

Swedish Cardiac Surgery: Navigation Guide

Welcome to Swedish

We welcome you and your family to the cardiac-surgery program at Swedish, where you will find the experienced professionals, the state-of-the-art technology and the high level of personal care that leads to the best possible outcomes.

Cardiac surgery is a cornerstone of the Swedish Heart & Vascular Institute — the region’s most comprehensive source for advanced cardiovascular care. Our nationally recognized heart surgeons work closely with other cardiac specialists to annually improve the health of thousands of patients. State-of-the-art surgical techniques complement operating suites that are among the nation’s most advanced. Our cardiac-surgery teams are experienced, highly trained and totally focused on providing an exceptional level of patient care.

Swedish also takes pride in providing the individual attention, as well as the compassion, that helps put patients and their loved ones at ease — and smoothes the way for a cardiac-surgery experience that is as free of stress and anxiety as possible.

As you read this *Cardiac Surgery Patient Guide*, which highlights the many aspects of cardiac health and cardiac surgery, please make note of any questions or concerns. We are here to provide you with answers and solutions.

Thank you for trusting your heart to Swedish — for letting us be a partner in your return to better health.

Your Swedish Cardiac Surgery Team

The man featured on the cover of the booklet is not an actor; he is an actual Swedish cardiac surgery patient returning to one of his favorite pastimes after surgery — we will do our best to do the same for you.

Hospital Information

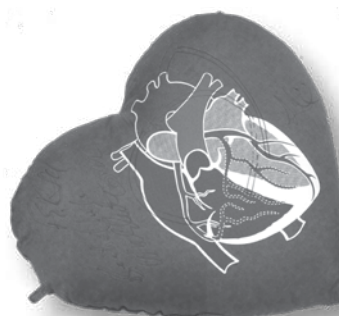


Swedish Cardiac Surgery Important Phone Numbers

Swedish Cardiac Surgery Office	206-320-7300
Swedish Cardiac Surgery Intensive Care Unit.....	206-320-2222
Swedish Cardiac Surgery Telemetry Unit (4 East)	206-320-2430
Swedish Cherry Hill Campus Information	206-320-2000
Swedish Visiting Nurse Services	206-386-6602
Inn at Cherry Hill Campus	206-320-2164
Outpatient Pharmacy at Cherry Hill Campus	206-320-2699
Care Coordination (Discharge Planning)	206-320-2760
Health Information Management (Medical Records).....	206-320-3850
Swedish Cardiovascular Wellness Services	206-320-3300
Mended Hearts	1-888-432-7899

Affiliated with the American Heart Association, Mended Hearts is an international volunteer support group for heart patients, families and their caregivers. Members are specially trained to visit heart disease patients and family members to provide encouragement and support.

Swedish Cardiac Surgery
 1600 E. Jefferson St., Suite 110
 Seattle, WA 98122
T 206-320-7300
F 206-320-4698



This booklet may be accessed online at www.swedish.org.

Hospital Information

Hospital Room Choices

All patient rooms at the Swedish/Cherry Hill campus are private rooms.

Telephones

All patient rooms are equipped with a telephone.

While you are in the intensive care unit you or your spokesperson will provide a password that will be used to obtain information about your medical condition. Only your family members or friends with the password will be able to obtain information about your medical condition. If you are able to speak, the call may be forwarded directly to your room for you.

On the telemetry unit, your family and friends can call you directly at the number shown on your phone.

Cell Phones and Wireless Devices

The use of cellular phones and wireless computer devices is discouraged in patient care areas within the hospital as these devices may interfere with medical equipment.

However, brief use of these devices while on the telemetry unit is permitted. While using a cell phone or wireless device try to be at least 10 feet away from any medical equipment. The hallways and waiting rooms are the best places to use these devices.

Television

Your room has a color television with 19 basic cable TV channels, including the Swedish Health Channel.

The Swedish Health Channel includes more than 100 different health-education videos, with topics ranging from heart disease to breastfeeding to smoking cessation. Patients can access the channel 24 hours a day from the TV in their room.

Shuttle Service

A free shuttle service is available to transport patients and visitors between Swedish's Cherry Hill and First Hill campuses. The shuttle runs approximately every 20-40 minutes and leaves from the Cherry Hill campus and the First Hill campus main entrances. The first shuttle run leaves the First Hill campus at 7 a.m. and runs until 5:30 p.m.

Notice of Privacy Practices (HIPAA)

Confidentiality is important to Swedish Medical Center. We abide by the Federal Health Insurance Portability Accountability Act (HIPAA) privacy standards. These standards protect the privacy of your medical information and limit who can access your information. A copy of these standards is available upon request at the registration desk.

Food

The Dining Room, located on the 1st floor of the hospital, is open daily from 6:30 a.m. to 7:30 p.m.

The Jefferson Tower Deli, located on the 1st floor of the Jefferson Tower, is open from 6:30 a.m. to 3:30 p.m., Monday through Friday.



Espresso is available at the Dining Room or the Starbucks located at our main entrance.

For patients and family members, Á La Carte Dining Service offers you the option to order from a menu, much like a hotel's room service. It's available from 7 a.m. to 8 p.m.

Reflection Room and Spiritual Care

Find a moment of quiet solitude in our Reflection Room, located on the main floor next to the gift shop. Also, Spiritual Care chaplains are available for patients and families who are interested in emotional support. To request chaplain services before 5 p.m. on weekdays, call 206-320-2288. After 5 p.m. and on weekends, call 206-386-6000.

Gift Shop

The Cherry Hill gift shop is located on the 1st floor between the main entrance and the Dining Room.

Parking

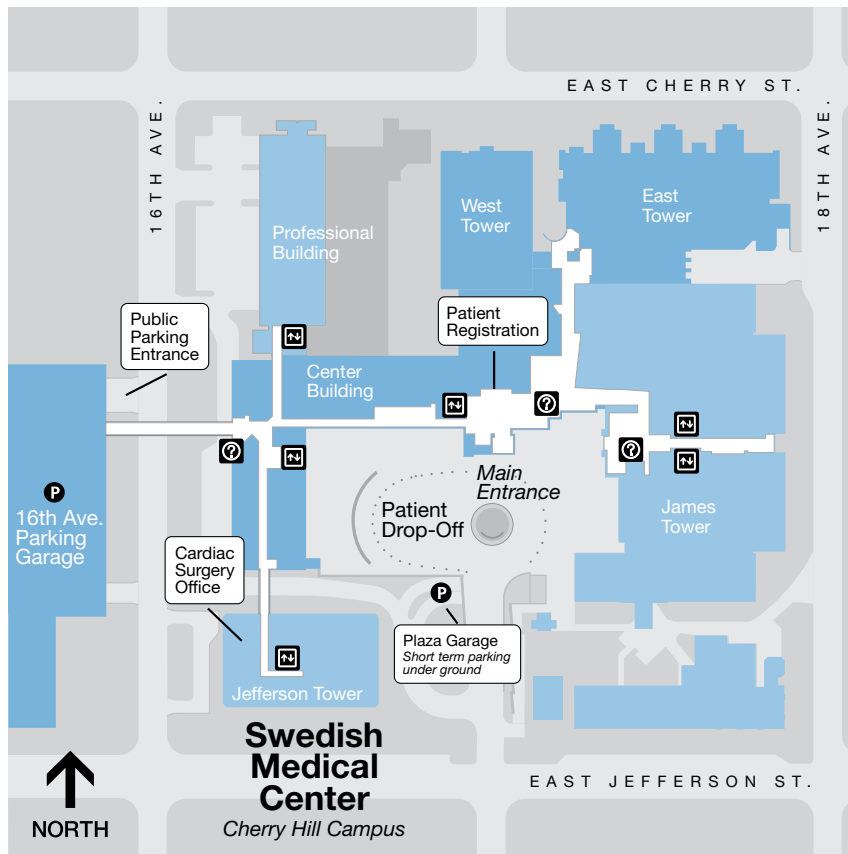
Parking hours and rates are subject to change without notice. Parking rates average \$3 to 4 per hour depending on the duration of your parking. The 16th Avenue Garage offers a patient parking daily rate of \$10 for long-term parking.

Plaza Garage

- Short-term parking is available in the Plaza Garage
- Enter from the main driveway on Jefferson Street off of 17th Avenue
- Hours: 24 hours a day

16th Avenue Garage

- Short-term and long-term parking is available in the 16th Avenue Garage
- Enter from 16th Avenue between Jefferson and Cherry streets
- The 16th Avenue Garage accepts only cash — when the garage is attended
- Hours: 24 hours a day
- Flat rate of \$8 applies when garage is unattended — cash or credit/debit card
- Attendant present: 7 a.m. to 11 p.m., Monday-Friday, 9 a.m. to 5 p.m., Saturday; unattended Sunday



Accommodations

The Inn at Cherry Hill

A limited number of visitor's sleeping facilities are available on the Cherry Hill campus, 5th floor, at the Inn at Cherry Hill for \$65-\$75 per night.

To access the Inn at Cherry Hill, take the East Tower Cherry Street Elevators to the 5th floor. These elevators are located close to the Dining Room.

The Inn at Cherry Hill offers:

- 29 rooms with private bathrooms, television and phone
- Shared common kitchen area
- Dining room
- Laundry room
- Complimentary coffee

Financial assistance may be available if needed. Contact Care Management at 206-386-3609.



Local Hotels

Many local hotels are available close to the hospital. A few are listed below for your convenience.

Silver Cloud Inn

Web site: www.silvercloud.com
1100 Broadway Seattle, WA 98122
Phone: 1-800-590-1801

The Baroness Hotel

Web site: www.thebaronesshotel.com
1005 Spring Street, Seattle WA 98104
Phone: 206-583-6453

Inn at Virginian Mason

Web site: www.innatvirginiamason.com
1006 Spring Street, Seattle, WA
Phone: 1-800-283-6453

Homewood Suites by Hilton

Web site: <http://homewoodsuites1.hilton.com>
1011 Pike Street, Seattle, WA 98101
Phone: 206-682-8282



Quitting Tobacco

Swedish's mission is to improve the health and well-being of each person who comes to the medical center. Part of this commitment includes providing a safe and healthy environment. To that end, Swedish is now a smoke-free campus; smoking is not allowed anywhere — inside or out — on Swedish property, owned or leased. Smoking is permitted only in public areas, and state law requires that a smoker be at least 25 feet from any entrance, window or air-intake system. State law also prohibits smoking in a private vehicle while the vehicle is in any public garage.

