

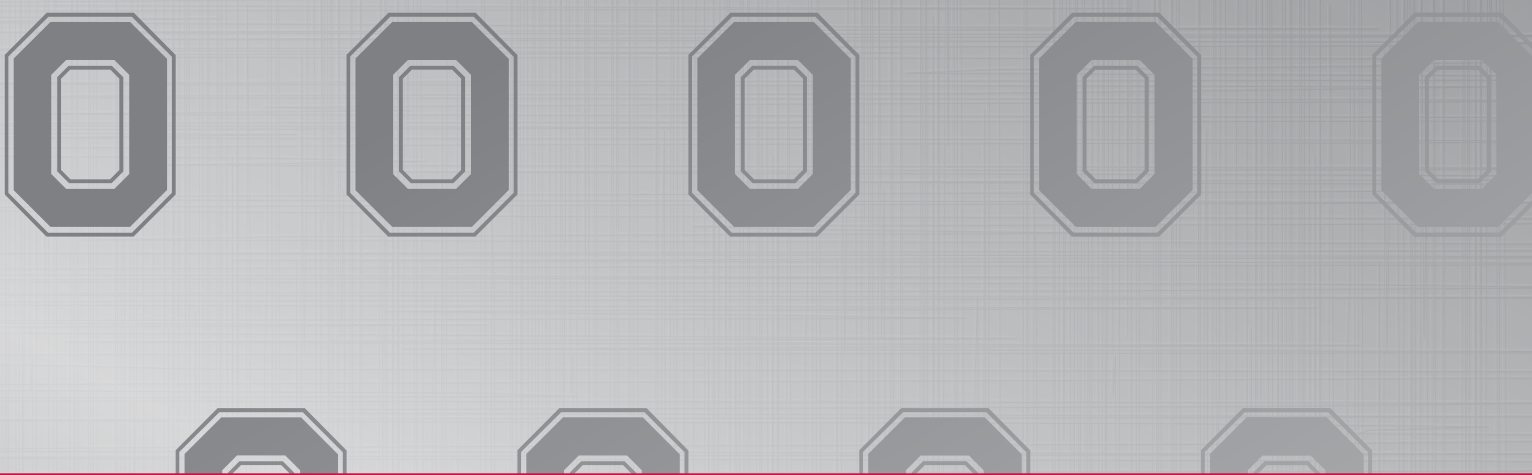
# Getting Ready for Open AAA Repair

Abdominal Aortic Aneurysm Repair



**THE OHIO STATE UNIVERSITY**

WEXNER MEDICAL CENTER



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**Talk to your doctor or health care team if you have any questions about your care.**

For more health information, go to [wexnermedical.osu.edu/patiented](http://wexnermedical.osu.edu/patiented) or contact the Library for Health Information at 614-293-3707 or [health-info@osu.edu](mailto:health-info@osu.edu).

# Welcome

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Your doctor is recommending that you have an open repair to treat your abdominal aortic aneurysm (AAA).

We hope this book will help you better understand what an abdominal aortic aneurysm is, what your procedure includes, and what you can expect before and after the procedure.

Please review this book to learn what you need to do to prepare for your procedure. Call our office if you have questions or if there is anything that you do not understand.

## **Driving directions, billing and visitor information:**

Visit [wexnermedical.osu.edu/patient-and-visitor-guide](http://wexnermedical.osu.edu/patient-and-visitor-guide).  
Hotel information can be found under Visitor Policies.

For a digital copy of this book, please visit:  
[go.osu.edu/pted4724](http://go.osu.edu/pted4724).

## **Contact information**

**Call 614-293-8536**

### **Before the procedure to:**

- Ask questions.
- Check the arrival time for your procedure.
- Cancel or reschedule within 24 hours of the procedure.

### **After the procedure to:**

- Ask questions.
- Report problems you are having.



# Preparing for Your Aneurysm Repair

Your procedure date is \_\_\_\_\_ with Dr. \_\_\_\_\_ .

A nurse from the doctor's office will call you 1 business day before your procedure with your arrival and surgery time, and to confirm any medicines you should take on the morning of surgery.

