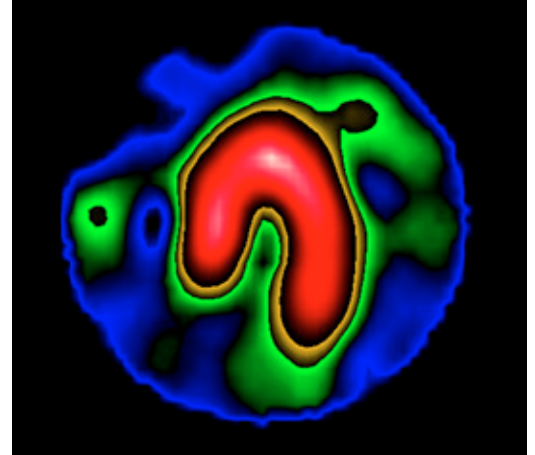


MYOCARDIAL PERFUSION IMAGING

Myocardial Perfusion Imaging (MPI) is a type of image-based stress test used to help detect coronary artery disease (CAD) and other heart conditions. It is known by several names, including MPI SPECT, nuclear cardiology, and thallium stress test.

During the test, a small amount of radioactive tracer material is injected intravenously (IV). As the tracer moves into the bloodstream and through the heart muscle, areas that have good blood flow absorb it. Areas that do not absorb the tracer may not be getting enough blood. Once the tracer is distributed throughout the body, pictures are taken with a special camera.



The test is usually performed after exercise. This will show a lack of blood flow that might not be seen on resting heart tests. The test may be performed under stress (exercise) only, or at rest *and* under stress (which shows a contrast between the two). Sometimes, resting heart rate images are not needed because the doctor already knows how the heart is performing while at rest.

How it Works

Here's how the stress part of the test works:

1. If you can exercise at a sufficient level, then you will be asked to exercise (on a stationary bike or treadmill). If you are not able to exercise, the doctor will induce stress by injecting a drug in your body.
2. Right before the heart has reached a certain level of activity, the radioactive tracer material is injected. Exercise continues for approximately one more minute.
3. You will then rest for about 30 minutes so the tracer can circulate in your body.
4. After that, stress images will be taken.
5. If both resting and exercise images are needed, resting images can be taken *before* or *after* the stress images.

Benefits

MPI is a non-invasive, standard test that is available in many cardiologists' offices.