Cardiovascular Surgery
An educational guide for patients undergoing cardiac surgery and their families
Welcome to the cardiovascular surgery unit at UAB Hospital.

We want your stay with us to be as pleasant as possible. If you have any concerns, please notify any of our staff.

This booklet will provide you with information about how we’ll care for you when you have cardiac surgery and how you can take care of yourself once you go home. You’ll need this booklet throughout your hospital stay, so keep it close at hand.

We hope this booklet will help you and your family feel at ease. The nursing staff will refer to this booklet often when they discuss important information with you.
You initially will be taken to the preoperative holding area, which is located on the 5th floor of the North Pavilion. You may be visited again by anesthesia staff.

You will then be taken to the operating room, and the anesthesiologist will give you your anesthesia through an intravenous (IV) line. You’ll fall asleep quickly and will not be able to feel or hear anything during your surgery. Surgery usually takes about four to six hours.

Your family will be shown where to wait during surgery. An electronic status board located in the 5th floor waiting room will keep your family informed of your progress. At least one family member should stay in the waiting room at all times. Please let the patient and family care representative in the waiting room know how to reach someone if all family members must leave.

If your family members have any concerns while you’re in the operating room, they should discuss them with the patient and family care representative.

Your nurse will teach you what you need to know before and after surgery and when you go home. You’ll use this book, along with videos, to help you understand what you need to know.

Welcome to the UAB Cardiovascular Surgery Unit

We are here to take care of you when you have your heart surgery. This booklet will guide you through the preparation, surgery, and recovery process. Your nurse also will be happy to answer your questions.

We start making plans for your discharge to home as soon as you’re admitted, starting with questions about your support system at home. While most of our patients are able to go home with their families caring for them, some patients may need the help of a home health care agency or a referral to a rehabilitation center. If we believe you may need one of these services, we’ll discuss this matter with you and your family and include the social worker and care manager, who can make plans for you to have these services.

If you live alone, you’ll need to ask a friend or relative to help you for the first few weeks. No one should go home alone and try to care for himself/herself without help. If you don’t have anyone to help you, ask your nurse to contact the social worker or care manager.

Your nurse will teach you what you need to know before and after surgery and when you go home. You’ll use this book, along with videos, to help you understand what you need to know.

Preparing for Surgery

Learning more about the procedure | Before your surgery, the surgeon, nurses, and the doctor who will put you to sleep (the anesthesiologist) will talk to you and your family about what to expect. The surgeon also will tell you what time you’ll be going to surgery. After all of these people have visited with you, we’ll ask you to sign a consent form giving your doctor permission to do the surgery.

Getting ready | If you’re being directly admitted to the preoperative holding area on the day of surgery, please refer to the instructions that have been given to you.

For patients admitted to the hospital prior to surgery, nursing staff will help you prepare for your surgery. We’ll clip the hair on your skin from chin to ankles, and you’ll need to wipe down with a medicated cloth the night before surgery after your hair has been clipped.

After you’ve used the medicated cloth, do not apply deodorants, lotions, creams, moisturizers, powders, or makeup. Do not bathe or shower again, as the antiseptic should remain on the skin from the previous night. You also will wipe down with medicated cloths in the morning before you go to the operating room. We want you to brush your teeth, but just rinse your mouth. Do not swallow any water. You won’t be able to eat or drink anything after midnight unless the anesthesiologist tells us otherwise.

We’ll administer medications while you’re in the hospital. Please inform your nurse of any medications you were taking at home.

Valuables | Please give your family all of your valuables and personal things—including jewelry, eyeglasses, contacts, dentures, or partials—since you’ll go to the Cardiovascular Intensive Care Unit (CICU) after your surgery.

In Surgery: What to Expect

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If your family members have any concerns while you’re in the operating room, they should discuss them with the patient and family care representative.
CICU | You’ll go directly from the operating room to the Cardiovascular Intensive Care Unit (CICU). This is a 20-bed unit where nurses are always watching and taking care of you. Your anticipated length of stay in the CICU is one to two days.

