Surgery for Abdominal Aortic Aneurysm

During surgery for abdominal aortic aneurysm (AAA), the weakened aortic wall is replaced with a hollow manmade tube (a graft).

Reaching the Aneurysm

The aorta can be reached through open surgery. Or a less invasive endovascular procedure may be done. Your surgeon will choose the best approach for you.

Open Surgery

An incision is made in your abdomen. Once inside, your surgeon gently moves aside your organs to reach the damaged section of the aorta.

Endovascular Procedure

Near your groin, 2 small incisions are made. Then a catheter (a thin, flexible tube) is threaded into the artery at the incision. A graft is placed inside the catheter and guided toward the damaged part of the aorta.

Placing the Graft

The goal is to safely route blood past the aneurysm.

During Open Surgery

- The aneurysm is opened and cleaned of any blood clot.
- The graft is sewn to the aorta.
- The wall of the aorta is wrapped around the graft to protect it. The wall is then sewn up.
- The incision site is closed with sutures or staples.

During an Endovascular Procedure

- Watching the catheter on a video monitor, the surgeon places the catheter in the best position.
- The graft is expanded so blood can flow through it.
- The graft is attached inside the artery. It is held in place with stents (metal springs), hooks, or pins.
- The catheter is removed. The incision sites are closed with sutures or staples.

During open surgery, a graft replaces the weakened section of aortic wall. Then the aortic wall is wrapped back around the graft.

During an endovascular procedure, a graft is inserted inside the aortic wall. The graft is then secured to the aorta above and below the aneurysm.

Risks and Complications

- Infection
- Blood clots in legs
- Bleeding
- Kidney failure
- Pneumonia
- Injury to the colon’s blood supply
- Erectile dysfunction
- Spinal cord injury
- Heart attack, stroke, or death