Swedish Medical Center Policy

Nurses will offer nicotine replacement therapy and other smoking cessation resources to patients.

Educational video

An educational video is now available to patients on closed-circuit television at the First Hill and Cherry Hill campuses. The video provides patients and their families with information about the health consequences of smoking, benefits of not smoking and suggestions for how to stop smoking.

Resources

I Quit: Smoking-Cessation Program

Phone: 206-320-3300

This one-on-one, individualized eight-week program is offered through Swedish Heart & Vascular Institute's Cardiovascular Wellness Services. This program includes:

- Regular discussions about new skills and behaviors as well as medication options
- A smoking-cessation education workbook that covers a wide range of topics
- Homework assignments that participants can complete at their own pace
- An individual cardiovascular-risk assessment
- Follow-up support calls after the program has ended

Retail cost is approximately \$300, but your insurance may cover it.

American Lung Association – Washington Chapter

Phone: 1-800-732-9339

Web site: http://www.alaw.org/tobacco_control/quit_smoking_today/

The Washington State Tobacco Quit Line

Phone: 1-877-270-7867

Smoking cessation materials, counseling and support.

Web site: www.quitline.com

Why Should You Quit Smoking?

Time After Quitting	Benefits to YOU
20 minutes	Heart rate decreases
8 hours	Carbon monoxide level in your blood drops to normal Oxygen level increases to normal
24 hours	Chance of heart attack decreases
48 hours	Nerve endings start to regenerate Sense of smell and taste improve
2 weeks to 3 months	Risk of heart attack drops Lung function improves Circulation improves
1-9 months	Coughing, sinus congestion, fatigue and shortness of breath decrease
1 year	Risk of coronary artery disease is half that of a smoker's
5-15 years	Stroke risk is reduced to that of a nonsmoker
10 years	Risk of lung cancer is half that of a smoker's Risk of cancers of the mouth, throat, bladder, esophagus, kidney and pancreas decrease Ulcer risk decreases
15 years	Risk of coronary artery disease equals that of a nonsmoker's Risk of death returns to the level of people who have never smoked

Perhaps the question is, why haven't you?

Patient Safety Plan

Swedish strives to continuously improve patient safety and quality of care. We ask you to help us implement our patient safety plan.



Be an active participant in your health care.

Take part in all decisions about your treatment.

Ask a trusted family member or friend to be your advocate while you are too ill or otherwise unable to participate yourself.

Keep a record of your own health history. You have the right to obtain copies of any of your medical records and may do so by contacting Health Information Management at 206-320-3850. You will need to complete an *Authorization for Disclosure of Health Information* form to obtain your records. This form is readily available at the hospital.

Speak up if you have questions or concerns

You have the right to question anyone who is involved in your health care.

Write down questions to ask for the next time the doctor or other members of your health-care team visit.

Identify Yourself

Wear your hospital name band at all times.

Know which procedures or tests you are going to have and why.

Don't hesitate to inform a health-care provider if you think he or she has confused you with another person.

Protect Yourself

Remind health-care providers and visitors to wash or "gel" their hands prior to direct contact with you. This helps prevent the spread of infection in hospitals.

Medications

Bring a list of all medications with you, including over-the-counter and herbal, when you are admitted to the hospital.

Let the doctor or nurse know if you have any allergies or side effects to medications, food, or materials (e.g., tape, latex).

Make sure your name band is checked before the administration of any medications in the hospital.

Your nurse should tell you what hospital medications you are taking and why.



Preparing For Surgery



Preparing for Surgery

1-2 Weeks Before Surgery

- If you are a smoker, quit smoking at least 4-6 weeks prior to surgery. This will help your lungs recover more quickly after surgery and decrease your infection risk.
- If you are scheduled for valve surgery, obtain a clearance letter from your dentist stating that you are free from infection before surgery. This letter must be included in your patient records.
- Purchase or borrow the following items needed after surgery:
 - A scale to monitor your weight daily after surgery
 - A thermometer to monitor your temperature daily after surgery
 - A heating pad to relieve muscular pain
- Consider bringing some form of music player (iPod, CD player, etc.) with you to the hospital, along with some of your favorite music. This can help you relax before and after your surgery and help you “tune out” the hospital environment.
- Women may want to purchase a front-closing sports bra, particularly if they have large breasts. This will reduce the stress on your incision after surgery.

Advance Directives

Consider completing advance directives prior to your admission. Advance directives are legal documents that communicate your medical treatment wishes to your doctor if at anytime you are unable to express them yourself. You do not need a lawyer to complete these forms; however, they will need to be witnessed.

We highly recommend completing these forms prior to your surgery. Not only do they ensure that your wishes are carried out, but they also greatly reduce the stress level on families who need to make tough medical decisions for a loved one.

There are two forms of advance directives:

- **Durable Power of Attorney for Health Care:** This form allows you to appoint someone as your representative to make all health-care decisions for you should you become unable to communicate temporarily or permanently.
- **Living Will:** This form allows you to give advance written directions about all your health-care decisions if you are unable to communicate temporarily or permanently.

If you would like more information or to obtain a form, contact either Swedish Care Coordination at 206-320-2760 or the Swedish Cardiac Surgery office at 206-320-7300.

Information is also available online — simply type “advance directive” into the search engine at www.swedish.org.

Select a Spokesperson

Choose a spokesperson to act as your primary representative while you are in the hospital. Doctors and nurses will communicate with the spokesperson and then the spokesperson is responsible for relaying this information on to family members and friends.



This allows us to focus on caring for your loved one and also helps maintain his or her privacy. Immediately after surgery, the nurse in the intensive care unit will ask the spokesperson to establish a “password” that will be needed in order to obtain any information about the patient.

If you have a Durable Power of Attorney for Health Care, this person will serve as your spokesperson.

Establish an Initial Discharge Plan

Some patients return home after surgery while others benefit from a brief stay in a skilled nursing facility for further rehabilitation. Discharge plans may change after surgery, but it is beneficial to have an initial plan in place.

Things to Consider

Do you anticipate returning home or going to a skilled nursing facility at discharge?

If you do not have family or friends that can stay with you most of the time for the first 1-2 weeks after surgery, you may want to consider a short stay in a skilled nursing facility.

If you anticipate going to a skilled nursing facility after surgery, please let the nurses in the Swedish Cardiac Surgery office know. They can provide you with a list of skilled nursing facilities.

If returning home, who will assist or stay with you after surgery? You should not expect to perform household chores, including cleaning, cooking, or grocery shopping for at least two weeks after surgery.

If you have a lot of stairs at home, you may want to stay downstairs if possible or stay with family or friends.

The Week Before Surgery

- Stop taking medications on the restricted list one week before surgery or as advised by your surgeon.
- Call the Swedish Cardiac Surgery office if you develop a cold, fever, persistent cough, sore throat or other illness before surgery.
- Review your pre-surgical instructions and the information in this booklet. Please call the Swedish Cardiac Surgery office if you have any questions or concerns.
- Select your clothes for discharge from the hospital. We recommend loose, comfortable clothing and button-up shirts as they will be easier for you to put on and remove.
- Review your discharge plan:
 - Will you be going to a skilled nursing facility after surgery or home?
 - Who will stay with you after surgery?
 - Who will pick you up from the hospital?
- Try to get a good night's rest.
- Pack a small bag containing your personal toiletries, this booklet, clothes to wear at discharge from the hospital, and a music player if you would like to bring one. You will not need this bag until after surgery so you may want to leave it with your family or a friend until needed.
- Apply the Bactroban ointment to each nostril with a cotton swab (Q-tip) if advised to do so by the Swedish Cardiac Surgery office.

The Evening Before Surgery

- Do not eat, drink, or chew anything after 12 midnight or as advised by your surgeon.
- Shower with the antibacterial soap provided.
- Brush your teeth and rinse with the Peridex mouthwash.
- Shower with the antibacterial soap provided.
- Brush your teeth and rinse with the Peridex mouthwash.
- Apply the Bactroban ointment to each nostril with a cotton swab (Q-tip) if advised to do so by the Swedish Cardiac Surgery office.
- Take only the medications you were instructed to take the morning of surgery. Take them with just enough water to swallow them comfortably.
- Wear your hair loose without clips, pins or bands. Do not use hairspray. If you wear a wig or hairpiece you will be asked to remove it before surgery.

The Morning of Surgery

Plan to arrive at the hospital approximately two hours prior to your surgery.

- Shower with the antibacterial soap provided.
- Brush your teeth and rinse with the Peridex mouthwash. Do not swallow any water.
- Apply the Bactroban ointment to each nostril with a cotton swab (Q-tip) if advised to do so by the Swedish Cardiac Surgery office.
- Take only the medications you were instructed to take the morning of surgery. Take them with just enough water to swallow them comfortably.
- Wear your hair loose without clips, pins or bands. Do not use hairspray. If you wear a wig or hairpiece you will be asked to remove it before surgery.

- Remove all makeup and nail polish. If you have nail tips or wraps, you will need to remove these from at least one finger on each hand.
- Dress in comfortable clothing.

What to leave at home

- Jewelry (including wedding rings), watches and body piercings
- Money and credit cards, except for one debit or credit card for new prescription co-payments. If possible, please have a family member or friend bring this to you on the day you leave the hospital.

What to bring

- Your medical insurance information and pharmacy card
- Small bag of personal items, including this booklet to leave with family or friends during surgery
- List of your medications
- Peridex mouthwash
- Any of the following that apply
 - Hearing aid with container
 - Glasses with case
 - Dentures with container
 - CPAP machine and record of your CPAP settings
 - Identification card for any implanted medical device you may have
- One debit or credit card for new prescription co-payments. If possible, please have a family member or friend bring this to you on the day you leave the hospital.