When you get to the CICU, you’ll have several small tubes attached to machines, monitors, or containers. You won’t notice this until you start to wake up from your anesthesia. Don’t worry if you can’t move your arms or legs when you first wake up from surgery—the mind and body wake up at different times because of the medicine used to put you to sleep. In a short while, your entire body will be awake. You’ll hear the sounds of equipment and be aware of activity around you.

Family visits | Once you’re transferred to the CICU, the surgeon will meet with your family in a small waiting room outside the unit. After your arrival in the CICU, it will be about one hour before your family can visit.

The CICU has liberal visiting hours. On the first visit, all family members will be allowed to stay for five to 10 minutes. For following visits, only two visitors will be allowed at the bedside. Visitors may swap out as needed, but only two visitors can be at the bedside at any one time. Children under 12 years of age may be asked to wait outside of the CICU. Family members should coordinate these visits with the bedside nurse or charge nurse.

Out of consideration for all of our patients, if you or your family members have had a fever or have come in contact with someone who has had symptoms of the flu such as fever, body aches, cough, or runny nose, please ask the nurse for a mask or consider delaying your visit.

Turn off (power off) all cell phones while in the CICU. Cell phones may interfere with patient monitoring and equipment.

Updates | Nursing staff are allowed to share detailed patient information ONLY with the patient’s next of kin or a designated family member. All other visitors and callers will be given general information on the patient’s status. One person in the family (usually the next of kin) will be allowed to call for information about the patient’s status. It is the responsibility of the designated family member to share with all other family and visitors.

Your designated family member will be asked to provide a password to be used whenever they call for an update. This password allows the nurse to share specific details of your progress with that family member. This password and the name of the designated caller will be placed in the medical record. Your family may call for updates any time except during the hours of 6:00-7:30 a.m. and 6:00-7:30 p.m.—this is a time when nurses and physicians must be free of distractions to provide the best care possible.

The Progressive Care Unit | You will go from the CICU to a nursing unit on the 5th floor of the Spain Wallace Building. When you get to your room, we’ll check your blood pressure, pulse, and temperature and listen to your lungs. Your family can visit once you’re settled in. The hostess in the CICU waiting area will let your family know when you’ve moved to your hospital room. Your family may bring you your gown, pajamas, robe, slippers, and personal care items at this time.

We’ll help you with your bath the first day or two after surgery. We’ll show you and your family how to clean your incisions when you bathe—that way, you’ll feel comfortable cleaning the incisions by the time you go home.

The nurses will tell you when you can shower and shampoo your hair after surgery. Male patients should shave every day with a battery-operated electric razor while they’re in the hospital.

Using electrical devices | You won’t be allowed to hold blow dryers, electric razors, or other electrical items while they’re turned on as long as you have wires coming out of your chest, unless the nurse puts tape or a cover on them. This covering will serve as insulation to your wires. If you aren’t sure if your wires have the proper cover on them, ask your nurse before you use one of these electrical items.

You may go back to using any electrical appliance you want (blow dryers, electric razors, etc.) without any limitations when you go home.

Some of the best ways to help yourself after surgery are to take deep breaths and cough to get out of bed and walk.

Keep your airways open | The nurse will show you how to use an incentive spirometer. After using it, you should take several deep breaths and cough every one to two hours during the day and when you're awake at night. Your family can help you remember when to do this. Using the incentive spirometer, deep breathing, and coughing will clear your lungs and help you keep down fevers. When coughing, remember to hold your pillow to your chest.

Lie on your side when you’re in bed, and turn from side to side every couple of hours. Mucus can collect in your lungs if you lie on your back for long periods of time, which can lead to pneumonia.

Get moving | You’ll be sitting in a chair for at least 30 minutes in the evening on the day after your surgery (Post-op Day 1). You’ll begin walking the day after that (Post-op Day 2). You should walk at least four times a day. A nurse or physical therapist will help you at first; then your family should help you. Slowly increase the distance and frequency of your walks.

Walking will help you in several ways: It helps the soreness go away sooner, it helps prevent blood clots from forming in your legs, and it helps you to cough mucus out of your lungs. Also, walking is the only way for you to regain strength and feel better. The heart is a muscle that gets stronger with exercises such as walking. When the heart gets stronger, you’ll feel better, because the heart is doing a better job of pumping blood through your body.

