

PERIPHERAL VASCULAR ULTRASOUND

Peripheral Vascular Ultrasound

Definition

Peripheral vascular ultrasound is a noninvasive diagnostic technique used to evaluate the health of blood vessels. Ultrasound uses high frequency sound waves to capture an image, similar to the use of sonar in submarines.

Parts of the Body Involved

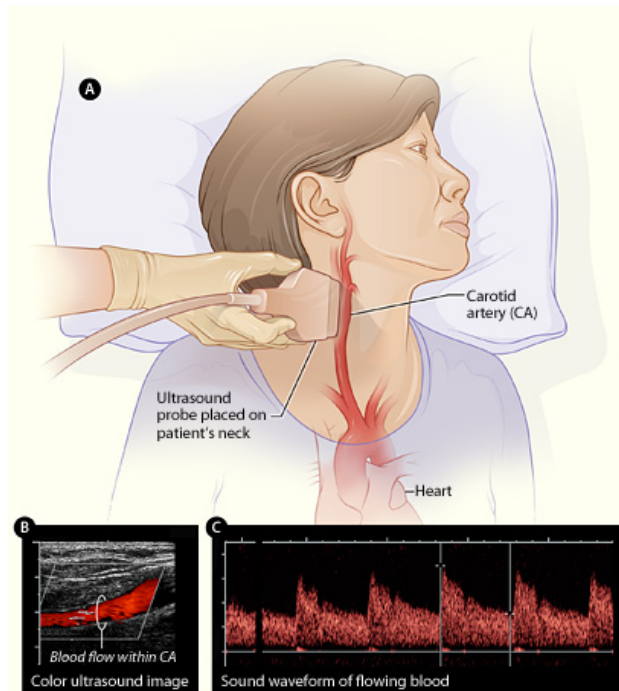
Most blood vessels, both arterial and venous, can be evaluated safely with ultrasound.

Reasons for Procedure

The diseases that affect blood vessels are primarily atherosclerosis of arteries and slowing of blood flow through veins. These conditions can lead to clotting and embolism (blockage of a blood vessel by a clot that has traveled from another location).

Atherosclerosis of arteries is the leading cause of strokes, heart attacks, and peripheral vascular occlusive disease.

Veins most often causing trouble are those in the legs and lower abdomen. When their flow dynamics are disturbed—usually by incompetent valves—blood flow slows, the veins enlarge and become varicose, and clots can form, causing inflammation of the veins or sending blood clots into the lungs.



The procedure is also used to evaluate the results of vascular surgery.

Risk Factors for Complications During the Procedure

This procedure is completely safe and noninvasive. There are no complications.

What to Expect

Prior to Procedure

You may be asked to stop smoking and avoid taking anything by mouth for the eight or so hours before the procedure.

Anesthesia

None

Description of the Procedure

There are two types of ultrasound. One is a simple one-dimensional beam that detects movement by making a swishing sound. This is used to detect a baby's heartbeat in the womb, blood flow in arteries that may be compromised by atherosclerosis, or trauma and blood flow in veins that are varicose or contain clots.

The other technique is a combination of two dimensional imaging and Doppler sensing. Two-dimensional imaging produces pictures of babies in the womb and the heart as it beats. When Doppler detection is added, blood flow in the imaged structures is colored red or blue, depending upon which way the blood is flowing. The combined image gives a detailed picture of both anatomy and function.

After Procedure

There are no after effects. You will be able to return to your usual activities.

How Long Will It Take?

30-60 minutes

Will It Hurt?

No

Possible Complications

None

Average Hospital Stay

None

Postoperative Care

None

Outcome

This is a diagnostic procedure. Its results may indicate the need for vascular surgery