Hospital Care



Hospital Care

What Patients Can Expect on the Day of Surgery

Patient Registration

On the day of surgery you will check-in at the Patient Registration area in the main lobby of Swedish's Cherry Hill campus. You will then be taken to a holding area where prep-work for surgery will be completed: placing IV and monitoring lines, clipping hair from the area of surgical incisions and reviewing your medications.

Your anesthesiologist (doctor who puts you to sleep for surgery) will meet with you at this time to review your medical history and answer any questions you may have. If you are anxious, the doctor will offer you IV medication to relax you after all questions have been answered.



Operating Room (OR)

The operating room is brightly lit, cool and filled with equipment. A nurse will offer you a warm blanket upon arrival if you feel cold. Once you are on the operating table, monitoring equipment will be attached.

You will initially receive oxygen through a mask on your face until the anesthesiologist administers the general anesthesia (medication to put you to sleep) through your IV. Once the anesthesia takes effect (you are asleep), a breathing tube will be inserted through your mouth to deliver oxygen to your lungs.

Other lines that will be inserted after you are asleep include but are not limited to:

- An arterial line to monitor your blood pressure, which will be placed in your wrist or groin
- A central line to monitor pressures in your heart, which will be placed in your neck
- A Foley catheter (tube that drains urine from your bladder), which will be placed in your urethra

Once your surgery has been performed, the surgeon will place tubes in your chest to drain fluid after your surgery.

Cardiovascular Intensive Care Unit (ICU)

Waking Up After Surgery

After surgery you will be taken to the cardiac intensive care unit. When you first arrive, you will still be asleep from anesthesia with a breathing tube in place. Your wrists may have soft restraints limiting the movement of your hands when you first wake up after surgery. This ensures that you don't pull out any line or tubes when you first wake up and may be confused. The nurse will remove these restraints once you are fully awake.

You will not be able to speak when the breathing tube is in place. The nurse will anticipate your needs and ask you questions that only require a "yes" or "no" answer. Nod or shake your head to state "yes" or "no." As long as the breathing tube is in place, the nurses and respiratory therapists periodically suction out phlegm that may have settled in your lungs during surgery. This is extremely important to prevent pneumonia.

Breathing tubes are usually removed within 2-6 hours after surgery or when you are awake and able to breathe on your own. Once your breathing tube is removed, you should begin to use your spirometer (breathing device) followed by coughing exercises every hour while you are awake. These breathing exercises help to re-expand your lungs after surgery, clear phlegm and prevent pneumonia.

It is not unusual to feel cold and shiver for a short while after surgery. You will be offered warm blankets if needed.

You may feel quite thirsty when you first wake up. This is completely normal. You will initially be offered ice chips and then liquids if you are not having any difficulty swallowing.

Your throat may feel sore from the breathing tube after surgery. Ice chips and throat lozenges may be used to reduce the soreness.

You will have chest tubes in place to drain blood and fluid from the surgical site. These tubes will be removed within the first few days after surgery.

You will have a Foley catheter (tube) in your bladder to drain urine. Sometimes this catheter makes you feel like you have to urinate. The catheter will be removed within a few days of surgery.

You will have an arterial line in your wrist or groin to monitor your blood pressure. This line will be removed before you transfer out of the intensive care unit.

Activity

Movement and changes in your position improve blood flow in your legs and clear phlegm from your lungs. While lying in bed, wiggle your toes up and down. Your nurse will help you change positions, turning from one side to another. When your breathing tube is out and your blood pressure is stable, the nurse will help you sit on the edge of the bed, and then get up to a chair.

Pain

When you first arrive in the ICU, you will receive constant pain medication through your IV. Once your breathing tube is out, you will be given pain medication by mouth, and your constant IV pain medication will slowly be weaned off.

The amount of pain is not as great as most patients expect; however, cardiac surgery is not a pain-free procedure. Some patients experience very little pain while others describe feeling “beat up.” Your nurse will frequently assess your pain level on a scale of 0 to 10 (with zero being no pain and 10 being the worst possible pain). The goal is to keep your pain level at 4 or below, or at a level that is tolerable for you.

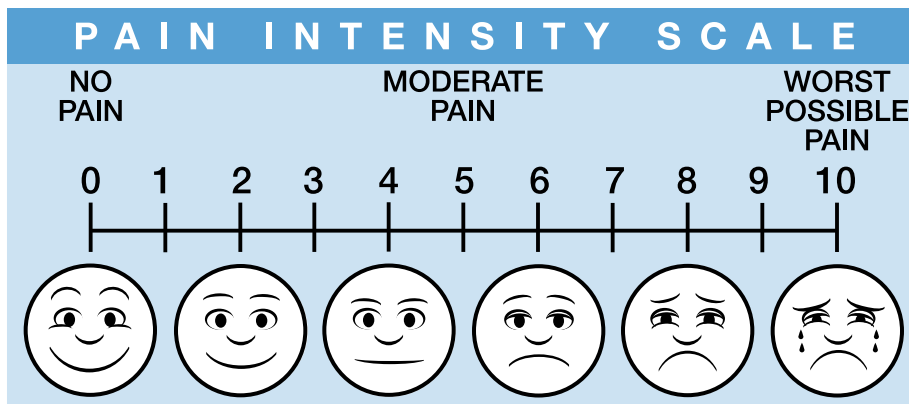
Request pain medication from your nurse when your pain reaches a level of 4 or above on the pain scale (below).

No medication will take away all of your discomfort, but we want to help you achieve a balance between pain control and your ability to participate in activities that help your recovery.

When pain is controlled, you’ll walk sooner and recover faster. Be honest about how much pain you feel. Don’t be afraid to ask for pain medication when you need it. Tell your nurse if the medications don’t reduce pain or if you suddenly feel worse.

Discharge from the Intensive Care Unit

The timing of discharge from the ICU varies with each patient. Most patients can anticipate transferring out of the ICU the day after surgery.



What Family and Friends Can Expect on the Day of Surgery

Before surgery, family and friends may stay with the patient until it is time to go to the operating room. If the patient is in the hospital already, family and friends may visit approximately 2½ hours prior to surgery.

Please tell the anesthesiologist how to contact you during the patient's surgery. You may receive updates via your personal phone or the phone located at the Cherry Hill main entrance information desk.

Please check in at the Cherry Hill main entrance information desk (located at the main entrance next to Starbucks) when they take your loved one to surgery.

You will be updated via phone from the operating room at significant intervals, commonly every 3-4 hours. Usually this occurs when the patient goes on the heart-lung machine (also known as "on bypass") and again after coming off the heart-lung machine (also known as "off bypass").

If you have not received an update for greater than four hours, please notify the main entrance information desk at 206-320-5103 or 206-320-5104. The receptionist will be able to contact the operating room to obtain an update for you.

Please remember that the surgery schedule is based on average surgery times. However, each patient's case is different and the amount of time it takes to perform the surgery can vary greatly.

The surgeon will call or speak directly with the patient's spokesperson after surgery.

If you are asked to move from the main entrance waiting area to the cardiac visitor's lounge on the 2nd floor once the operation is near completion, please go directly without delay. The surgeon will expect to find you there to discuss your loved one's surgery.

It takes approximately ½ hour to settle the patient in the intensive care unit after surgery. During this time you may wait in the visitor's lounge on the 2nd floor cardiac unit. Please check in with the receptionist in the cardiac intensive care unit prior to waiting in the visitor's lounge.

To access the cardiac visitor's lounge, take the Skybridge elevators to the 2nd floor. The visitor's lounge is located across from the elevators. The cardiac intensive care unit is to the right after exiting the Skybridge elevators.



Visiting Guidelines for the Intensive Care Unit

Immediate family members may visit the patient 24 hours a day for short periods. Please coordinate all visits through the nursing staff. Your first visit may occur as soon as the patient is settled in the intensive care unit after surgery.

To access the cardiac intensive care unit, take the Skybridge elevators to the 2nd floor. The cardiac intensive care unit is located to your right after exiting the elevators.

The nurse in the intensive care unit will obtain the contact information and password from the family spokesperson. The patient's spokesperson may call for a condition report 24 hours a day. Nurses change shifts between 7-8 a.m., 3-4 p.m., and 11 p.m. and midnight. As a courtesy to the nurses, please try to avoid calling at these times, so they may focus on patient care.

The cardiac intensive care unit phone is 206-320-2222.

Flowers, plants and balloons are not allowed in the intensive care unit.

Protect your loved one. Please apply anti-bacterial gel to your hands prior to entering the patient's room.

Do not visit the hospital if you do not feel well yourself. Colds and other illnesses can easily be spread to patients.

If you are visiting your family member between 9 p.m. and 7 a.m., you will need to enter and exit the Cherry Hill campus through the Emergency Room entrance on 16th Avenue. Hospital doors are locked during these times for security.

The initial visit in the intensive care unit can be intimidating. Being prepared for what you see may help ease your anxiety. Your family member may have a breathing tube in his or her throat and will be connected to monitoring equipment.

The patient will not be able to talk while the breathing tube is in place. Please only ask the patient questions that require a "yes" or "no" answer, or just offer comfort by touching his or her hand and saying a few words. The patient may still be tired and/or confused from anesthesia and may not be able to communicate with you.

We encourage family members to be present for "morning rounds" weekdays between 9-10 a.m. if possible. Morning rounds consist of various health-care specialists such as the intensivist (doctor who specializes in the care of ICU patients), pharmacists, dietitians, respiratory therapists and nurses. These specialists review the care plan for every patient in the intensive care unit. The cardiac surgeons are usually not present for these rounds.

Recovery on the Telemetry Unit

Following your stay in the cardiac intensive care unit, you will be transferred to the telemetry unit located on the 4th floor.

To access the telemetry unit, take the East Tower Cherry Street elevators to the 4th floor. These elevators are located close to the Dining Room. The telemetry unit is located to your left after exiting the elevators.

Breathing

You will receive oxygen through small tubing attached to your nose. This will be weaned off over a few days.

Breathe deeply, cough and use your incentive spirometer (breathing device) every hour. Take 10 slow, deep breaths each time followed by three strong coughs. Hug your pillow when you cough to decrease discomfort and protect your chest.

These breathing exercises are very important to re-expand your lungs after surgery, help to clear phlegm and reduce your risk of pneumonia.

Perform “purse lip” breathing as you ambulate. Ask your physical therapist for instructions.