Pay attention to your pain | After heart surgery, it’s normal to have some pain at the incision site, shoulder, neck, or upper back, depending on how the sternum was opened. We’ll be asking you about your pain—we want you to be comfortable, and we want to know if something is wrong. We have medicine to help take the edge off your pain and keep you as comfortable as possible. You’ll be able to start walking, do your breathing exercises, and get your strength back sooner if you aren’t in severe pain. Your body can heal faster if it isn’t fighting pain.

You may ask the nurse for pain medicine every four hours for the first few days. Ask for pain medicine as soon as the pain starts—don’t wait for it to get bad. It’s harder to ease pain once it has taken hold. We’ll ask you to rate your pain on a scale of 0–10. This helps us to know if the pain medicine is working for you.

To help ease the pain in your chest and shoulders, be sure to use good posture when you sit, stand, and walk and exercise your arms and shoulders when you wake up in the morning and after you take a nap.
**What to Expect As You Recover**

**The incision** | Incisions heal better if they’re left open to the air instead of covered with a dressing. We’ll show you how to clean your incision each morning. By the third or fourth day, you or your family will be cleaning your incisions and getting comfortable with doing that before you go home. We’ll also clean and re-tape your heart wires daily.

You may notice that the skin around the incision itches and looks dry. This is normal. You also may have some puffiness or swelling around your incision, especially at the upper end of the chest incision and at the lower end of the leg incision, if you have one. The swelling will go away slowly and will be gone in three to four weeks.

**Arrhythmias** | Some of our patients will have abnormal heart rhythms called arrhythmias. At least 30 percent of all patients who have heart surgery experience arrhythmias during the first few days after surgery. That is why all our patients have heart monitors. Most arrhythmias are easy to treat, and we’re able to get the heart back into a normal rhythm before the arrhythmia causes any problem. You won’t have to wear a heart monitor after you go home. You may go home on antiarrhythmic medications for one month if you do experience an arrhythmia called atrial fibrillation (A-Fib).

**The heart monitor** | All patients must wear a heart monitor throughout their hospital stay. You must wear it at all times except when bathing. On the day you go home, your nurse will tell you when to remove the monitor before leaving for discharge. Please don’t take this monitor home—the monitor won’t pick up your heart rhythms outside the hospital, so it won’t help you after you leave. We need to keep and clean this monitor for use by another patient after you leave.

**Confusion** | It’s quite common for patients to become confused after open-heart surgery. The confusion may be mild (such as forgetting what day it is) or more severe (not recognizing family members, for example). Sometimes the confused patient may forget why they are attached to IVs, oxygen, or other equipment and try to pull at these devices. They often need constant reminders to leave some of them alone. Luckily, confusion is only short-term, and the patient returns to his or her normal self in only a few days. Patients do not remember being confused.

There are no medications we can give to treat post-operative confusion—it’s something that has to resolve on its own. In the meantime, we ask the family to please be patient when their loved one is confused. It helps the patient if the family stays with them when they are confused, and we ask that one family member spend the night when the patient (if they are out of the ICU) for as long as the confusion continues. Seeing people they know helps the confused patient remain as calm as possible, and seems to help them return to normal more quickly. Also, the family can help remind the patient not to pull at equipment that they should leave alone. Often the confused patient will follow these directions from a family member better than they will from the medical staff.

**Traveling home** | If you’ll be traveling home on a bus, train, or airplane, your family may want to make special arrangements with the ticket agent before discharge so that you can board before the other passengers or ride in a wheelchair between connections. Please let us know if we can help you with any problems or needs. Please let us know at least 24 hours in advance if you have plans to take a bus, train, or airplane home. Often we have to make special arrangements in order for you to be discharged in time to make your ride or flight. It helps us to do that if you tell us about it the day before your discharge.

Most of our patients travel home in a car. It doesn’t matter whether you ride in the front seat or back seat—ride wherever you feel most comfortable. Please remember to wear your seatbelt. The seatbelt will not damage the incision on your chest, and you’ll be much safer if you wear one. If you have a long trip home, you’ll need to stop about every hour to get out of the car, walk around, go to the restroom, and then continue with your ride home.

