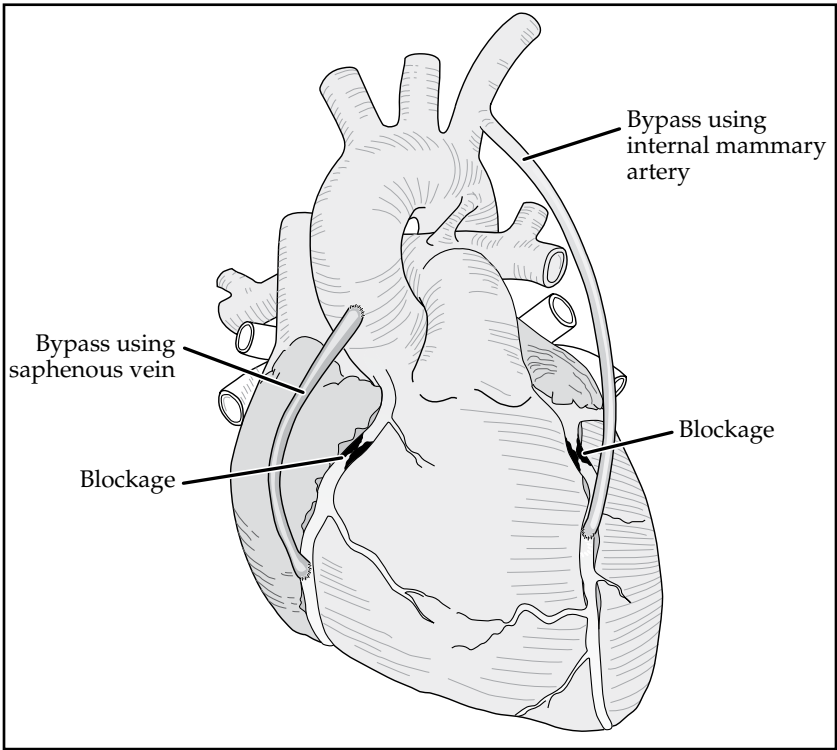


Heart Surgery



Allina Health



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The doctor uses a blood vessel to make a path for blood to flow around the blockage.

Heart Surgery

Your heart pumps oxygen-rich blood throughout your body. When the arteries, which carry blood to the heart muscle, become blocked with plaque (fatty deposits), your doctor may want you to have heart surgery.

You will be taken to the operating room where you will get anesthesia to put you to sleep. During heart surgery you will be connected to a heart-lung machine. The *lung* portion of the machine supplies oxygen to your blood. The *heart* portion of the machine pumps blood throughout your body.

The two most common types of heart surgery are coronary artery bypass and heart valve repair or replacement.

- **Coronary artery bypass:** Bypass surgery is done when plaque blocks the coronary artery. During bypass surgery your surgeon will take a vein from your leg or an artery from your chest wall to bypass (go around) the blockage. By bypassing the blockage, blood is able to flow to your heart muscle.
- **Heart valve repair or replacement:** Valve repair or replacement is done when any of the heart's four valves become damaged. These valves let the blood flow into and through your heart's four chambers. Your heart has to work harder to get blood to the body when the valves are damaged. When medicine cannot correct this problem, heart valve surgery is needed. Your surgeon will either fix the damaged valve or replace it.

How Surgery is Done

There are different ways that heart surgery can be done. Your doctor will talk with you about how your surgery will be done.

- Minimally invasive heart surgery is performed through small incisions (cuts) on the side of the chest. There are usually four to five incisions made that are each 3 to 5 inches long. Traditional heart surgery uses a longer incision down the center of the chest.
- Robotic heart surgery is a type of minimally invasive heart surgery. A surgeon uses a special computer to control surgical instruments with robotic arms.

Benefits

The benefits of minimally invasive and robotic heart surgery may include:

- smaller incisions and scars
- less chance of infection
- decreased hospital stay
- decreased recovery time
- return to normal activities faster.

Preparing for the Hospital

While you wait for surgery (it may be days or weeks), you can get a good start on your recovery. Follow these guidelines:

- Eat well. Your body will need vitamins and protein to speed healing.
- Rest. Do not let yourself get too tired before surgery. The more rested you are, the stronger you will be.

- Try to stop using tobacco. Tobacco makes your heart and lungs work harder than they should. This will make your recovery more difficult.
- Exercise. Routine exercise, as OK'd by your doctor, will help you relieve stress and help strengthen your body. Stop any exercise if you feel signs of your heart problem and call your doctor right away.
- A day or so before your surgery you will go to the hospital as an outpatient. During this visit, your health care team will teach you about your surgery and recovery.

Call your doctor if you have any questions about the above guidelines.

