

Nonatherosclerotic Peripheral Artery Disease

The recommended imaging tests for nonatherosclerotic peripheral artery disease (<https://www.radiologyinfo.org/en/info/pad>) include ultrasound (<https://www.radiologyinfo.org/en/info/vascularus>) duplex Doppler (ultrasound), intravascular ultrasound (inside arteries), MR angiography (<https://www.radiologyinfo.org/en/info/angiomr>) (MRA; MRI of arteries with or without intravenous [IV] contrast dye), CT angiography (<https://www.radiologyinfo.org/en/info/angioc>) (CTA; CT scan of arteries using IV contrast), arteriography (x-rays of arteries with IV contrast).

If a pinched artery around the knee is suspected or if narrowing of artery leading to legs is suspected, then CTA, MRA of the lower extremities without and with IV contrast, and ultrasound are usually appropriate as initial imaging tests. MRA without contrast and arteriography may be appropriate.

For those with suspected or known inflammation of the blood vessels of the lower extremities, arteriography or CTA is usually appropriate, as is MRA without and with IV contrast. An MRA without IV contrast or ultrasound may be appropriate.

In cases of a suspected or known tear in a blood vessel or in an individual with connective tissue lower extremity vascular disease, CTA or MRA without and with IV contrast is usually appropriate. MRA without IV contrast or arteriography may be appropriate.

With suspected or known other noninflammatory lower extremity vascular diseases (such as fibromuscular dysplasia or segmental arterial mediolysis), a CTA, MRA without and with IV contrast, or arteriography is usually appropriate. An MRA without IV contrast, an ultrasound, or intravascular ultrasound may be appropriate.

In individuals with trauma to the lower extremity blood vessels, a CTA is usually appropriate. An arteriography or ultrasound may be appropriate.

For more information, see the Peripheral Artery Disease (PAD) page (<https://www.radiologyinfo.org/en/info/pad>) .

— Susan Anemone and MacArinze Ojiaku, MD. This information originally appeared in the Journal of the American College of Radiology.

Disclaimer

This information is copied from the RadiologyInfo Web site (<http://www.radiologyinfo.org>) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided "as is" without express or implied warranty.

Please visit the RadiologyInfo Web site at <http://www.radiologyinfo.org> to view or download the latest information.

Note: Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple

distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright ® 2026 Radiological Society of North America, Inc.