



Pulse Volume Recording Study Preparation & Information

What is a Pulse Volume Recording (PVR) study?

A PVR study is a noninvasive vascular test in which blood pressure cuffs and a hand-held ultrasound device (called a Doppler or transducer) are used to obtain information about arterial blood flow in the arms and legs. Noninvasive means the procedure does not require the use of needles, dyes, radiation or anesthesia. The blood pressure cuffs and Doppler are used to determine the presence, severity and general location of **peripheral arterial occlusive disease**.

There are several types of PVRs, including: the Ankle Brachial Index (ABI) and the Exercise Testing PVR.

The ABI is a measurement of the blood pressure in the lower leg compared to the blood pressure in the arm. Your physician will compare the two numbers to determine your ABI. Normally, the blood pressures in your ankle and arm should be about equal. But if your ankle pressure is half your arm pressure (or lower), it could be a sign that your leg arteries are narrowed. The blood pressure cuffs are placed on the arm and leg and inflated, while the Doppler is used to listen to the blood flow in the leg and arm. The ABI helps your physician diagnose arterial disease in the legs, but it does not identify which arteries are blocked.

During the exercise testing PVR, the patient walks on a treadmill to try to reproduce the symptoms he or she has experienced. Then, the blood pressure cuffs are placed on the patient's arms, legs, thighs, ankles, calves and feet. The blood pressures are measured again to determine the location of the potential blockage or narrowed area.

This exam takes approximately 45 to 90 minutes to complete. Please plan to arrive about 15 minutes before your scheduled appointment to complete the registration process.

Before the Test

- Please do not bring valuables such as jewelry and credit cards.
- Do not smoke or participate in strenuous activities for 24 hours before the test.
- You may take your usual medications.
- There are no special dietary guidelines; you may eat and drink as you normally would.
- You will be asked to change into a hospital gown and to remove all jewelry.

During the Test

- You will lie on a padded examining table during the test. You may walk on a treadmill for part of the test, depending on the type of test that has been ordered.
- Several blood pressure cuffs are placed on various parts of your arms and legs, depending on the area being examined and a small amount of water-soluble gel is applied to the skin over the area to be examined. The gel does not harm your skin or stain your clothes.
- You may experience mild discomfort while the blood pressure cuffs are inflated.

After the Test

The gel will be wiped off your skin. You may go home or to your other scheduled appointments after the test. There are no activity restrictions after the test. After your physician reviews the test results, a final report will be generated. Your physician will discuss the test results with you.