## Weeks before your procedure

- **If you are on blood thinners or antiplatelet medicines**, please let your surgeon know in case any medicine needs to be stopped before surgery. Examples are:
  - Arixtra (Fondaparinux)
  - Brilinta (Ticagrelor)
  - Coumadin (Warfarin)
  - Effient (Prasugrel)
  - Eliquis (Apixiban)
  - Lovenox (Enoxaparin)
  - Plavix (Clopidogrel)
  - Pletal (Cilostazol)
  - Pradaxa (Dabigatran)
  - Savaysa (Edoxaban)
  - Ticlid (Ticlopidine)
  - Xarelto (Rivaroxaban)
- **You will be started on aspirin and a statin medicine** before your procedure, unless you are already taking these or have allergies to these medicines.
- You may need to have lab work, a chest x-ray or other testing before this procedure, as directed.
- **If you smoke or use other tobacco products**, please stop right away to avoid wound healing problems. If you are not able to stop, please decrease the amount used each day to lessen your risk of wound healing problems or pneumonia after the procedure. If you would like more information on smoking cessation, please call **614-293-QUIT (7848)** to connect with a pharmacist for one-on-one assessment, counseling and treatment.
- **If you are feeling ill or develop a new rash during the week before surgery**, please call the surgeon's office at 614-293-8536.
- Plan for the help you will need after you leave the hospital. Refer to Planning for Recovery on page 8 for more information.
- Please complete the pre-procedure worksheet we gave you to bring the day of your procedure. This includes information that will help your health care team coordinate your care.

## The evening before your procedure

- **Wash from the neck down with the chlorhexidine (CHG) soap** you were given. Please read the instructions, *Getting Your Skin Ready*, on page 6 of this book.
- **Do NOT eat or drink anything after midnight**, including gum or mints, except a few sips of water with medicine you are instructed to take on the morning of surgery.

## Morning of your procedure

- Wash again from the neck down with the CHG soap you were given.
- Follow your doctor's instructions about which of your medicines to take the morning of your surgery.

### **Please bring these items with you:**

- Phone number for the doctors and pharmacy you use.
- List of preferred home health agencies or rehabilitation centers.
- Current copy of your medicine list or your bottles of medicines. Be sure to include any vitamins, herbals or other over the counter medicines.
- Your Living Will and Health Care Power of Attorney forms (if you have them).
- Comfortable clothing, such as a robe, slippers and toiletries.
- Do NOT bring jewelry, money or other valuables.
- Please bring your completed pre-procedure worksheet and give it to \_\_\_\_\_.

# Getting Your Skin Ready

## Evening Before and Morning of Procedure

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Because germs live on everyone's skin, there is a chance of getting an infection when your skin is cut during surgery. To reduce the chance of infection, clean your skin with a special soap called 4% chlorhexidine gluconate or CHG.

- **Do not shave** for at least 48 hours near the site for your surgery cut.
- Clean your skin with CHG soap the night before your surgery and again the morning of your surgery.
- CHG soap does not bubble and lather like most soaps.
- Be careful not to get CHG into your eyes, nose, mouth or ears. If you do, rinse well with clean water.

### Cleaning your skin with CHG

1. Get in the shower and wash your hair with your normal shampoo and wash your body with regular soap. Rinse your hair and body very well.
2. Wet a clean washcloth and then turn off the shower.
3. Put **4 ounces (½ cup) of CHG soap or 4 to 5 pumps of CHG foam** on the wet, clean washcloth.
4. Wash your whole body from the neck down with the CHG soap or foam the night before your surgery and then again the morning of your surgery. Continue to wash your body gently for 5 minutes, paying special attention to the part on your body where the surgery will be done. Be sure to wash the back of your neck, under your arms, your belly button, private parts and your legs down to your toes. Do not scrub too hard.
5. Turn the shower back on and rinse well to get the CHG soap off of your body.
6. Pat yourself dry with a clean, dry towel.

### After using CHG

- Do not use deodorant, lotions, powders, make-up or other products on the skin near the part of your body that will be cut for surgery.
- Put on clean clothes.

### If you are not able to shower

If you do not have a shower or if you are not able to get into the shower, do a sponge bath with CHG soap instead.