Under no circumstances should any patient who has had heart surgery drive himself or herself home from the hospital. You should have someone else drive you for at least the first two weeks after discharge.

**Discharge** | Most patients go home five to seven days after heart surgery. Before you go home, your family or caretaker should watch the discharge video.

On the day you go home, your nurse will talk with you about the medicines you’ll take at home. It’s a good idea to write down questions as you think of them so you’ll remember to ask them. Before you go home, the doctor, nurse practitioner, or physician’s assistant will remove your heart wires. Please tell the nurse if the wires have not been removed on the day you go home. You’ll need to stay in bed for one hour and in the hospital for at least four hours after we take out the wires.

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**What to Expect at Home**

**When to Call the Doctor**

You most likely will not have problems after your operation, but if you notice any of the following symptoms, please call your local or referring doctor.

- Extreme fatigue
- Shortness of breath
- Increased swelling in the legs and stomach
- Fever
- Chills
- Redness or tenderness at the incision site
- Drainage from the incisions

We’ll give you phone numbers to call if you have any questions. These numbers will be listed on the discharge papers you’ll take home with you.
Care at Home

Medicines |
- Do not take any medicines that were prescribed before your heart surgery unless you're told to do so by your surgery team or your referring doctor.
- Follow the instructions for your pain medicines carefully. Too much pain medicine can cause problems with your heart or lungs.
- Do not take home remedies or medicines unless your doctor tells you to.
- Do not take aspirin for pain or fever.
- Ask your physician or pharmacist before you take any over-the-counter pain medication.

How to take care of your incisions |
- Your surgical dressings will be removed 48 hours after surgery (24 hours for leg incisions). Once the dressings are removed, it isn’t necessary to cover the incision(s) unless you’re still on the breathing machine or any drainage is present.
- Wash your incision daily after your bath or shower with a special medicated cloth. (This cloth isn’t needed if your incision was closed with a special glue.) Then use a mild, pH-balanced, perfume-free soap, such as Dove or Johnson’s Baby Wash.
- Do not use soaps that are highly perfumed or very oily since they may irritate the skin. Do not use hydrogen peroxide. Do not put ointment, lotion, or powder directly on the incisions until the incisions are healed. It’s OK to put lotion around the incision to stop the drying and itching.
- If you have a leg incision, you may notice that the skin on either side of the incision is lightly numb and that some parts of the incision heal more slowly and hurt more than others do. It’s normal to have drainage from the spot on the leg where the drain tube was removed for up to a month. This drainage is usually dark red or clear and there may be a large amount. The drainage is from the dissolving bruise and is normal. The incision will heal completely over time and the tightness, swelling, and numbness will go away.
- It won’t be necessary to put a dressing or bandage over your incisions after you go home. In fact, the incisions will heal faster if you do not put dressings on them any longer than needed. Call your doctor’s office if you notice a fever of more than 101 degrees or if you see any redness, drainage, or gaping at the incision.

Pain |
You can expect to have some pain around the incision for several months after you get home. Sneezing, coughing, sudden changes in body position, and sitting around for long periods of time can cause pain. This happens because pain starts in the muscle and bone, rather than in your heart. Don’t be surprised if the location and amount of your pain changes from day to day. The popping and cracking sounds you may hear in your chest area are normal and may occur frequently until the chest bone is healed. Six weeks after surgery, you’ll feel much better; after three months, you’ll be well on the road to recovery.

Activity |
After a little while, you’ll probably feel healthier after your heart surgery than you have in many months or years. If you do a little more each day and rest when you get tired, you’ll become stronger and be able to do those things that are important to you.
You should get up each morning at your regular time and get dressed. You may wash your hair at any time. You may walk outdoors at a slow pace, help with light jobs around the house, and go to church or any other place you might enjoy. You also may walk slowly up and down stairs and hills if you don’t feel tired.

Don’t be afraid to move. Remember to use good posture when you sit or stand. Breathe deeply and cough several times during the day to expand the little air sacs in your lungs and get rid of the mucus.

Do not lift, push, or pull anything heavy for three months—it generally takes six to eight weeks for your breastbone to heal. We’ll tell you exactly when to do certain things. It’s a good idea to have someone in your home to help you for the first several weeks after discharge.