Pain

Request pain medications every 3-6 hours as needed. The pain medication is more effective if taken before the pain worsens, so request it before your pain gets too intense.

Request a pain pill prior to sleeping so you don't wake up in the middle of the night with pain.

Activity

Your nurse and therapists will teach you sternal precautions, or how to move while protecting your sternum (chest) until it is healed from surgery.

Your activity level will begin with sitting up in a chair and quickly progress to taking several short walks a day.

You will work with Physical Therapy and Occupational Therapy daily after surgery.

If you have stairs at home, you will climb a few stairs with your therapist prior to discharge.

Chest Tubes and Drains

Your chest tube and small drains will be removed when drainage is minimal. Usually this is within 24-48 hours after surgery.

Monitoring

A portable EKG (electrocardiogram) will be used to monitor your heart rate and rhythm.

Your nurse will check your blood pressure and other vital signs regularly.

Your blood sugar will be monitored and treated with insulin as needed. High blood sugars increase the risk of infection after surgery. Even people who are not diabetic may have high blood sugars temporarily after surgery.

You will have blood drawn for lab tests and chest X-rays as needed.

Diet, Appetite and Constipation

Call to order your meals from the menu provided in your room. A family member or nurse can assist you if needed.

Some patients may experience constipation as a result of anesthesia from surgery, inactivity and medications. You will be given a stool softener and other bowel medications as needed to relieve constipation.

Fresh fruits and vegetables, prunes or prune juice, and fluids may help ease constipation.

Poor appetite and changes in sense of taste and smell are common after surgery. Try to eat smaller more frequent meals to compensate for these changes.

You may experience black stools if you are taking an iron supplement.

Sleeping

Vivid dreams, interruptions by hospital staff, monitors and the unfamiliar environment may prevent you from getting a good night's sleep.

Request pain medication prior to bedtime to sleep more comfortably.

Try not to sleep too much during the day so you can sleep at night.

You may request a sleeping pill from your nurse if needed.

Sweats and Swelling

It is fairly common to feel sudden rushes of cold or warmth after surgery. You may experience a lot of sweating, particularly at night. Nurses will monitor your temperature for fevers of 101 degrees Fahrenheit or higher.

Elevate your legs above your heart 2-3 times daily and wear the knee-high Ted stockings to reduce swelling.

Loud, Fast or Irregular Heartbeat

Many patients feel the sensation of a forceful heartbeat after surgery. As the chest heals, this sensation goes away. If you feel your heart racing or beating irregularly, notify your nurse.

Depressed Mood

Patients may have mood changes after surgery, including episodes of "highs" and "lows." These mood swings can occur for several days or weeks. If you are feeling low for two or more weeks, talk to your doctor. You may benefit from joining a support group, increasing your physical activity or temporarily taking an antidepressant.

Blurred or Double Vision

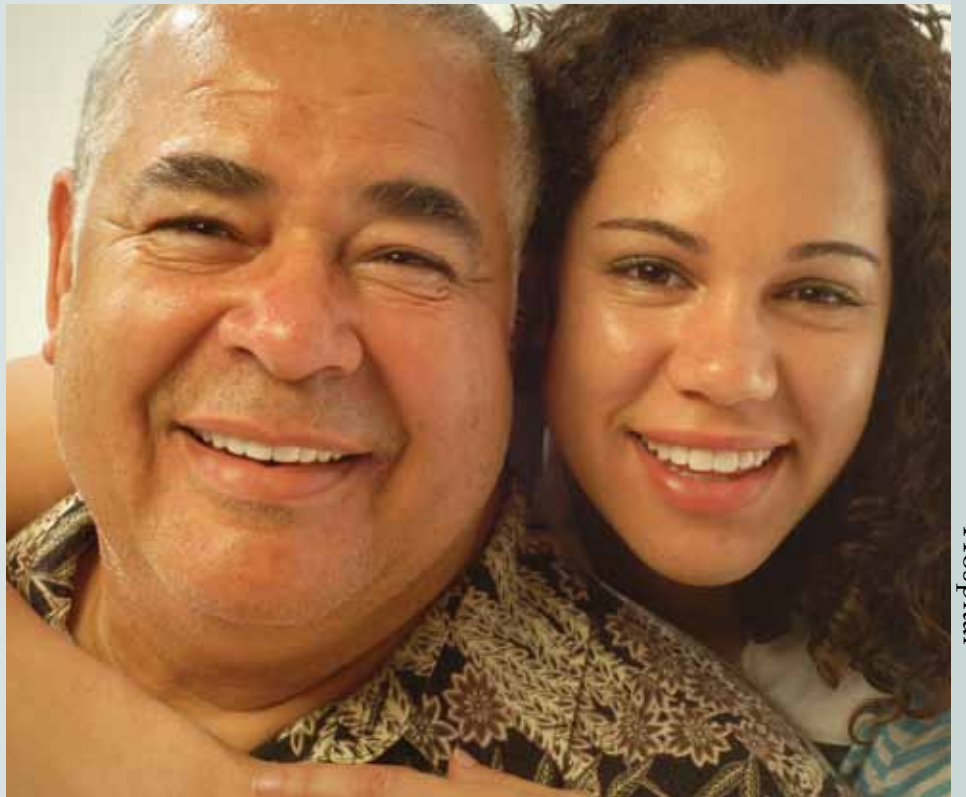
Temporary vision problems may make it difficult to read. This may take several weeks to improve. Notify your doctor and nurse of any vision problems you experience.

Recovering From Heart Surgery... What to Expect Day by Day

This is an outline of what you can expect each day during your hospital stay. It is a general guide. Your personal recovery may vary from the guideline.

	Day of Surgery	Day After Surgery	Day 2 After Surgery	Day 3 After Surgery	Day of Discharge
What to do Today	<p>Patient in Surgery</p> <p>Family waits in Surgery Waiting Area or is available by phone</p> <p>Patient goes to Intensive Care Unit (ICU) after surgery</p> <p>Family may visit in ICU</p>	<p>Transfer from ICU to telemetry floor</p> <p>Sit in chair for lunch and dinner</p> <p>Walk with physical therapist and nurse as tolerated</p> <p>Coughing, deep breathing and incentive spirometer 10 times an hour while awake</p>	<p>Shower with assistance</p> <p>Sit in chair for all meals</p> <p>Walk with physical therapist or nurse</p> <p>Coughing, deep breathing and spirometry 10 times an hour while awake</p>	<p>Shower with assistance</p> <p>Sit in chair for all meals</p> <p>Walk with physical therapist or nurse 4-6 times a day</p> <p>Coughing, deep breathing and spirometry 10 times an hour while awake</p> <p>Review Discharge Plan</p>	<p>Shower with assistance prior to going home</p> <p>Get ready to go home</p> <p>Walk 4-6 times a day for 5-10 minutes</p> <p>Gradually increase the length of walks</p> <p>Rest twice daily, elevating your legs for about 30-60 minutes</p> <p>Shower every day with anti-bacterial soap at home</p>
Education		<p>Mobility and activity precaution instruction from therapists and nurses</p>	<p>Review Heart Surgery booklet discharge instructions</p>	<p>Patient and family watch discharge instruction film on hospital channels 59-62</p>	<p>Discharge instructions and follow-up care reviewed</p> <p>Prescriptions given for medications to take at home</p> <p>Refer to Heart Surgery booklet discharge instructions</p>
Tests/ Procedures	<p>Intravenous (IV) tubes in place to deliver medications and fluids</p> <p>Heart monitor records your heart rhythm</p> <p>Temporary pacemaker regulates your heart rate if needed</p> <p>Tubes in chest drain fluids</p> <p>Tube in bladder drains urine</p> <p>Breathing tube usually removed within 2-6 hours after surgery</p>	<p>All IV tubes removed except for one</p> <p>Heart monitor records your heart rhythm</p> <p>Tubes in chest and bladder may be removed</p> <p>Nasal tube delivers oxygen</p> <p>Blood is drawn for lab tests</p> <p>Chest X-ray is taken in your room</p>	<p>Blood is drawn for lab tests</p> <p>Chest X-ray is taken in radiology</p> <p>Tubes in chest and bladder may be removed if not removed on day after surgery</p>	<p>Temporary pacing wires are removed</p> <p>Blood is drawn for lab tests if needed</p>	<p>Blood is drawn for lab tests if needed</p>
Nutrition	<p>Nothing to eat or drink prior to surgery</p> <p>Ice chips permitted after breathing tube removed and then liquids</p>	<p>Liquid/soft diet</p>	<p>Regular diet</p>	<p>Regular diet</p>	<p>Home</p>

Leaving The Hospital



Leaving the Hospital

Discharge Planning

Discharge planning should start prior to your surgery to optimize and facilitate your care. You will be asked whether you anticipate returning home after surgery or staying in a skilled nursing facility temporarily.

If you anticipate returning home, you will be offered the option of home health services.

If you anticipate a short stay in a nursing facility, a list of facilities will be given to you so you and your family can select your three preferred facilities.

Discharge plans may change after surgery. However, it is beneficial to have an initial plan in place. A social worker or care manager will meet with you after surgery to assist you with your personal discharge plan.

Every patient's recovery is different, but most patients can anticipate staying in the hospital for 4-5 days after their surgery. The time and date of your discharge will be determined at least 24 hours in advance and noted on the white erase board in your hospital room.

You should anticipate leaving the hospital between 10-11 a.m. on your day of discharge.

Skilled Nursing Facility

A nursing home, also known as a skilled nursing facility or SNF, has licensed nurses who help provide 24-hour care to people who need further rehabilitation after surgery.

Examples of skilled medical care include:

- A nurse doing wound care, changing dressings, or administering I.V. antibiotics.
- A physical therapist helping to correct strength and balance problems that have made it difficult for a patient to walk or get on and off the bed, toilet or furniture.
- An occupational therapist helping a person relearn independent self-care in areas such as dressing, grooming and eating.

Is nursing home care covered by Medicare, Medicaid and private insurance?