1. First, bathe with a washcloth and regular soap. Rinse with clean water.
2. Wet a clean washcloth and apply ½ cup (or 4 to 5 pumps) of CHG soap to your whole body from the neck down for 5 minutes. Pay special attention to the part of the body where the surgery will be done.
3. Rinse well with another clean washcloth and plain water.
4. Pat yourself dry with a clean, dry towel.

## How to shower with CHG soap

**1** Wash your hair as usual with your regular shampoo and then wash your body with regular soap.  
Rinse well.

**2** Wet a clean washcloth. Turn off the shower.

**3** Apply some CHG soap to the wet washcloth.

**4** Use the washcloth to wash your whole body **from the neck down**.  
Keep adding more CHG and continue to wash for **5 minutes**.

**5** Turn on the shower water and rinse your whole body well.

**6** Pat yourself dry with a **clean** towel.

**7** Put on **clean** clothes.

**8** **Note:** On the **morning of surgery** when you finish showering, **do NOT** put on hair or skin care products, deodorant or make-up. **Do NOT** wear jewelry to the hospital or surgery center.

Be sure to repeat your shower with CHG in the morning before your procedure.

# Planning for Recovery

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## Your care after leaving the hospital

Most often, patients having this procedure will stay in the hospital for 5 to 7 days.

You should have someone to help you around the clock for the first day after you leave the hospital and then for parts of the next few days to help you as needed.

Your incision sites may be sore and you may feel some discomfort in your abdomen for a few days. You may need some help to care for your incisions.

Limit any lifting to less than 10 pounds for 6 weeks after your procedure.

## Plan for help after your procedure

Our goal is for you to be able to return home from the hospital to recover. However, some patients may need home health services or a short stay in a skilled nursing or rehabilitation center.

**Contact your insurance provider** to get a list of care providers in your network for home health services, skilled nursing facilities, or rehab centers close to your home if you should need one.

**Bring your list of 2 or 3 home health services or nursing facilities** to share with your social worker or case manager. They will help to make arrangements before you leave the hospital.

**If you do not have benefits** for home health services or skilled nursing facilities, make a plan with your family and friends to help you at your home or their home for a few days.

## Talk to your insurance provider

Know your options to help you plan for your care after your procedure.

If you have Medicare A or B:

- Ask for lists of nursing homes or home health services in your area.
- You can also get the lists at **[www.Medicare.gov](http://www.Medicare.gov)**.

If you have private insurance or Medicare Advantage:

- Call the phone number on the back of your insurance card. Tell them you are having surgery, and you want to know about your skilled nursing or nursing home benefits. Ask them for a list for your area.
- Review the list and call the Admissions Director at several sites. If you can, visit the sites to see which sites you prefer.

# Abdominal Aortic Aneurysm (AAA)

The **aorta** is your body's main artery that carries blood from your heart to the rest of your body. It starts at the left side of your heart with branches to the upper body. The abdominal aorta runs down through your abdomen to carry blood to the lower body.

An **aneurysm** is a weak part of a blood vessel wall that swells and bulges out. Aneurysms can happen in any blood vessel but are most common in the aorta in the abdomen.

## Risk factors

**Abdominal aortic aneurysms** are more common in people over age 60, but they can occur at any age. Men are more likely to have this condition than women. Other risk factors can include:

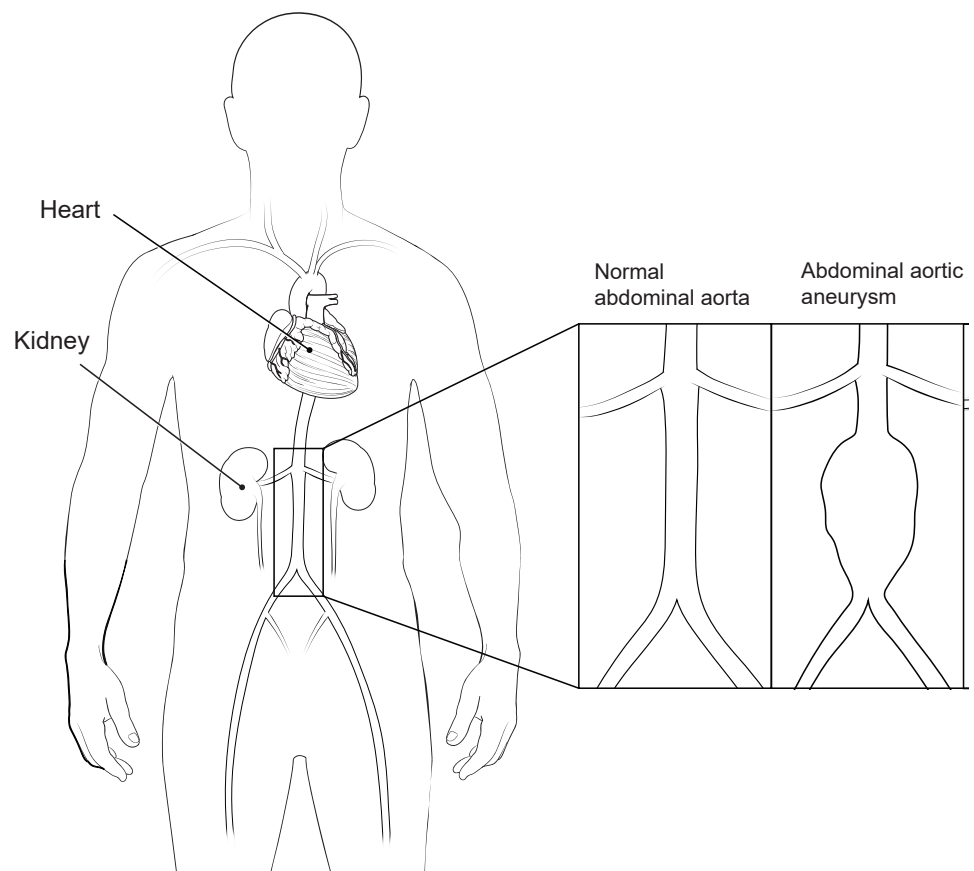
- Smoking or other tobacco use
- High blood pressure
- Family history of abdominal aortic aneurysm
- Lung disease
- History of atherosclerosis, also known as hardening of the arteries

Aneurysms often cause no problems if they are small and do not grow. When an aneurysm grows larger, it can burst or rupture, causing severe bleeding and even death. Clots can also build up in the aneurysm that could break loose to block circulation in other parts of your body.

## Treatment

Your doctor will recommend treatment based on the size and location of your AAA. This may include:

- Lifestyle changes, such as smoking cessation and lowering your blood pressure.
- Before surgery is needed, the AAA may be checked regularly for changes.
- Surgery for larger AAA that grows.



# Open Aortic Aneurysm Repair (AAA) with Graft

Open surgery is the more common way to repair an abdominal aortic aneurysm. It is called an open surgery because the abdomen is opened so the doctor can see and work on the aorta. A tube, called a graft, is used to replace the weak and bulging section of the aorta.

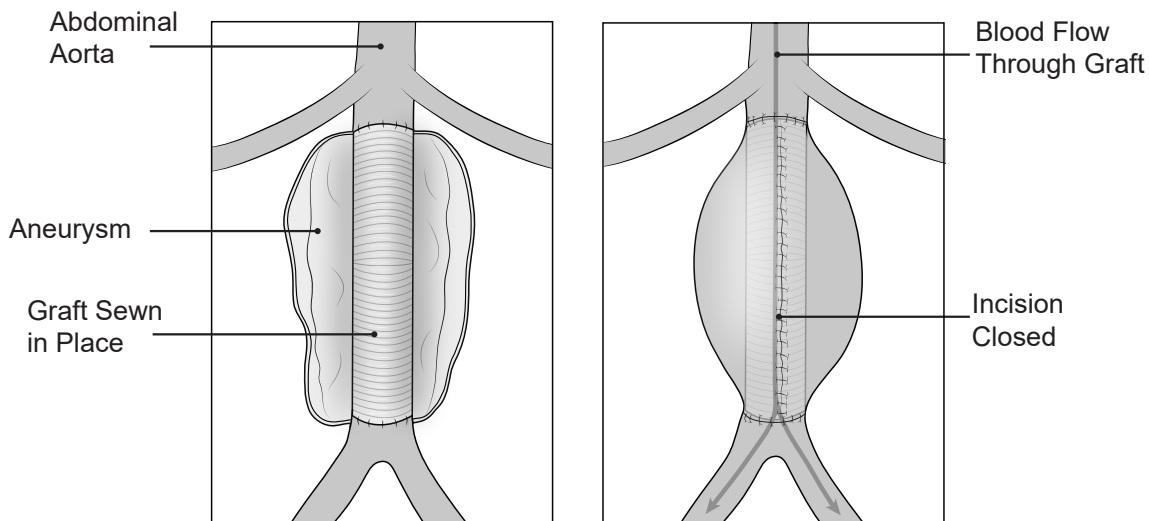
Your doctor will talk to you about why this procedure is recommended, the risks and benefits, and any possible problems that could occur.