Continue to use your incentive spirometer, take deep breaths, and cough on a regular basis after you go home. We recommend that you do this at least five times a day: upon awakening, before each meal, and at bedtime.

Rest |
Plan your day so that you have time to rest. Never let yourself get too tired. Rest every day for at least 45 minutes. If you take a nap, try to sleep before 3:00 p.m. If you nap later than that, you may find that you have difficulty sleeping at night.

Rest for a few minutes after eating. A lot of sleeping and sitting may cause your muscles and bones to hurt. Too much sitting is not good for your circulation. If you notice that your neck, shoulders, and chest muscles are tight, do light exercises to relax your muscles:

- Slowly raise your arms above your head as far as you can reach, and then lower them to your sides.
- Lift your shoulders up and down and relax them.
- Raise your arms out to your sides to shoulder level, bring them together, and then lower them.

Stress and strain |
It’s better for your heart if you don’t have too much physical or emotional stress. Stress makes your blood pressure go up and makes your heart work harder.
- Take it easy in very hot or cold temperatures.
- Do not drink or eat too much.
- Do not strain when having a bowel movement. Eating more fruits and vegetables can help you remain regular. Ask your doctor to prescribe a stool softener or laxative.
- Do not smoke cigarettes, pipes, or cigars, as smoking stresses the heart and may cause problems with your heart and blood vessels.

Reducing the Amount of Sodium (Salt) in Your Diet

Your health-care provider will tell you how much sodium you can have in one day. Most of the time, you’ll need to stay on a restricted diet of no more than 4,000 mg a day.

A few tips can help you reduce sodium in your diet:

- Stop adding salt to the food that you are cooking or eating.
- Buy fresh or frozen meats or fish. Do not use processed meats. Do not use meats with sauces or marinades.
- Eat fresh or frozen fruits and vegetables.
- Avoid canned foods.
- Try to avoid fast foods. Ask for the sodium content of your food when eating out.
- Read food labels to help limit your salt intake.

Restricting the Amount of Fluid You Drink

It isn’t wise to drink a lot of fluids for the first two weeks after open-heart surgery. Fluid limits are different for everyone. Usually, fluids should be limited to 1 ½–2 liters a day. Drinking more than this may lead to swelling and excess fluid, which puts a strain on the heart. After the two weeks have passed, consult your physician for further instructions regarding your fluid restriction.

How Much Is Too Much?

- 2 liters = 2,000 cc or ml; 8 cups; ½ gallon of milk or a large soda bottle
- 1 ½ liter = 1,500 cc or ml; 6 cups
- 1 liter = 1,000 cc or ml; 1 quart; 4 cups
- 1 cup = 8 ounces

A 2-liter or 2,000-cc fluid restriction is equal to about 8 cups of water.

A 1-liter or 1,000-cc fluid restriction is equal to about 4 cups of water.

Important note: Some foods count as fluids and should be considered as part of your fluid restriction. These include ice, popsicles, jell-o, sherbet, ice cream, yogurt, applesauce, soup, and pudding.

Examples of fruits with high fluid content:

- 1 ¼ cup of watermelon or cantaloupe = 6 fl. oz. (¾ cup)
- 1 orange or ½ grapefruit = 4 fl. oz. (½ cup)

Healthy Eating

Preventing Infection

It is very important that you keep from getting an infection. Germs may cause infection that can damage valves or other parts of the heart. You can get germs several different ways:

- Germs from your mouth may get into the bloodstream through the gums if you brush your teeth too hard or have dental work.
- Some tests and operations can damage the tissue lining in other parts of the body.
- Germs in boils or on broken skin also can cause problems.

Make sure to keep your fingers and hands away from the incision site to prevent germs from entering the body.

Take a bath or shower every day and use a soft-bristled toothbrush to brush your teeth and/or gums after every meal.

Buy a new toothbrush if you get an infection. Germs can live on the old toothbrush and cause another infection. One of the best ways to prevent an infection is to wash your hands each time you clean your incisions or put anything into your mouth.

Be sure to have routine check-ups from your doctor and dentist. Wait at least three months after your surgery before you have any dental or surgical procedure done. Tell every doctor or dentist who takes care of you that you’ve had heart surgery. Depending on the type of surgery you had, you may need to take antibiotics before you have a dental procedure or surgery.