Most medical insurance coverage follows Medicare guidelines. Private insurance and Medicare pay for nursing home care only for limited time periods following a hospitalization:

- You must have been hospitalized for at least three days.
- You must enter the nursing home within 30 days of leaving the hospital. Most patients going to a nursing home go there directly from the hospital.
- Only the first 20 days are 100 percent covered; then, there is a daily deductible.

Which skilled nursing facility?

If you choose discharge to a skilled nursing facility you will be provided a list of qualified facilities. We cannot endorse specific facilities and encourage you and your family to visit the facilities prior to surgery if possible.

When you are ready for discharge, the care manager will contact your preferred facilities to see which facility has beds available. You will be discharged to the facility that has an available bed for you.

Bed availability at skilled nursing facilities changes daily and most facilities will not “hold” beds for patients without a fee. If your discharge date changes you may lose your bed at that skilled nursing facility.

Please know that Swedish care managers do their best to discharge you to the facility of your choice.

Helpful Web sites:

- http://www.helpguide.org/elder/nursing_homes_skilled_nursing_facilities.htm

Non-profit organization whose mission is to empower you and your loved ones to understand, prevent and resolve health challenges.

- <http://www.medicare.gov/nursing/overview.asp>

U.S. government Web site for skilled nursing facilities. Includes nursing home comparison information and a checklist to help you evaluate facilities during your visit.

Home Health Services

If you are well enough to be discharged from the hospital yet still require some supportive care, you may benefit from home health services. Examples of services include monitoring your surgical incisions, checking your blood pressure, monitoring your medications, drawing blood for lab tests, and physical and occupational therapies.

Home health services usually consist of a visiting nurse coming to your home 1-2 times a week for a few weeks after surgery. If you live outside of the range covered by Swedish Visiting Nurse Services, we will find home health services available in your area.

Home Medical Equipment

Physical and occupational therapists will assess your need for home medical equipment in the hospital.

We can provide you with prescriptions for walkers, elevated toilet seats, bedside commodes or other medical equipment you may need after surgery.

Discharge Medications

Your discharge prescriptions may be filled at Swedish’s pharmacy or the pharmacy of your choice. For your convenience, we recommend that you fill your discharge medications at Swedish. Your personal pharmacy may not carry all the medications prescribed. If needed, your prescriptions may be transferred to your personal pharmacy at a future date.

Only take the medications listed on your discharge medication list.

Discharge Checklist

- Do I have a ride arranged?
- Does my ride know what time to pick me up? Anticipate leaving between 10-11 a.m. on the day of discharge.
- Do I have all the medical equipment/supplies that I need at home?
- Have I made arrangements with family or friends to assist me after surgery?

We recommend that you have someone with you most of the day for 1-2 weeks after surgery.

- Do I know what medications I will be taking after discharge?

You should only take the medications on the list given to you at discharge from the hospital.

If you are discharged on the medication Coumadin (Warfarin), do you know where and when to have your blood drawn for the PT/INR lab test?

- Have I made my follow-up appointments?

You will follow up with both your cardiac surgeon and cardiologist 2-4 weeks after surgery — follow the specific instructions given to you at discharge. You should follow up with your primary-care provider 4-6 weeks after surgery.

Follow-up Appointments:

Cardiac Surgeon: _____ Phone: **206-320-7300**

Appointment Date/Time: _____

Cardiologist _____ Phone: _____

Appointment Date/Time: _____

Primary-Care Physician: _____ Phone: _____

Appointment Date/Time: _____

Protime/INR Lab Test: _____ Phone: _____

Appointment Date/Time: _____

The Swedish Cardiac Surgery office is located in Suite 110 on the 1st floor of Jefferson Tower at the Swedish Cherry Hill campus.

To access the office from the main lobby, turn left at the main entrance, turn left again at the hallway to Jefferson Tower. We are the 1st office on the right.

To access the office from the 16th Avenue Parking Garage, take the parking garage elevators to the Skybridge level and turn right at the hallway to Jefferson Tower.

Bring this booklet with you to your follow-up appointments.



Home Care



Who to call if you have an unexpected problem after surgery

Cardiac Surgery Clinic nurses are available by phone from 8:30 a.m. to 5 p.m. weekdays. Call 206-320-7300.

Go to your local emergency department or call 9-1-1 if you are experiencing:

- Chest pain or discomfort similar to the pain you had before surgery (angina)
- Fast heart rate of more than 150 beats per minute, especially if you are short of breath
- Shortness of breath NOT relieved by rest
- Fever with chills
- Coughing up bright red blood
- Fainting spells
- Severe abdominal pain



Call the Swedish Cardiac Surgery office if you are experiencing:

- Weight change (gain or loss) of four pounds or more in two days
- Worsening ankle swelling or leg pain
- Sharp pain when taking a deep breath
- Temperature higher than 101 degrees Fahrenheit twice in 24 hours
- Bleeding, drainage or oozing from incisions
- Incisions that are red, warm to the touch, swollen or draining
- New or increasing shortness of breath
- Persistent nausea, vomiting or diarrhea
- Lightheadedness or fainting
- New irregular heartbeat less than 150 beats per minute

Swedish Cardiac Surgery Patient Discharge Instructions

Thank you for choosing Swedish Cardiac Surgery for your heart care.

Activity

Recovery time varies with each person, but it is usually slow and gradual. In general, you will feel stronger every day but at first even the simplest things may tire you.

A certain amount of activity is good for you during your recovery though some activities should be avoided.

Do not lift, push or pull more than five pounds (approximately the weight of a jug of milk) for the first month after surgery or more than 15 pounds the 2nd month after surgery. This gives your breastbone time to heal properly.

If you had a minimally invasive surgery where your breastbone was not split for surgery, do not lift more than 15 pounds for 2-4 weeks after surgery.

Don't raise your elbows above shoulder height for the first two months after surgery.

Take 4-6 short walks a day, increasing your distance and decreasing the frequency of walks until you are able to walk 30 minutes at a time. Shopping malls provide a nice flat place to walk if needed.

You may climb stairs but rest every 3-4 steps as needed.

Sexual activity can usually be resumed 3-4 weeks after discharge from the hospital or when you can easily climb a flight of stairs.

Take time to exercise daily, following the recommended Walking Program and Range of Motion Exercises.

Avoid household chores such as cleaning, vacuuming, laundry, taking out the trash or carrying grocery bags.

Avoid outdoor activities such as raking, mowing, chopping, shoveling, golfing or any activity that causes a clicking in your chest.

Plan on attending a cardiac rehabilitation program 4-6 weeks after surgery. Most patients feel more confident exercising in a controlled environment under the watchful eyes of the rehabilitation staff and ultimately recover more quickly.

Travel

Driving may usually be resumed approximately four weeks after surgery if you are no longer taking narcotic pain medications (Darvocet, Oxycodone, Percocet). You may ride as a passenger at any time. Please wear your seatbelt.

If riding for long distances, stop every hour or so and walk around for 10-15 minutes.



You may fly on an airplane after your follow-up visit with your surgeon unless you are told to do otherwise. You should not have any difficulty going through the metal detector at the airport. If you are flying for more than an hour, perform your ankle range of motion exercises and walk around for 5-10 minutes. Wear your Ted hose (pressure stockings) to reduce or prevent swelling in your legs while flying.

Discomfort

Mild amounts of discomfort after surgery commonly continue for a few weeks. Remember to take your pain medication throughout the day and at bedtime if you need it. You may want to write down the time you take a pain pill to help give you adequate, but not too much, pain medicine.

As you wean yourself from the pain pills, you may take Tylenol for general aches and pains. If you have no history of kidney problems, you may also use ibuprofen for 1-2 weeks.

Exercising daily as instructed and using a heating pad will relieve muscle stiffness and pain.

You may feel temporary numbness, tingling and discomfort in your fingers. This is caused by the stretching of your chest during surgery and should improve gradually over 1-3 months.

Many patients experience hypersensitivity of the skin around their incision after surgery. This is normal and improves as the wound heals.

Bypass surgery patients may experience numbness, tenderness and tingling on the side of their chest if a mammary artery was used. This will improve gradually over 2-3 months.

A sore, scratchy throat can occur from the insertion of the breathing tube and may last for several weeks. You may also notice some hoarseness in your voice. If not improved by your follow-up visit, we may refer you to an ENT (ear, nose and throat) doctor for further evaluation.

Sleeping

Your sleeping pattern may change temporarily after surgery. Insomnia may be caused by discomfort, inactivity or anxiety. You may find that you only sleep for a few hours at a time. You can take one or two short daytime naps to help fight fatigue, but do not sleep too much during the day.

You may want to take a pain pill at night to help you sleep comfortably. Sleeping pills are not routinely recommended, but Tylenol PM may be used if needed. If you use Tylenol PM and are taking regular Tylenol (acetaminophen) throughout the day, be sure not to take more than 4 grams (4,000 milligrams) total of Tylenol (acetaminophen) in one day.

You can sleep in any position that is comfortable for you. Call your surgeon or cardiologist if you are waking up short of breath or requiring extra pillows in order to breathe comfortably at night.

Breathing

Mild shortness of breath with activity is common after surgery. This feeling should go away quickly with a few minutes of rest. If you notice new shortness of breath or difficulty breathing while sleeping, call the Swedish Cardiac Surgery office.

Use your spirometer (breathing device) to exercise your lungs 4-6 times daily for at least two weeks after your surgery.

Perform purse lip breathing exercises with activity.

You may continue to cough to clear phlegm from your chest for a few weeks after surgery. If the phlegm is clear, this is normal. Call the Swedish Cardiac Surgery office if you cough up bloody/tan/yellow/green phlegm or have a persistent dry cough.

Remember to support your chest with a pillow when you cough.

If you feel congested, you may want to place a warm humidifier in your bedroom to help you loosen up the phlegm and breathe easier.

Diet, Appetite and Constipation

You may have a poor appetite for several weeks after surgery. Temporary changes in your sense of taste and smell are common. Try to eat small meals frequently throughout the day. Don't worry too much about following a heart-healthy diet immediately after surgery. Eat what tastes good to you.



Once you have recovered and have your appetite back, you should follow a heart-healthy diet. If you have other diet restrictions for medical conditions such as diabetes or kidney disease, you will need to follow these restrictions after surgery.

If you are discharged home on an iron supplement you may experience black stools. Your stools will return to normal when your iron prescription is completed.