Ask questions about anything you do not understand.

## How the procedure is done

- You will have general anesthesia, so you will be asleep for this procedure. The anesthesiologist will meet with you before the procedure in the Pre-op area and have you sign a consent form.
- For pain relief, some patients may get ongoing medicine through their spine, called an **epidural**. It is removed a few days after the procedure. Another method of pain control is a **regional block**. You will be given an injection by the anesthesia team before your procedure that will make the area of your procedure feel numb. Talk with your anesthesia team about which method will be used for your procedure.
- You will have a tube, called a Foley catheter, placed to drain urine from your bladder during the procedure.
- Your doctor will make an incision (cut) down the middle of your abdomen or on the side of your rib cage to the left side of your abdomen. Please ask your doctor what approach they will use for your procedure.

### Open Surgery Repair



- Clamps are placed on the aorta to stop the flow of blood while the repair is being done.
- After opening the aneurysm, a graft is sewn in place to make the area stronger and to help blood to flow properly.
- The clamps are removed and the graft is checked to make sure that blood does not leak where the graft is attached to the aorta. Your incision will be closed.
- The graft procedure may take 2 to 5 hours, depending on how complex the aneurysm is.

## Care after procedure

- Your blood pressure, heart rate, breathing and temperature will be checked often, including during the night.
- Your incision site will be checked for bleeding.
- The pulses in your feet will be checked to make sure there is enough blood flow.
- **To avoid falls, you will be helped to get out of bed, to walk in your room and to walk in the hallway.** Be sure you call for staff to help you to get out of bed.
- The Foley catheter will remain in place until you are able to be up. The Foley is most often removed before you leave the hospital.
- You should use your breathing exerciser every 1 to 2 hours while you are awake. Hold a pillow against your abdomen for support when coughing or deep breathing.
- If you are a male with an enlarged prostate, you may be on a medicine called Flomax. You may also be scheduled for a urology follow up visit.
- Pain at the incision site is often able to be managed, but medicine will be available if needed. A pain pump may be used to help control your pain when it starts to bother you.
- You may have some tenderness or swelling around your incision for 1 to 3 days.
- You will be given instructions about when it is safe for you to shower and how to do it. No tub baths or sauna use until it has healed, usually in 2 weeks.
- It is common for you to be in the hospital for 5 or 7 days after this procedure.

## Care at home

You will be given specific discharge instructions before you leave the hospital. Care will often include:

- **Antiplatelet or blood thinner medicine** to prevent clots from forming in the graft.
- **Statin medicine**, such as Lipitor, may be ordered to lower your blood cholesterol to reduce plaque build up in your arteries.
- You may have staples, sutures or glue holding your incision closed. The nurse will teach you about caring for your incision site before you leave the hospital.
- **Use your breathing exerciser every 1 to 2 hours** or as directed when you are awake. Do this for the next 2 weeks to help reduce your risk of pneumonia.
- Take it easy the first few days you are home, but **walk 3 to 4 times each day on flat surfaces.**
- **Lifting will be limited to 10 pounds for 6 weeks.** A gallon of milk weighs about 8 pounds.
- **You are not to drive until you have your first follow up visit and are not on pain medicine.** Your doctor will talk to you about when you can start driving again at that visit.

- **When resting, raise you legs up above the level of your heart** with pillows or blankets to help your blood flow.
- Your doctor will talk to you about returning to work at the first follow up visit.



