

Abdominal Aortic Aneurysm: Interventional Planning and Follow-up

An abdominal aortic aneurysm (<https://www.radiologyinfo.org/en/info/abdoaneurysm>) is a balloon-like enlargement of the aorta, the largest artery in the abdomen and pelvis. The enlargement is often related to atherosclerosis (buildup of waxy plaque on the inside of blood vessels), which can cause the walls of the aorta to bulge out. Typically, treatment is necessary if the aneurysm diameter is bigger than 5.5 cm or if the diameter grows by 1 cm or more in a year.

There are two possible treatment options. In endovascular aneurysm repair (EVAR), a stent is inserted into the vessel using a catheter. The other option is open surgery to replace the damaged area of the aorta through an incision in the abdomen. The best option depends on the person's anatomy and location of the aneurysm. Planning for treatment is done with imaging. Most commonly, computed tomographic angiogram (CTA) (<https://www.radiologyinfo.org/en/info/angiocr>) or magnetic resonance angiogram (MRA) (<https://www.radiologyinfo.org/en/info/angiomr>), in which contrast material is injected intravenously to highlight blood vessels and surrounding organs, is used. Other imaging tests may be appropriate to use for planning. These include CT with or without contrast and MRA without contrast. Aortography, an imaging procedure using x-rays with contrast inserted into an artery to view the aorta and smaller arteries, may also be appropriate.

After EVAR or open surgery, follow-up imaging examinations are needed to watch for any complications. Both CTA and MRA are usually appropriate. Other imaging tests may be appropriate, including CT with and without contrast, CT and MRA without contrast, x-ray (<https://www.radiologyinfo.org/en/info/abdominrad>), ultrasound (<https://www.radiologyinfo.org/en/info/abdominus>), and aortography.

For more information, see the *Abdominal Aortic Aneurysm (AAA)* page (<https://www.radiologyinfo.org/en/info/abdoaneurysm>).

— By Lauren Yates and Ryan K. Lee, MD, MBA, MRMD. 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.