Take your medication with food unless specifically told to take it on an empty stomach.

Call the Swedish Cardiac Surgery office if you experience persistent nausea and vomiting.

If you are diabetic and have a poor appetite or vomiting, call the doctor who manages your diabetes because this can cause low blood sugar.

The anesthesia from surgery, inactivity and medications given to you may cause constipation. You will be prescribed a stool softener and should take this for 2-4 weeks after surgery.

You may use Milk of Magnesia at home to relieve constipation if you do not have kidney problems. Activity and gum chewing will also encourage your bowels to work properly.

High-fiber foods such as fruits, vegetables and whole grains can help prevent constipation. You may also want to take a daily fiber supplement, such as Metamucil, Citrucel or Benefiber.

Wound Care and Infection Prevention

If you notice any signs of possible infection, including redness, swelling, warmth, drainage or tenderness, call the Swedish Cardiac Surgery office right away. Wound infections can be quite serious and are easier to treat if discovered early.

You will be discharged from the hospital with either a clear dressing or a white foam dressing; both contain small particles of silver. These particles of silver help prevent infection. The clear dressing should stay on for approximately 10-14 days. This dressing will darken in color with time. The white foam dressing should stay on for one week. Both dressings may be removed by simply peeling them off.

Shower daily with antibacterial soap and water. Use a clean washcloth for your incision prior to washing the rest of your body.

Touch your incision as little as possible, being careful not to rub or scratch it. Numbness and itching along the incision are a normal part of the healing process.

If you have small band aid-like strips along your incision, do not pull them off. These strips will fall off by themselves, usually within 10-14 days.

You may have a small bump or swelling at the top of your incision. This will gradually return to normal in 2-3 months.

You should not soak in any water (tub, pool or Jacuzzi) until your incision has healed and the scabs have fallen off.

Do not apply any lotions, powders or ointments to your incision until after the scabs have fallen off.

Do not smoke! Smoking will delay the healing of your wound and increases your risk of developing a wound infection.

Pressure Stockings (Ted Hose)

Wear the knee-high pressure stockings provided to you in the hospital for 2-3 weeks after surgery or longer if you have swelling in your legs. You may take them off at night and will probably need some help putting them on every morning.

You may either rinse the stockings out in the sink or wash them in the laundry but do not place them in the dryer.

Swelling

Elevate your legs above your heart 2-3 times daily for 30-60 minutes. Sitting in a recliner chair is not adequate. Lay flat on a couch or bed with your legs elevated on pillows.

Avoid sitting for long periods of time.

If a vein or an artery was taken from your arm for bypass surgery, elevate the arm on a pillow when resting for the first two weeks.

Avoid blood pressures or blood draws from this arm for one month if possible.

Monitoring your Weight

It is very important to monitor your weight daily after surgery. You may be prescribed a diuretic (water pill) to help your body remove extra fluid. Tracking your weight allows your doctor to monitor the effectiveness of the diuretic therapy.

Weigh yourself at the same time every day, preferably in the morning.

Notify the Swedish Cardiac Surgery office of any weight gain or loss of four pounds or more in two days.



Temperature

It is fairly common to feel sudden rushes of warmth and cold after surgery. You may sweat a lot, especially at night. Take your temperature if you ever feel warm, flushed, chilled or have wound drainage.

Call the Swedish Cardiac Surgery office if your temperature is greater than 101 degrees Fahrenheit.

Wearing a Bra

Female patients may feel more comfortable if they wear a front closing sports bra after surgery. This support is especially important for women with large breasts because it reduces the tension on your incision.

The hospital does have a limited supply of support bras if needed, but you may want to bring your own.

While wearing a bra, please keep a dry gauze or clean washcloth between your breasts and your incision for the first two weeks after surgery.

Medication Refills

If you need pain medication refills, contact your surgeon's office. All other medication refill requests should be directed to your cardiologist or primary-care doctor's office.

Warfarin (Coumadin)

Coumadin is a pill taken every day to prevent clots from forming in your body. If you are discharged home on Coumadin, you will need a periodic blood test called a PT and INR to make sure you have the proper level of Coumadin needed by your body. It is best if your blood test is done in the morning so we can get results the same day.

It is important to take Coumadin at the same time every day to ensure a level dose of Coumadin in your blood, usually around dinnertime (5-8 p.m.).

If you are ever unsure about how much Coumadin to take or if you miss a Coumadin dose, call our office. Do not guess how much to take or attempt to “make up” missed doses.

It is important to maintain a stable level of vitamin K in your diet while taking Coumadin. For more information:

- Ask your pharmacist
- Read the Warfarin (Coumadin) section in this book under “Commonly Prescribed Medications”
- Visit the Web site: WebMD Anti-coagulants: Vitamin K and Your Diet (<http://www.webmd.com/a-to-z-guides>)

Dental Visits

If you have a valve repair or replacement, you should try to avoid routine cleanings or non-emergent work on your teeth for three months following your surgery. After surgery, you will need to take antibiotics prior to dental visits to prevent infection of your heart valve. The antibiotics are usually prescribed by your dentist and taken one hour prior to your dental visit.

It is important to maintain good dental health by visiting the dentist at least every six months. Poor dental health has been linked to heart disease and can cause heart valve infections.

Smoking

Don’t do it. Smoking delays wound healing, increases your risk of wound infection and is the No. 1 cause of preventable disease and death. If you need help quitting, please talk with your primary-care doctor or refer to the Quitting Tobacco pages in this booklet.

Follow- Up Care

Generally you will follow up with your cardiologist and cardiac surgeon 2-4 weeks after surgery and with your primary-care doctor in six weeks. You will need to call their offices to make the appointments.

If all is well, you will not need to see your cardiac surgeon again. You should be followed long term by a cardiologist and primary-care doctor.

What You Can Do To Reduce Your Risk of Having Surgery Again

Not all heart disease can be prevented; however, the development of new blockages in your arteries can be prevented or significantly slowed by improving, reducing or eliminating these risk factors:

- Smoking
- High blood pressure
- High-fat diet
- High cholesterol
- Stress
- Diabetes
- Being overweight
- Physical inactivity

Diet



Diet Prescription

The Swedish Heart & Vascular Institute recommends that all patients with heart disease follow the Mediterranean Diet or the Omega Diet. These are not weight reduction “diets” but rather eating plans that have been proven to reduce the risk of heart attacks and strokes as well as diabetes and some cancers. To get you started we have enclosed the Gladstone Institute of Cardiovascular Disease Nutrition Prescription.

The Gladstone Institute of Cardiovascular Disease is a research institute that focuses on atherosclerosis (blood vessel disease) and its complications. While independent, Gladstone is formally affiliated with the University of California, San Francisco.

Diet: low saturated fat, trans-fat and dietary cholesterol

A diet that includes whole grains, fruits and vegetables, nuts, 1 percent fat or no-fat dairy, and 3 ounces of lean meat or poultry:

- Reduces the risk of coronary heart disease
- Lowers LDL (bad) cholesterol by 9 percent to 16 percent
- Combined with a low sodium intake reduces systolic blood pressure by 4-12 mm Hg and diastolic blood pressure by 1-3 mm Hg

(Nurses Health Study; Health Professionals Follow-up Study; National Health and Nutrition Examination Survey, American Dietetic Association, evidence analysis library)

Very low saturated fat and cholesterol diets (vegetarian based) have been shown to:

- Reverse atherosclerosis (blood vessel disease)
- Reduce cardiac events (heart problems)
- Produce ~20 percent reduction in LDL cholesterol
(JAMA. 1998; 280:2001-2007)



Fish rich in omega-3 fatty acids at least twice per week

Options: Flounder/sole, halibut, herring, mackerel, rainbow trout, salmon, sardines

- 31 percent reduction in coronary heart disease death and non-fatal heart attack
(Nurses Health Study: JAMA. April 10, 2002;287:1815-1821.)
- 72 percent to 81 percent reduced risk of sudden death
(Physicians Health Study: NEJM.2002;346:1113-1118.)
- 29 percent reduction in total death rates
(DART: Lancet. September 30, 1989:757-761)

Three or more servings (1 serving = ½ cup) of fruits and three or more servings of vegetables per day (more is better)

- 15 percent reduced all-reduction in all causes of death
- 42 percent lower death from stroke
- 24 percent lower ischemic heart disease death
(NHANES: *AJCN*. 2002;76:93-99.)



Alpha-linolenic acid: 1.5-3 grams per day

Options:

- Flaxseed oil, 1 tsp. per day
- Flaxseeds, ground, 2 tsp. per day
- Canola oil, 1-2 Tbs. per day
- Walnut oil, 1-2 Tbs. per day
- Walnuts, 2-4 ounces per day

Benefits:

- 45 percent reduced risk of death from coronary heart disease
(*Nurses Health Study: AJCN*.1999;69:890-897)
- 52 percent reduced risk of non-fatal and fatal heart attack
(*Lancet*. 2002; 360:1455-61.; *AHA: Circulation*. 2002;106:2747-2757)
- 72 percent reduced risk of cardiovascular disease death and non-fatal heart attack
(*Lancet*. June 11, 1994;343:1454-1459)

Overweight Patients

- Weight loss of 5 percent to 7 percent of body weight (by exercising 2.5 or more hours per week and eating total fat <30 percent of calories, saturated fat <10 percent of calories, fiber intake of 15 grams per 1,000 calories) reduced the risk of developing diabetes mellitus by 58 percent
(*Diabetes Prevention Program: NEJM*. 2002; 346:393-403; *Diabetes Prevention Study: NEJM*. 2001;344:1343-1350)

**EPA/DHA Fish oil supplements
1 gram per day**

- 30 percent to 45 percent reduced risk of cardiovascular mortality
(*GISSI: Lancet*. August 7, 1999; 354: 447-455.; *AHA Scientific Statement: Circ*. 2002;106:2747)

The following brands were tested by Consumerlab.com for content and purity; it is not a complete list.