## Lifestyle changes

After your recovery, talk with your doctor about your activities, diet and any changes you may need to make to help your health. Common changes include:

- Not smoking or using any tobacco products.
- Eating a heart healthy diet.
- Exercising for at least 30 minutes on 5 days each week.
- Taking your medicines as ordered by your doctors.
- Controlling your blood pressure, lowering your cholesterol, and keeping your blood sugar in a healthy range, if you have diabetes.

Talk to your doctor about making a plan for you.

## Call your doctor right away

Call your doctor right away if you have:

- Pain in your belly or back that does not go away.
- Bleeding from your incision site that does not stop after applying direct pressure.
- Increased swelling at the site.

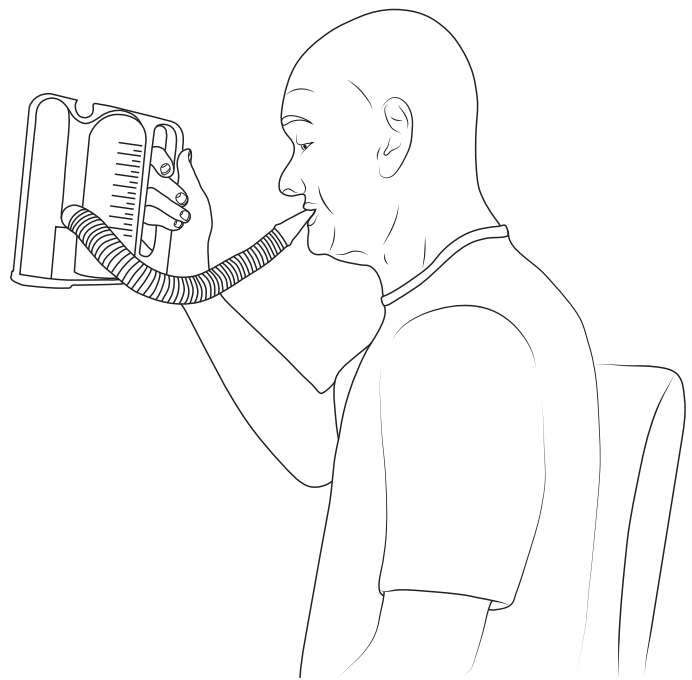
# How to Use an Incentive Spirometer

## Breathing Exerciser

Use your incentive spirometer, also called a breathing exerciser, to help you take deep breaths to open the air sacs in your lungs. This helps to reduce the chance of developing breathing problems, like pneumonia, after surgery. Use your breathing exercises every 1 or 2 hours each day. You will do these exercises in the hospital and for 2 to 3 weeks at home, as you recover from surgery.

### Steps for use

1. If possible, sit up straight. It may help to sit on the edge of a chair or your bed.
2. Hold the incentive spirometer upright.
3. Breathe out and then close your lips tightly around the mouthpiece. Take in a slow deep breath through your mouth.
4. As you take a deep breath, the piston in the clear chamber of the incentive spirometer will rise. Breathe in slowly to allow the air sacs in your lungs time to open. Your incentive spirometer has an indicator to let you know if you are breathing in too fast.
5. After you breathe in as deeply as you can, hold your breath for 3 to 5 seconds. Set the goal indicator tab at the level that you reached.
6. Take out the mouthpiece and breathe out slowly. Relax and breathe normally for a few seconds until the piston returns to the bottom of the chamber.
7. Repeat these steps a total of 10 times. If you start to feel light-headed or dizzy, slow down your breathing and give yourself more time between the deep breaths.
8. After doing the 10 deep breathing exercises, take a deep breath and cough to clear the mucus from your lungs.



# Follow Up with Vascular Surgery

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## Follow up appointments

- You will be seen 4 to 6 weeks after surgery.
- Another visit will be scheduled 1 year after your surgery date. At that time if there are no concerns, you will only need to follow up once each year.
- Ask your surgeon at your follow up visit when imaging will be done, such as a CT scan. Most often, your surgeon will want to do an ultrasound every 1 to 2 years after your surgery.

## Call if you need to reschedule

If for some reason you are not able to keep your appointment with your surgeon, please contact us at 614-293-8536. We can make other arrangements for you to have imaging and follow up.





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