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 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.
The following videos contain additional guidance and support in preparing for your surgery.

Swedish Cardiac Surgery - Preparing for heart surgery

Mended Hearts of Puget Sound is here to enrich the lives of heart patients in the Puget Sound region through peer-to-peer support, education, & community

Mended Hearts is made up of heart patients, their families, & others impacted by heart disease. Members listen, share their experiences, learn from healthcare professionals, and volunteer to talk to other heart patients about what they may face, including lifestyle changes, depression, recovery, & treatment.

Please join us for our monthly virtual Mended Hearts Chapter Meeting

Last WEDNESDAY of the Month | 6:30-7:30 PM
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
Care Coordination (Discharge Planning) .........................206-320-2760
Health Information Management (Medical Records)..........206-320-3850
Swedish Cardiovascular Wellness Services .....................206-320-3320
Customer Service Department (Billing) ............................206-320-4476
...................................................................................or 1-888-294-9333

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 also 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. However, you may not be able to receive direct calls, especially in the intensive care unit.

While you are in the intensive care unit, designate one spokesperson to call intensive care to get an update or obtain information from the nurse about your medical condition, using the password chosen by you before the surgery. Only your spokesperson, with the password, will be able to obtain information about your medical condition from your care providers in the hospital. If you are able to speak, the call may be forwarded directly to your room for you.

In the telemetry unit, your family and friends can call you directly at the number shown on your white board, hanging in your hospital room.

Television
There is a TV in each room with multiple channels.

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 is located on the 1st floor of the hospital. Dining room hours and availability may vary. Coffee is available at the Dining Room or the Starbucks located at our main entrance.

Patients may order from the À La Carte Dining Service menu, for food to be delivered to their room.

Reflection Room and Spiritual Care
Find a moment of quiet solitude in our Reflection Room, located on the main floor between Starbucks and the cafeteria. Spiritual Care chaplains are also 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.
Parking rates are based on the duration of your parking.

<table>
<thead>
<tr>
<th>Duration</th>
<th>Rate</th>
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<tbody>
<tr>
<td>0 - 0.5 hour</td>
<td>Free</td>
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<tr>
<td>0.5 - 1 hour</td>
<td>$6.00</td>
</tr>
<tr>
<td>1 - 2 hour</td>
<td>$8.00</td>
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<tr>
<td>2 - 4 hour</td>
<td>$12.00</td>
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<tr>
<td>4 - 6 hour</td>
<td>$15.00</td>
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<td>6 - 8 hour</td>
<td>$18.00</td>
</tr>
<tr>
<td>8 - 24 hour</td>
<td>$20.00</td>
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<tr>
<td>Lost Ticket</td>
<td>$20.00</td>
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</table>

Parking hours and rates are subject to change without notice.

Plaza Garage
- Short-term parking (less than 24 hours) 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 (less than 24 hours) and long-term (more than a day) parking is available in the 16th Avenue Garage
- Enter from 16th Avenue between Jefferson and Cherry streets
- The 16th Avenue Garage accepts credit cards or cash when the garage is attended. Credit card only when garage is unattended.
- Hours: 24 hours a day
Accommodations

Local Hotels
Many local hotels are available close to the hospital, with a few listed below for your convenience. Please check hotel websites for current information.