- Advocare
- Nature's Bounty
- CVA natural fish oil
- Whole Foods
- GNC preventive Nutrition omega complex
- Vitamin World
- Sav-on Osco by Albertson's Natural fish oil
- Kirkland (Costco)

Exercise



Exercise Guidelines for Post Open Heart Surgery Patients

One of the major benefits of participating in a cardiac rehabilitation program after surgery is to teach you to exercise safely and to help you with how much and how hard to exercise. Here are some general guidelines to get you started at home before you begin a cardiac rehab program.

Starting Out

- Begin with a warm-up such as tapping your toes, bending your elbows or marching in place.
- Pace yourself. Listen to your body and take breaks when you feel tired.
- Be aware of signs of overexertion, such as shortness of breath or excessive fatigue. Slow your pace or stop walking if necessary.
- You should be able to carry on a normal conversation, sing or hum.
- You should be able to string four or five words together before taking a breath.
- Walk four to six times per day for five to 10 minutes on level ground.
- Gradually increase the length of walks and reduce the number of times per day you are walking.

Continue To

- Increase the length of the walks until you are walking one to two times each day for 20 to 30 minutes each time.

- When you reach 30 minutes per walk, switch to one walk per day, still on level surfaces. Gradually add inclines. Continue to increase walking time by a few minutes per week until you reach 60 minutes per day.

Remember To

- Warm up by walking slowly at first and gradually increasing your pace.
- Cool down by slowing down your pace for the last five to seven minutes.
- Keep your exercise heart rate no more than 30 beats per minute above your resting heart rate for the first three weeks after surgery.

Use Caution

- If you are unable to speak in short sentences of 4-5 words while exercising — you are exercising too hard. Slow down and take a break.
- If your breathing and heart rate take more than 10 minutes to settle down to resting levels — you are exercising too hard. Take a break.
- If it is extremely hot or cold, exercise inside in controlled temperatures if needed.
- If there is a lot of environmental smoke or smog that may make breathing difficult, use caution.
- If you are under a lot of emotional stress, use caution.

Stretches and Exercises

How Many and When

- These stretches should be done two to three times each day.
- Do two to three repetitions per session.

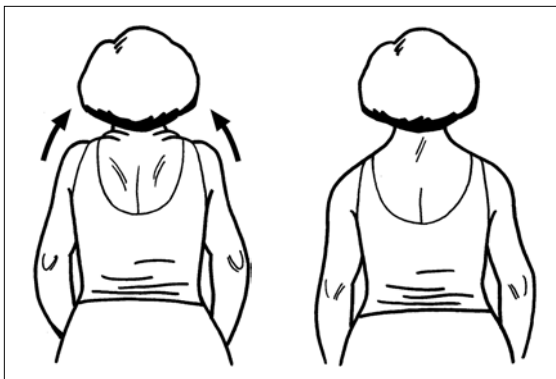
How to Do Them

- Complete these motions slowly.
- Begin with small motions and gradually make larger motions.
- At first, you may feel some “tightness” or “stiffness.” This should still be comfortable and not cause you pain.
- If you experience pain, discontinue and report this pain to your surgeon.

Shoulders

Shrugs

1. Stand or sit upright.
2. Gently shrug your shoulders upward.
3. Hold one to two seconds, then relax downward.
4. Repeat.



Backward rolls

1. Slowly rotate your shoulders backwards in small circles.
2. Repeat.

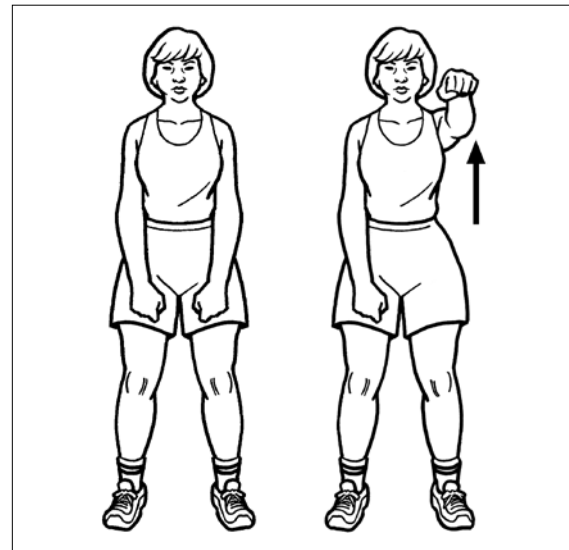


Arms

1. Lift one arm alone or both arms together to the front.
2. Repeat two to three times, slowly.

Arms raised to the side

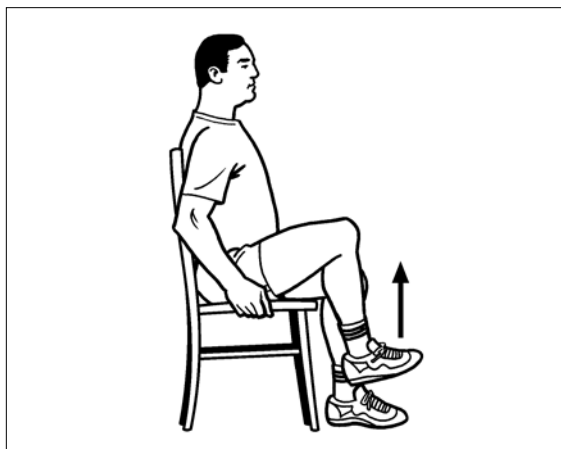
1. Lift one or both arms together out to the sides.
2. Repeat two to three times, slowly.



Legs and Ankles

Hip flexion

1. Sit on a firm surface.
2. Lift your knee up, then lower it down.



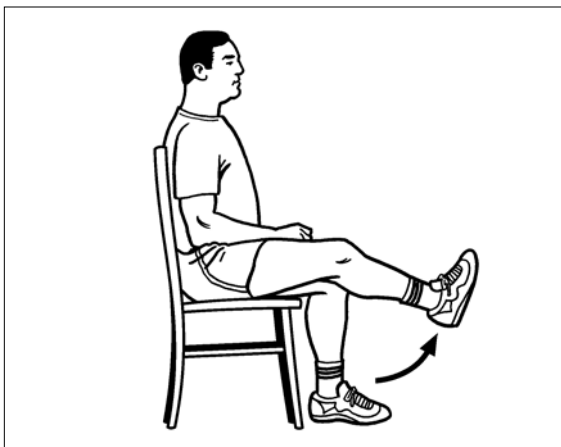
Lying down

1. Make circles with your ankles.
2. Reverse directions.
3. Point and flex both feet.



Sitting knee extensions

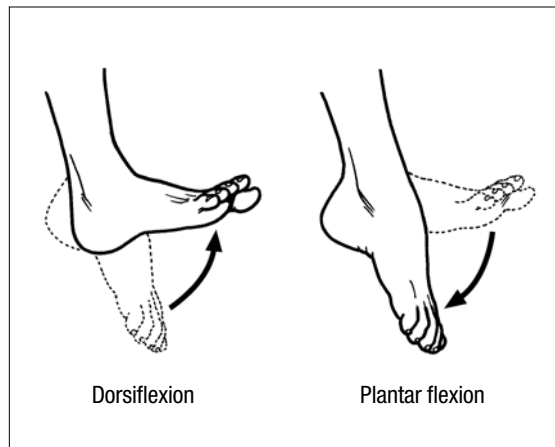
1. Sit on a firm surface with a rolled towel under your leg.
2. Lift your foot and straighten your knee all the way, then lower your foot.



Seated

1. Tap toes.
2. March with legs.

Note: Do these when you are seated for longer than ½ hour.



Breathing Exercises – Using your Spirometer

While you recover from surgery, it might be uncomfortable or painful to breathe in as deeply as you normally would. So, in order for your lungs to function properly, you need to use your incentive spirometer.

The incentive spirometer is a small, hand-held device that is used after surgery to help you expand your lungs and cough up any secretions from your lungs. It also helps maintain your normal breathing pattern and measures your inspiratory volume, or how well your lungs are being filled with air when you breathe in. In addition, the incentive spirometer will help you exercise your lungs, just as if you were going through your normal daily routine.



How to Use Your Incentive Spirometer

1. While sitting up in bed, hold the incentive spirometer in an upright position.
2. Exhale as you would normally, then put the spirometer's mouthpiece in your mouth and hold your lips tight around the mouthpiece.
3. Inhale slowly and deeply and try to raise the markers toward the top of the tube, then hold your breath as long as possible (at least for five seconds), then slowly let air out.
4. Rest for a few seconds and repeat steps 1-3 at least 10 times every hour when you are awake.

After using your incentive spirometer, cough to be sure your lungs are clear. Support your incision when coughing by placing a pillow firmly against your chest.

Huff Coughing

Coughing is a natural way to force mucus out of your lungs. During huff coughing, you gently say the word “huff,” which keeps your throat open.

1. To begin, inhale slowly and deeply, and then hold your breath for three seconds.
2. Then do a forced exhalation, whispering the word “huff” as you quickly let air out.

Pursed Lip Breathing

Pursed lip breathing is one of the simplest ways to control shortness of breath.

It provides a quick and easy way to slow your pace of breathing, making each breath more effective.

What does pursed lip breathing do?

- Improves ventilation
- Releases trapped air in the lungs
- Keeps the airways open longer and decreases the work of breathing
- Prolongs exhalation to slow the breathing rate
- Relieves shortness of breath
- Causes general relaxation

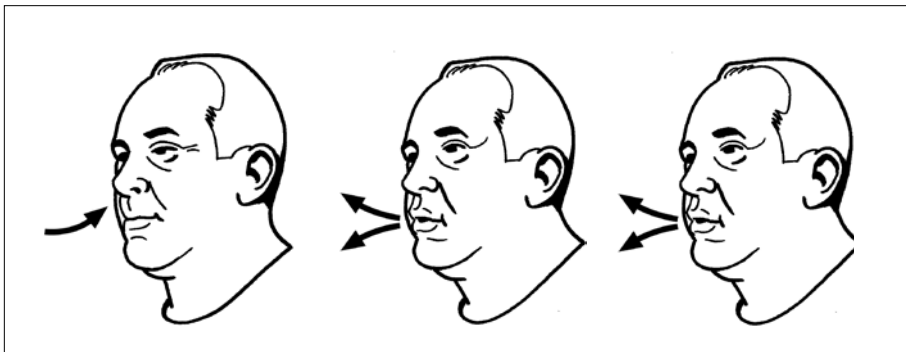
When should I use this technique?

