

There are several testing options for obstructive CAD, but which test is right for you? Review your options and talk with your healthcare provider. Together you can determine the right care plan for you.



## SEX-SPECIFIC BLOOD TEST

The only sex-specific blood test that takes into account the cardiovascular differences between women and men to help doctors rule out obstructive CAD.



**Type of Test:** Blood draw



**Time to Administer Test:** Less than 5 min



**Risks and Side Effects:** Possible discomfort and bruising at needle entry



**Usage:** Can help your doctor rule out CAD as the cause of your symptoms without additional testing; effective testing option for women and men



## ELECTROCARDIOGRAM (EKG)

Measures the heart's electrical activity. Small electrodes are placed on the chest while lying down or during a stress test.



**Type of Test:** Nonsurgical electrical heart monitoring



**Time to Administer Test:** Less than 30 min



**Risks and Side Effects:** Possible skin rash where electrodes are placed. In women, an EKG may be less reliable for diagnosing heart disease because of the way the heart membrane recovers after electronic impulses pass through it.<sup>1</sup>



**Usage:** Evaluates heart performance and related symptoms; can evaluate heart during and without stress



## EXERCISE STRESS TEST

Exercise test conducted on a treadmill (or stationary bike) to determine how the heart handles stress.



**Type of Test:** Nonsurgical electrical heart monitoring



**Time to Administer Test:** Less than 30 min



**Risks and Side Effects:** Possible skin rash where electrodes are placed; temporary drop in blood pressure. Very rarely, the test could cause a heart attack. Note: Due to estrogen's effect on heart muscle cells, a woman's menstrual cycle and birth control use can lead to abnormal results.<sup>1</sup>



**Usage:** Evaluates performance of the heart while it is under stress; looks for signs that the heart isn't getting enough blood flow during exercise



## NUCLEAR STRESS TEST

Test that utilizes exercise or medications to stress your heart; pictures are taken while your heart is under stress and at rest; uses an injection of dye for picture clarity.



**Type of Test:** Nonsurgical electrical heart monitoring while heart is both at rest and under stress



**Time to Administer Test:** More than 4 hrs



**Risks and Side Effects:** Exposure to radiation; possible allergic reaction to the dye. Very rarely, the test could cause a heart attack. Note: Due to a woman's breast tissue and other soft tissue, unclear images may appear with the test.







**Usage:** Similar to a routine exercise stress test, but provides images that can show areas of low blood flow throughout the heart and areas of damaged heart muscle



## ECHOCARDIOGRAM





An echocardiogram (echo) uses sound waves to produce images of your heart.

-  **Type of Test:** Nonsurgical ultrasound
-  **Time to Administer Test:** Less than 30 min
-  **Risks and Side Effects:** Possible skin rash where electrodes are placed
-  **Usage:** For structural evaluation of the heart, especially after a heart attack has occurred; usually additional testing is needed to detect obstructive disease



## CORONARY CALCIUM SCAN





Scan that uses X-rays to create detailed pictures of the heart and blood vessels. Used to view calcium buildup in arteries. This test is intended for patients who show no signs of heart disease.

-  **Type of Test:** Nonsurgical CT scan (X-ray)
-  **Time to Administer Test:** Less than 30 min
-  **Risks and Side Effects:** Radiation exposure
-  **Usage:** Provides images of heart arteries and valves; can be used with other tests for early detection of CAD



## MAGNETIC RESONANCE ANGIOGRAPHY





Chest scan that uses magnetic fields and radio waves to provide pictures of blood vessels around the heart; uses an injection of gadolinium dye.

-  **Type of Test:** Nonsurgical MRI scan; dye is injected into a vein
-  **Time to Administer Test:** More than 90 min
-  **Risks and Side Effects:** Gadolinium dye can be dangerous for diabetics or those with renal disease.
-  **Usage:** Evaluates weaknesses within arteries; accurate and radiation-free



## INVASIVE CORONARY ANGIOGRAPHY

Surgical procedure using X-ray imaging conducted with the injection of a special dye to find narrowed or blocked coronary arteries.

-  **Type of Test:** Surgical procedure and X-ray imaging; dye is injected into a catheter placed in the heart arteries
-  **Time to Administer Test:** Less than 60 min
-  **Risks and Side Effects:** Exposure to radiation, possible injury to the artery, allergic reaction to the dye, kidney damage, bleeding. Very rarely, the test could cause heart attack or stroke.
-  **Usage:** Evaluates amount of blockage within coronary arteries; usually requires a hospital stay the night before

1. Gender differences in diagnosis and management of heart disease and cardiac arrhythmia management: why women are different from men. Women's Heart Foundation website. [http://www.womensheart.org/content/HeartDisease/gender\\_differences.asp](http://www.womensheart.org/content/HeartDisease/gender_differences.asp). Accessed December 3, 2014.