Follow up with your doctor

Your surgeon and his staff will tell you whether or not you’ll need to come to see them for follow-up after you’re discharged. If you do come back for clinic visits, you’ll only see your surgeon or staff for one or two visits. You’ll still need to have long-term follow-up visits with a cardiologist—preferably the one that sent you here for heart surgery.

After you get home, you should see your local doctor—preferably the doctor who sent you here for heart surgery—so they can listen to your heart and lungs. For most patients, we suggest you schedule the appointment with your local doctor within two weeks after you go home. However, you’ll need to see your doctor on the first or second day after discharge if you’re taking a blood-thinning medicine. We’ll tell you if you’re taking a blood-thinning medicine. We also suggest that you wear a medical alert ID bracelet if you’re taking a blood thinner.

Within a month of discharge, your surgeon will send a complete report of your operation and condition in the hospital to your local doctor. It’s OK to go ahead and see your local doctor even if the report has not yet come.

How Much Is Too Much?

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Examples of fruits with high fluid content:

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- 1 orange or ½ grapefruit = 4 fl. oz. (½ cup)
Cholesterol is a fat found in the bloodstream and the body's cells. Too much cholesterol can cause a buildup in the walls of blood vessels and clog your arteries. It can lead to coronary artery disease and worsen your heart condition. Limiting your cholesterol intake will help you manage your heart condition.

Limiting your fat intake also can help manage your heart condition. Saturated and trans fats are most harmful and should be limited. These fats can raise blood levels of cholesterol, which can increase your risk of heart attack and coronary artery disease. Monounsaturated fats are better to eat and can help bring cholesterol levels down. Examples of monounsaturated fats are nuts and seeds, olives, and canola, peanut, and olive oils.

### UAB EatRight Recipe: Crispy Chicken Fingers

**Ingredients:**
- 1 pound skinned, boned chicken breasts, cut into 18 strips
- 1/4 cup low-fat mayonnaise
- 2/3 cup instant potato flakes
- 1/4 cup grated Parmesan cheese
- 1/2 teaspoon garlic powder
- 1/8 teaspoon paprika

**Instructions:**
1. Combine chicken strips and mayonnaise in a shallow bowl and turn chicken strips to coat well.
2. Combine potato flakes and next four ingredients in another shallow bowl.
3. Dredge chicken strips in potato flake mixture and place on baking sheet coated with cooking spray. Bake at 375° for 18 minutes and broil 3 inches from heat (with electric oven door partially opened) for 3 minutes or until chicken is lightly browned and crispy.

**Yield:** 6 servings

**Per serving:** Calories 142, fat 4g, sat fat 2g, protein 18g, carbohydrate 7g, fiber <1g, cholesterol 45mg, sodium 308mg
As early as one week after discharge, you’ll receive a referral to one of UAB’s cardiopulmonary rehabilitation programs, depending upon the kind of surgery you’ve had. A cardiac rehabilitation specialist will speak with you prior to discharge.

Cardiac rehabilitation is an outpatient program of supervised exercise and education that helps many patients with heart disease recover faster and return to full and productive lives. Your blood pressure, heart rate, and responses to exercise will be watched closely. At the end of the program, an exercise plan will be outlined for you.

Important note: Talk to your health-care provider before starting any exercise program.

Physical Conditioning

The exercises in this booklet are meant for those people who will be exercising at home. If you go to a cardiac rehabilitation program, you may be told to do exercises that are more strenuous than the ones shown in this booklet. This is fine; the rehabilitation program staff is monitoring you while you exercise and is trained to know exactly how much you should exert yourself.

If you exercise at home, stick with the exercises in this booklet for the first three months after surgery to avoid overexerting yourself. Do not progress to more strenuous exercises without first checking with your doctor.

Marching in place

Sit on a chair. March in place, raising your knees high. Repeat 10 times at first, then gradually progress to 20 times.

Knee extension

Sit down. Straighten your left leg and slowly lower it back to the floor. Repeat with your right leg. Repeat 10 times with each leg at first, then gradually progress to 20 times with each leg.