- Use this technique during any difficult activity, such as bending, lifting or stair climbing.
- Practice this technique 4-5 times a day at first so you can get the correct breathing pattern.

Pursed lip breathing technique

1. Relax your neck and shoulder muscles.
2. Breathe in (inhale) slowly through your nose for two counts, keeping your mouth closed. Don't take a deep breath; a normal breath will do. It may help to count to yourself: inhale, one, two.
3. Pucker or "purse" your lips as if you were going to whistle or gently flicker the flame of a candle.
4. Breathe out (exhale) slowly and gently through your pursed lips while counting to four. It may help to count to yourself: exhale, one, two, three, four.

Remember, if you feel unusually short of breath with activity, contact your doctor.



Medications



Commonly Prescribed Medications

The following information is intended to be a quick reference for patients and their families. Please ask your pharmacist if you would like more information regarding your medications.

Acetaminophen (Tylenol)

This drug is used to treat mild to moderate pain (e.g., headaches, cold/flu aches and pains) and to reduce fever.

Amiodarone (Cordarone)

This medication is used to treat irregular heart rhythms (arrhythmias) and to maintain a normal heart rate in patients who have not responded to other medications.

Aspirin (Bufferin, Ecotrin)

This medication is used to reduce fever and relieve minor to moderate pain from conditions such as muscle aches and headaches. It may also be used to reduce inflammation and swelling in conditions such as arthritis.

Aspirin is known as a salicylate and a non-steroidal anti-inflammatory drug (NSAID) that works by blocking a certain natural substance in your body to reduce pain and swelling.

Aspirin is also used in low doses, alone or in combination with other medications, as a blood thinner to prevent blood clots after surgery on clogged arteries (e.g., bypass surgery, carotid endarterectomy) and to reduce the risk of stroke or heart attack.

Beta-Blockers: Metoprolol (Lopressor or Toprol), Atenolol, Propranolol

Beta-blockers are used to treat chest pain (angina) and high blood pressure. They are also used after an acute heart attack to improve survival. High blood pressure reduction helps prevent strokes, heart attacks and kidney problems.

Beta-blockers work by blocking the action of certain natural chemicals in your body such as epinephrine on the heart and blood vessels. This results in a lowering of the heart rate, blood pressure and strain on the heart.

Carvedilol (Coreg)

This medication is an alpha- and beta-blocker used to treat high blood pressure and heart failure. It is also used after a heart attack to improve the chance of survival. Lowering high blood pressure helps prevent strokes, heart attacks and kidney problems.

This drug works by blocking the action of certain natural chemicals in your body (such as epinephrine) that affect the heart and blood vessels. This lowers heart rate, blood pressure and strain on the heart.

Clopidogrel (Plavix)

Clopidogrel is used to prevent heart attacks and strokes in persons with heart disease (recent heart attack, unstable angina), recent stroke or blood circulation disease (peripheral vascular disease). It works by blocking certain blood cells called platelets and prevents them from forming harmful blood clots. This “anti-platelet” effect helps to keep blood flowing smoothly in your body.

Diltiazem (Cardizem)

Diltiazem is used with or without other medications to treat high blood pressure (hypertension), chest pain (angina) and irregular heart beat (atrial fibrillation). Lowering high blood pressure helps prevent strokes, heart attacks and kidney problems. When used regularly, diltiazem can decrease the number and severity of episodes of chest pain from angina. Diltiazem is called a calcium channel blocker.

It works to control blood pressure by relaxing blood vessels so blood can flow more easily, helping the heart work less hard to pump blood through your body. This effect on the heart, along with the relaxation of its blood vessels, may also relieve the symptoms of angina. Diltiazem may also decrease heart rate.

Docusate Sodium (Colace)

This medication is used to treat occasional constipation. Some medications and conditions can make constipation more likely. Stool softeners such as docusate are often the first method used for preventing and treating this type of constipation. Docusate is often used when straining to have a bowel movement should be avoided (e.g., after a heart attack or surgery).

Docusate is a stool softener. It works by increasing the amount of water the stool absorbs in the gut, making the stool softer and easier to pass.

Ferrous Sulfate or Iron Supplement

This medication is an iron supplement used to treat or prevent low blood levels of iron (e.g., for anemia or during pregnancy). Iron is an important mineral that the body needs to produce red blood cells and keep you in good health.

Fish Oil or Omega 3 Capsules

Fish oil contains Omega 3 fatty acids which have been shown to decrease the risk of developing abnormal heart rhythms, decrease your triglycerides, decrease the rate of plaque development in your arteries, and may slightly decrease blood pressure.

Fatty fish like mackerel, lake trout, herring, sardines, albacore tuna and salmon are natural sources of Omega 3 fatty acids.

Famotidine (Pepcid)

Famotidine is used to treat ulcers of the stomach or intestines. It may be used to prevent intestinal ulcers from returning after treatment. This medication is also used to treat certain stomach and throat problems caused by too much acid.



Furosemide (Lasix)

Furosemide is a “water pill” (diuretic) that increases the amount of urine you make, which causes your body to get rid of excess water.

This medication also reduces swelling/fluid retention (edema), which can result from conditions such as congestive heart failure, liver disease, kidney disease or cardiac surgery. This can help to improve symptoms such as trouble breathing.

Lisinopril (Prinivil, Zestril)

This drug belongs to a group of medications called ACE inhibitors. It is used to treat high blood pressure (hypertension). It works by relaxing blood vessels, causing them to widen. High blood pressure reduction helps prevent strokes, heart attacks and kidney problems.

This medication is also used after an acute heart attack to improve survival, and is used with other drugs (e.g., “water pills”/ diuretics, digoxin) to treat congestive heart failure.

Magnesium Hydroxide (Milk of Magnesia)

This medication is used for a short time to treat occasional constipation. It is a laxative (osmotic-type) that is thought to work by drawing water into the intestines, an effect that helps to cause movement of the intestines.

This medication is also used to treat symptoms caused by too much stomach acid such as heartburn, upset stomach or indigestion. It is an antacid that works by lowering the amount of acid in the stomach.

Oxycodone (Roxicodone)

This medication is used to treat moderate to severe pain. It acts on certain centers in the brain to give you pain relief. Oxycodone is a narcotic pain reliever (opiate-type).

Potassium (K-Dur)

This medication is a mineral supplement used to prevent or treat low amounts of potassium in the blood. A normal level of potassium in the blood is important so that your cells, nerves, heart, muscles and kidneys work properly. Normal blood levels of potassium are usually achieved by eating a well-balanced diet. However, certain situations cause your body to lose potassium faster than you can replace it from your diet. These situations include treatment with certain “water pills” (diuretics), a poor diet or certain medical conditions (e.g., severe diarrhea especially with vomiting).

Propoxyphene-Napsylate/ Acetaminophen (Darvocet)

This combination medication is used to treat mild to moderate pain. Propoxyphene is a narcotic pain reliever (opiate-type) that acts on certain centers in the brain to give you pain relief. Acetaminophen is a non-narcotic pain reliever.

Protonix

Pantoprazole works by blocking acid production in the stomach. This medication is known as a proton pump inhibitor (PPI). Decreasing extra stomach acid can help relieve symptoms such as heartburn, difficulty swallowing, persistent cough and trouble sleeping.

Statins (Cholesterol-Lowering Drugs): Atorvastatin (Lipitor), Zocor, Crestor, Lescol, Mevacor, Pravachol

Statins are used along with a proper diet to help lower “bad” cholesterol and fats (e.g., LDL, triglycerides) and raise “good” cholesterol (HDL) in the blood. Statins work by reducing the amount of cholesterol made by the liver. Lowering “bad” cholesterol and triglycerides and raising “good” cholesterol decreases the risk of heart disease and helps prevent strokes and heart attacks.

Warfarin (Coumadin)

This medication is used to treat blood clots (such as in deep vein thrombosis-DVT or pulmonary embolus-PE) and/or to prevent new clots from forming in your body. Preventing harmful blood clots helps to reduce the risk of a stroke or heart attack. Conditions that increase your risk of developing blood clots include a certain type of irregular heart rhythm (atrial fibrillation), heart valve replacement, recent heart attack and certain surgeries (such as hip/knee replacement).

Warfarin is commonly called a “blood thinner,” but its more correct term is “anti-coagulant.” It helps to keep blood flowing smoothly in your body by decreasing the amount of certain substances (clotting proteins) in your blood.

Warfarin should be taken at the same time each day, preferably in the evening. If a dose of medication is forgotten, it can be taken later the same day. NEVER take a double dose the next day to make up for a missed dose.

You will be required to have your blood tested regularly. This is the only way to check if your dosage is right.

Avoid or limit alcohol to 1-2 drinks a day. Alcohol affects how your body interacts with Warfarin and may also cause bleeding of the stomach lining.

Avoid taking a full-dose aspirin (325 mg) and aspirin-containing products, unless directed by your physician.

Notify all your physicians, dentist and pharmacist that you are taking Warfarin.

Never take any over-the-counter medications or vitamin supplements without informing your physician. These can alter the effect of warfarin.

Keep your diet stable!

Diet and medications can alter the effect of warfarin on the blood. Vitamin K helps your blood clot and is found in many foods. You don't need to avoid these foods, but try to eat about the same amount of them each day.

Foods high in vitamin K include:

- Asparagus
- Coleslaw
- Sauerkraut
- Avocado
- Endive
- Soybeans
- Broccoli
- Kale
- Spinach
- Brussels sprouts
- Lettuce
- Swiss Chard
- Cabbage
- Collard, mustard and turnip greens

Herbal teas containing sweet clover, sweet woodruff, tonka beans and cranberry juice can interact with warfarin. Limit the amount of cranberry juice and herbal tea you drink to ½-1 cup per day.

If you add these foods to your diet, please tell your physician.

Stay alert and safe!

Warfarin thins your blood and keeps your blood from clotting so you need to protect yourself from injury and bruising.

Wear a medical alert bracelet.





SWEDISH
HEART & VASCULAR
INSTITUTE

500 17th Ave.
Seattle, WA 98122-5711
www.swedish.org