Abdominal aortic aneurysm
Interventional radiologists are board-certified physicians who deliver minimally invasive treatments with less risk, less pain and less recovery time than surgery. Most interventional radiology (IR) procedures are delivered via catheters through a tiny nick in the skin and use different types of radiology imaging guidance, including x-ray, CT scanning and ultrasound, to deliver precise treatment. For many of the therapies, patients receive medicine in their veins through an IV that helps them relax (sedation) or, in some cases, patients receive anesthesia. Many treatments are performed on an outpatient basis or with a short hospital stay. Learn more or find an interventional radiologist near you at sirweb.org.
What is abdominal aortic aneurysm (AAA)?

AAA is an enlargement of the aorta, the main artery in the abdomen. The aorta is important because it carries oxygen-rich blood from the heart to much of the body, including the intestines, kidneys and legs.

Several risk factors are associated with AAA:

- AAA is much more common in those age 60 and over.
- It is also more common among those whose relatives have had AAA.
- AAA is six times more common in men than women.
- Smoking increases the risk of aneurysm seven times.

The most common cause of an aneurysm is hardening and narrowing of the arteries, or “atherosclerosis,” caused by fat deposits in the vessel wall. Atherosclerosis occurs after decades of high blood pressure, high cholesterol and/or smoking.

Atherosclerosis weakens the vessel wall, which begins to thin and balloon outward causing the aorta to increase in size. If they grow large enough, AAA can cause the vessel to tear, resulting in internal bleeding, a life-threatening medical emergency.

Although ultrasound is a common method of monitoring aneurysms, other types of technology may also be used.

Interventional radiology treatments

Your interventional radiologist may decide to treat an aneurysm if it grows too quickly or becomes too large. Treatment is also suggested if an aneurysm causes pain in the chest, abdomen or legs.

Interventional radiologists provide the least invasive treatment option—inserting a metal tube called a “stent” into the aorta to help support the vessel wall and prevent an aneurysm from growing. The stent is covered in a high-tech fabric to create a graft. The stent-graft is inserted into the aorta through small skin incisions at the top of both thighs.

The procedure can be performed using local anesthesia to numb the skin and with painkillers like those used at the dentist’s office. This treatment helps patients avoid major surgery, reducing recovery time and decreasing risk of death during hospital stay.
If an AAA grows too large, an interventional radiologist may insert a metal stent to help support the vessel wall.
What can I expect after the treatment?
After the stent-graft is inserted, the instruments are removed and small bandages are used to cover the incisions. You will need to keep your legs straight for 2 hours, then recover overnight in the hospital. If no complications occur, patients are typically sent home the next morning.

You will be instructed not to lift heavy objects for 2 weeks or soak in the tub for 1 week. However, you will generally be able to do anything else you like while you heal. The procedure results in no large scar, and no painkillers are required. You will not need to take significant time off work.

Recovery
The recovery time for AAA repair varies by the patient. In general, patients remain in the hospital for a few days and can expect to recover fully after about a month to 6 weeks.

Follow-up
Your interventional radiologist is part of your clinical care team and will work closely with the other members of your healthcare team to ensure that you receive the best possible care. This includes follow-up during your hospital stay and after you are discharged. During your follow-up appointment, your interventional radiologist will evaluate your progress and address any remaining issues or symptoms that you may have.
For more information on how interventional radiology can help you, the Society of Interventional Radiology’s website, sirweb.org, provides easy-to-use tools to find a local interventional radiologist. He or she will be able to answer any additional questions you may have.

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