Heart Health

Diagnosing Heart Disease

How is cardiovascular disease diagnosed?

There is no one test for cardiovascular disease. In general, doctors start by asking questions about your personal and family medical history. Next, they record any current and past symptoms you may have had. Some of the tests to diagnose or monitor heart disease are basic blood tests that check the level of cholesterol, and lipids, or fats, in your blood, your blood pressure and blood sugar levels and kidney function. Here's how to interpret the numbers:

- Lipid levels: The amounts of cholesterol and triglycerides (fat-like substances) in your bloodstream. These should be checked regularly, preferably in a fasted state (after at least 8 hours with no food or drinks other than water).
- Total cholesterol: Your total mix of good and bad cholesterol, plus triglycerides. Ideal is less than 200 milligrams per deciliter (mg/dL) of blood. Borderline is 200 to 239 mg/dL. And high is 240 mg/dL and above.
- Low density lipoprotein (LDL) cholesterol: One of the two "bad" types of cholesterol. The ideal level is 100 to 129 mg/dL, 130 to 159 mg/dL is borderline high, 160 to 189 mg/dL is considered high and 190 mg/dL is very high.
- Very low density lipoprotein (VLDL) cholesterol: This is the other "bad" cholesterol. Normal VLDL levels are from 2 to 30 mg/dL.
- High density lipoprotein (HDL) cholesterol: This is the "good" cholesterol. The ideal level is 60 mg/dL or higher. For men, an HDL of less than 40 mg/dL places them at a higher risk of heart attack and stroke. For women, an HDL of less than 50 mg/dL puts them at a higher risk of heart attack and stroke.
- Cholesterol ratio: The cholesterol ratio is determined by dividing the total cholesterol by the HDL cholesterol. For example, if a person has a total cholesterol of 150 mg/dL and an HDL cholesterol of 50 mg/dL, the cholesterol ratio would be 3.0. The goal is to keep the cholesterol

ratio below 5 with the ideal cholesterol ratio being 3.5 or lower.

- Triglycerides: Less than 150 mg/dL is ideal, 150 to 199 mg/dL is borderline high, 200 to 499 mg/dL is high and 500 mg/dL is very high.
- Blood pressure: According to the American Heart Association, the top number (systolic) should ideally be less than 120 and the lower number (diastolic) should be less than 80. The higher reading records the pressure when the heart contracts to pump blood to the body. The lower reading registers the pressure when the heart relaxes between beats. (Usually written, for example, as “120/80” and stated as, “120 over 80.”) A blood pressure of 140/90 or higher is considered high blood pressure, or hypertension.
- Glucose: Because diabetes seriously increases your risk of developing heart disease and stroke, it’s important to test your glucose (blood sugar) levels to know whether or not you are diabetic. A normal amount of glucose (sugar in the blood) is less than 100 mg/dL in a fasting state (not having eaten for 8 hours). Prediabetes is 100 to 125 mg/dL after fasting, and diabetes is 126 mg/dL or higher. Another blood test, the oral glucose tolerance test, calls for having your blood sugar tested while in a fasting state, then drinking a sugary beverage and testing your blood glucose again two hours later. If your blood sugar level is higher than 200, docs would diagnose you as having diabetes.
- Kidney function: Kidney damage can be a cause or an effect of cardiovascular disease. BUN (blood urea nitrogen), creatinine and uric acid are three common blood tests of kidney function.

Your health care provider might order additional tests related to cardiovascular disease. These may include an electrocardiogram (EKG or ECG), an echocardiogram, a chest X-ray, a computerized tomography (CT) scan, a magnetic resonance imaging (MRI) scan of the heart, stress tests or cardiac catheterization.

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