Food and Liquid Directions Before Surgery

These directions are based on your scheduled arrival time. Not following these directions could mean your procedure will be delayed or canceled.

Alcohol and tobacco: 24 hours

- Do not drink any alcohol 24 hours before your scheduled arrival time.
- Do not smoke, vape, use chewing tobacco or use any other tobacco products up to 24 hours before your scheduled arrival time.

Solid foods: 8 hours

- Eat up to 8 hours before your scheduled arrival time.
 - Eat light meals such as oatmeal or toast.
 - Do not eat foods that are heavy or high in fat such as meat or fried foods.

Clear liquids: 2 hours

- Drink only clear liquids up to 2 hours before your scheduled arrival time.
 - Drink water, fruit juice without pulp, black coffee, clear pop or tea.
 - Do not have milk, yogurt, energy drinks or alcohol.

Medicines

- Take your medicines as directed with a small sip of water.
 - Talk with your cardiologist if you have diabetes or if you take warfarin (Jantoven®).

Preparing for the Surgery

- You will meet the staff members who will take care of you. These may include the anesthesiologist, cardiovascular care unit nurse and social services.
- You will sign a consent form for the surgery.
- Some tests are necessary before surgery and may include blood work, a chest X-ray, urine test, an electrocardiogram (EKG), vein mapping and spirometry.
- You will shower and then use a cleansing cloth with a special antiseptic solution the evening before and morning of surgery. The surgery site(s) will be clipped the day of surgery.
- You will remove any dentures and glasses or contact lenses.
- All jewelry (including body piercings) must be removed before surgery and should be left at home. If you are unable to remove a ring, special equipment will be used to cut the ring.

- You will go to the pre-anesthesia room where the anesthesiologist will connect special intravenous (IV) lines which will let your body be monitored during and after the surgery.
- Your family will be taken to the Surgical Waiting Room.

Recovering at the Hospital

- You will be taken to your room where a nurse will watch you closely. You will be connected to tubes and machines that monitor you.
- Your family will be able to visit while you are in the intensive care phase. The nurse will talk to you and your family about the machines and what they do. You will stay in the intensive care phase until your condition is stable.
- As your body heals, the tubes and machines will be taken away and you will begin to increase your activity.
- Cardiac rehabilitation staff members will guide you in progressive exercises.
- As your healing progresses, you will receive information on how to care for yourself at home.

After Heart Surgery Questions and Answers

Incision and other care

How will my incision heal?

You may notice swelling in the incision on your leg. This lasts about 3 weeks to 3 months after surgery.

- Keep your leg elevated (raised) as much as possible.
- When elevating your legs, use 3 to 4 pillows.
- Try to keep your ankles above your knees and your knees above your hips. This helps extra fluid in your legs get reabsorbed.
- If you have a swollen area at your chest incision, it will usually disappear in 6 weeks to 3 months.

Tip

After surgery, you may hear popping and clicking sounds in your chest. These sounds are caused by cartilage between your ribs. If you hear this, avoid doing arm exercise and be careful with your arm movements. If you feel grating of the sternum in the middle of your chest, call your surgeon.

I am worried about an infection in my incision. What should I watch for?

Call your doctor if you have concerns about incision care or show any of these signs:

- a temperature higher than 101 F
- tenderness or redness around incision
- increased evidence of pus-like (thick, creamy) drainage.

Do I need to see my primary care provider?

It is important to see your primary care provider after you leave the hospital. Some appointments will be made for you and others you may need to make from home. If the appointments are not already made, please make them. Your primary care provider needs to know that this appointment is for a check-up after surgery.

Tip

Wash your incision every day with a mild soap and water to help prevent infections.

Tip

Weigh yourself every day and keep a record. Call your health care provider if you gain 3 pounds in 1 day or 5 pounds in 1 week.

What if I miss a dose of medicine?

Take your medicine on a routine schedule. If you miss a dose **do not** take twice as much the next time. Resume your schedule with the next dose.

Angina

How will I know if I am having angina or just incisional pain?

Angina will likely be similar to the chest pain you had before surgery. This may feel like indigestion, a sharp and/or burning pain, an ache or numbness that begins in or spreads to your neck, jaw, throat, shoulder or back of your arms.

Incisional pain is more constant. It occurs when you move suddenly or change positions. It can be relieved with pain medicines prescribed for you or by using pain relief measures that you used when you were in the hospital. If your pain continues and you are having difficulty deciding if your pain is incisional or angina, call your doctor.

Should I take nitroglycerin if I am having angina? What about calling 911?