Shoulder touches

Begin with your arms over your head. Keep your elbows close to your ears, reach back and touch your shoulders, then return to the starting position. Repeat 10 times at first, then gradually progress to 20 times.

Diagonal arm exercises

Begin with your arms down by your sides. Reach around and grab your shoulders, then return to the starting position. Repeat 10 times at first, then gradually progress to 20 times.

Walking

Begin with the speed and duration of walking you were doing while in the hospital. Start out slowly and gradually build up your walking time, speed, and distance as you become stronger. When you get home, you should walk 2 to 4 times daily, as you did in the hospital, until you can walk 10 minutes without stopping each time. When you reach that goal, you can begin walking twice a day, continuing to build your walking time until you can walk 30 minutes without stopping. We’ve provided sample walking plans in this booklet to help guide your progress.

Half chair squats and full chair squats

Stand and hold onto a stable object such as the kitchen counter. Bend your knees slightly, as if to sit down, then stand up straight. Repeat 10 times at first, then gradually progress to 20 times.

Side neck bends

Bend your head to the side, as if to touch your shoulder with your ear. Then bend your head to the other shoulder. Work slowly. You can do this exercise while sitting, if you prefer. Repeat 10 times, then gradually progress to 20 times.

Shoulder shrug

Breathe in deeply while bringing your shoulders up to your ears. Then breathe out, relax, and let your shoulders fall back to their resting position. Repeat 10 times, then gradually progress to 20 times.

Important note: Talk to your health-care provider before starting any exercise program.

The long-term goal is to include at least 30 to 60 minutes of moderate-intensity physical activity five to seven days a week. To start, choose a time and intensity level that’s comfortable for you. As you’re able, gradually increase the time and frequency of your walks until you reach your physical activity goal.

Level I

Day Comfortable walking Times a day
1 5 minutes 3
2 7 minutes 3
3 10 minutes 2
4 12 minutes 2
5 13 minutes 2
6 15 minutes 2

When you’re able to walk comfortably for 15 minutes, you may move to Level II. Start each workout with a five-minute warm-up and end with a five-minute cool-down of slower-paced walking.

Level II

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Physical Conditioning
The information in this booklet tells you how to recover from your heart surgery. However, you still need to continue to take care of your heart after you have recovered. Studies have shown that people who continue to take care of their heart after surgery are much less likely to have problems later.

A few things you can do to take care of your heart, even after you’ve recovered from the surgery:

- Stop smoking.
- Continue to eat a heart-healthy diet.
- Continue to exercise on a regular basis. Walking is best for most people, but you may talk to your doctor about other exercise options if you wish.

**Where can I walk?**

You can walk anywhere that’s easy, close, and safe for you. Plan where you’ll walk before you go. Think of flat areas where you can walk comfortably, like shopping malls, school tracks, or streets near your home. Pick a time and place that’s convenient for you. Plan to walk with someone. If you can’t, be sure someone knows when and where you’re walking.

**When should you not walk?**

Do not walk if you’re sick or have a fever. Wait 24 hours after your temperature is normal before increasing your activity.

Do not walk outdoors if the weather is too hot or too cold. Find a place (like a shopping mall) to walk when the weather isn’t good.

Do not walk right after you eat a meal. Your heart is busy pumping blood needed to digest your meal. Wait to walk at least one hour after eating.

If you miss more than three days of walking, decrease your time and begin again slowly. This is a plan for life, so don’t worry about catching up too soon.

**What do I wear?**

Wear loose-fitting clothes. You should have comfortable shoes that fit well. Well-cushioned shoes like athletic shoes work well. Wear socks to give a little more cushion and help prevent blisters.

**Why choose to walk?**

It’s easy. It’s cheap. It’s safe. It improves your health. But if you don’t like to walk or can’t walk, choose any activity that lets you move.

**How long should I walk, and how long should I walk?**

It depends on how active you are now and your health condition. Just increasing your daily activities will improve your health. We’ll help you choose a level that’s right for you.

**Can I talk while I walk?**

You should be able to walk and talk at the same time. If you can’t talk because you’re gasping for air, you’re walking too fast. If you can talk as easily while walking as you can when you’re still, you should try walking a little faster. You should feel comfortable while walking.