electrocardiogram

An electrocardiogram (ee-LEC-tro-CAR-dee-oh-gram), also called an ECG or EKG, provides information about heart rate and rhythm and shows whether there has been damage or injury to the heart muscle.

Exercise perfusion test

An exercise perfusion (per-FYOO-shun) test, also called a stress nuclear perfusion test, uses small amounts of radioactive material to make pictures of blood flow to the heart as a patient exercises.

Exercise stress test

An exercise stress test is used to find heart disease that shows up only during physical activity. This test can also help a patient choose the most appropriate physical activity program. Also called a treadmill test, a stress test uses an ECG to measure how the heart performs during activity, such as walking on a moving treadmill. A medication stress test uses medicine instead of exercise to increase the heart rate.

Holter monitor

A Holter monitor is a small, portable machine that records the heart's electrical activity. The person wearing the monitor keeps track of symptoms and activities for the evaluation period. Readings on the machine are compared with the person's symptoms.

MRI

MRI (magnetic resonance imaging) uses special scanning techniques to provide images of body tissues. MRA (magnetic resonance angiography) uses MRI to examine blood vessels.

Nuclear heart scan

A nuclear heart scan, also called a SPECT (single-photon emission computed tomography) scan, uses small amounts of radioactive material to check heart function, either while the body is at rest or during exercise. This test also can check the blood vessels that go to the brain.

Percutaneous coronary intervention (PCI)

This is another term for angioplasty.

PET scan

A PET (positron emission tomography) scan uses a special scanning method to provide images of body tissues.

Stent

A stent is a very small tube made of wire mesh. A stent is inserted into a blood vessel and left in place to keep the blood vessel open, helping blood to flow freely. A drug-eluting stent, also called a drug-coated stent, is covered with medicine that helps keep the blood vessel open.

Stress test

See exercise stress test.

Provided By

American Diabetes Association