If you feel symptoms of angina, follow these steps unless your health care provider has given you other instructions:

- Take one nitroglycerin tablet or use one nitroglycerin spray. Sit for 5 minutes.
- If the angina goes away, rest for a while, then continue your normal routine.
- **If the angina does not go away or gets worse, call 911 right away. Do not delay. Do not drive yourself to a hospital emergency room or urgent care.**

Home activities

I hear it is hard to sleep when you get home from the hospital. Any suggestions?

Shorten your daytime naps as you recover. Use relaxation activities before you go to bed, such as reading, listening to music or having a light snack. Check with your pharmacist or doctor for the name of an over-the-counter sleep medicine if you continue to have difficulty sleeping. Alternate opioid pain medicines with Tylenol® during the day.

What if I am constipated?

Increase the fruits and vegetable servings in your diet. Eating foods higher in fiber can also help your bowels. Try prune juice as well. Check with your pharmacist for a mild over-the-counter laxative or supplement.

Tip

Tips for sitting and standing up from sitting:

- Do not sit with your legs crossed.
- Sit up straight with your knees together and your feet flat on the floor. Keep your arms relaxed.
- If your leg with the incision is stiff, it will be easier to sit down by putting the incision leg slightly in front and having the back of the other knee touching the seat of the chair. Then tilt your hips forward as you bend your knees and sit on the front one-third of the chair. Scoot back into the chair.
- To stand from a seated position, cross your hands across your chest or pillow. Rock back and forth a couple of times, leaning forward to come to a standing position.

Can I take a bath?

Shower every day with any mild antibacterial, non-perfumed soap. Turn your back on the spray of the water. A tub bath is not recommended until your incision are completely healed and no scabs are present, usually about 2 to 4 weeks.

How long before I can lift more than 10 pounds?

The 10 pound lifting restriction varies. In general, most doctors restrict you for 4 weeks to 3 months. Ask your doctor to recommend what is right for you.

Can I climb the stairs when I go home?

You may, unless you have other orthopedic limitations. However, during your first 2 weeks after you leave the hospital, limit the number of times you climb the stairs each day.

When can I drive?

Check with your surgeon for instructions on when you can drive. It will depend on how quickly your breast bone (sternum) is healing. Do not drive until you are no longer taking a prescription pain medicine and when your incision is comfortable enough to let you step on the brake quickly.

When can I resume sexual activity?

You can become sexually active again as soon as you are comfortable enough to tolerate activity equal to climbing one to two flights of stairs. There is no danger to your heart. During sexual activity, do not assume a position which bears weight on your arms, which causes pressure to your sternum.

Call your doctor if you have any of these symptoms:

- a rapid heart rate or shortness of breath that lasts more than 4 or 5 minutes after intercourse
- chest pain during or after intercourse
- feelings of extreme fatigue the next day.

Can I walk outside?

You may walk outside if the weather is good and sidewalks are in good condition. Until you feel comfortable, it is a good idea to have someone go with you for the first few weeks.

Can I ride my bike?

You should not ride outside for 6 to 8 weeks. A stationary bike without arm components is acceptable.

I know I need to increase my activity, but how will I know if I am doing too much?

As you exercise, try to be aware of your body's response. Signs that you are doing too much may include:

- dizziness or lightheadedness
- nausea and vomiting
- breaking out in a cold sweat
- having shortness of breath, that makes conversation difficult
- feeling extremely exhausted or unusually fatigued
- feeling that your heart is suddenly racing or pounding
- feeling pain or pressure in your chest, teeth, arm, jaw, ear, neck or between your shoulder blades.

Which activities should I avoid?

Check with your surgeon for when you may resume these activities: driving, golf, swimming, tennis and other racquet sports, softball and baseball, chopping wood, shoveling snow, mowing the lawn, vacuuming and raking or hoeing.

How should I progress in my activity — how fast should I go?

Begin with shorter walks more often. Use shortness of breath as a guide, being sure you can walk and talk at the same time. Gradually increase the length of time you walk, and cut back on frequency.

Maintain a level of activity for 3 to 4 days, being sure you are not short of breath or extremely fatigued the next day. Then increase your activity level. Follow your plan from your cardiac rehabilitation therapist.

I know I need to change my diet, but nothing tastes good. What should I do?

During the first month after your surgery, it is most important to eat a balanced diet with good nutrition to help your healing and general recovery. Give yourself a variety of healthful choices. Eat small meals often and nutritious snacks, if you cannot manage a large meal.

Your appetite will gradually improve after recovery. After 1 month, concentrate on changing your dietary habits to ensure a heart-healthy diet.

When should I start the outpatient cardiac rehab program?

If cardiac rehabilitation has been ordered, you will start about 7 to 10 days after you return home from the hospital. Someone from your local outpatient cardiac rehabilitation program will call you to set up your first visit.



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