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Website</th>
<th>Patient Discount</th>
<th>Shuttles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inn at Virginia Mason</td>
<td>innatvirginiamason.com</td>
<td>Yes, approx $20</td>
<td>No</td>
</tr>
<tr>
<td>100 Spring Street</td>
<td></td>
<td>savings</td>
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</tr>
<tr>
<td>Seattle, WA 98104</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>206-583-6453</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver Cloud Inn</td>
<td>silvercloud.com</td>
<td>Yes, depending on</td>
<td>Shuttle to First Hill location, 7am-every 1/2 hour - 10:15pm, Call on</td>
</tr>
<tr>
<td>1100 Broadway</td>
<td></td>
<td>availability and season</td>
<td>on demand from First Hill</td>
</tr>
<tr>
<td>Seattle, WA 98122</td>
<td></td>
<td>5% - 10%</td>
<td></td>
</tr>
<tr>
<td>206-325-1400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homewood Suites by Hilton</td>
<td>homewoodsuites3.hilton.com</td>
<td>Yes, depends on availability, season, length</td>
<td>No</td>
</tr>
<tr>
<td>1011 Pike Street</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seattle, WA 98101</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>206-682-8282</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crowne Plaza Seattle Downtown</td>
<td>chotelseattle.com</td>
<td>Yes, depends on availability, season</td>
<td>No</td>
</tr>
<tr>
<td>1113 6th Ave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seattle, WA 98101</td>
<td></td>
<td></td>
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<tr>
<td>206-464-1980</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The Baroness Hotel</td>
<td>baronnesshotel.com</td>
<td>Yes, depends on availability, season</td>
<td>No</td>
</tr>
<tr>
<td>1005 Spring Street</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Seattle WA 98104</td>
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<tr>
<td>206-583-6453</td>
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<tr>
<td>Hotel Sorrento</td>
<td>hotelsorrento.com</td>
<td>Yes, fluctuates depending on occupancy</td>
<td>Only one block from First Hill and their shuttles. 10 min</td>
</tr>
<tr>
<td>900 Madison Street</td>
<td></td>
<td></td>
<td>walk to Cherry Hill</td>
</tr>
<tr>
<td>Seattle, WA 98104</td>
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<td></td>
<td></td>
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<tr>
<td>206-622-6400</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hotel</td>
<td>Website</td>
<td>Patient Discount</td>
<td>Shuttles</td>
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</tr>
<tr>
<td>Spring Hill Suites by Marriott 180 Yale Ave Seattle, WA 98101 206-254-0500</td>
<td>marriott.com</td>
<td>Contract with Providence St Joseph. Show something to prove family member is in hospital. Fluctuates with season and availability</td>
<td>No</td>
</tr>
<tr>
<td>First Hill Apartments         206-621-9229</td>
<td>firsthillapt.com</td>
<td>Yes</td>
<td>8am-to 4:30pm Parking $18.00/night</td>
</tr>
<tr>
<td>Kimpton Hotel Vintage Seattle 1100 5th Ave Seattle, WA 98101 206-624-8000</td>
<td>hotelvintage-seattle.com</td>
<td></td>
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<tr>
<td>Sheraton Seattle Hotel       1400 6th Ave Seattle, WA 98101 206-621-9000</td>
<td>sheratonseattle.com</td>
<td>No contracts with Providence Swedish</td>
<td>No</td>
</tr>
<tr>
<td>Best Western Plus Pioneer Sqr 77 Yesler Way Seattle WA 98104 206-340-1234</td>
<td>pioneersquare.com</td>
<td>Yes, depends on availability, season</td>
<td>No Parking is $25.00</td>
</tr>
<tr>
<td>Grand Hyatt Seattle           721 Pine Street Seattle, WA 98101 206-774-1234</td>
<td>seattle.grand.hyatt.com</td>
<td>Contract with Prov St Joseph - availability</td>
<td>No</td>
</tr>
<tr>
<td>The Westin Seattle            1900 5th Ave Seattle, WA 98101 206-728-1000</td>
<td>westinseattle.com</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Hotel</td>
<td>Website</td>
<td>Patient Discount</td>
<td>Shuttles</td>
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<tr>
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<tr>
<td>La Quinta Inn &amp; Suites</td>
<td>lq.com</td>
<td>20% Discount</td>
<td>No</td>
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<tr>
<td>2224 8th Ave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seattle, WA 98121</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>206-624-6820</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Holiday Inn Seattle Downtown</td>
<td>lhg.com</td>
<td>No Swedish contract.</td>
<td>No</td>
</tr>
<tr>
<td>211 Dexter Ave N</td>
<td></td>
<td>No Prov St Joseph</td>
<td></td>
</tr>
<tr>
<td>Seattle, WA 98109</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>206-728-8123</td>
<td></td>
<td></td>
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<tr>
<td>Gaslight Inn B&amp;B</td>
<td>gaslight-inn.com</td>
<td>20% off rates</td>
<td>No</td>
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<tr>
<td>1727 15th Ave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seattle, WA 98122</td>
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<tr>
<td>206-325-3654</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Bed &amp; Breakfast Inn Seattle</td>
<td>seattlebednbreakfast.com</td>
<td>Military discounts</td>
<td>No</td>
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<tr>
<td>1808 E Denny Way</td>
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</tr>
<tr>
<td>Seattle, WA 98122</td>
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<tr>
<td>206-412-7378</td>
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<tr>
<td>11th Avenue Inn B&amp;B</td>
<td>11thavenueinn.com</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>121 11th Ave E</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Seattle WA 98102</td>
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<td></td>
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</tr>
<tr>
<td>206-720-7161</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nexus Hotel</td>
<td></td>
<td>King Room - $108.00</td>
<td>Shuttle to First Hill</td>
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<tr>
<td>2140 N Northgate Way</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Seattle, WA 98133</td>
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<td></td>
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<tr>
<td>206-365-0700</td>
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</tbody>
</table>
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 patient registration, your doctor’s office and the nurses station on your floor.

Please note that it takes time to get all of the medical records.

**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.

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**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**

Do not bring your medications with you. You only need to bring a list of your medications, including over-the-counter and herbal supplements, 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
One of the best ways to have a great outcome from surgery is to be well prepared. Now that you’ve scheduled your surgery, it is important to begin preparing for the procedure as soon as possible. Your efforts before surgery can have a positive impact on your recovery after surgery.

- You will be coming to Swedish Cardiac surgery clinic for a presurgical appointment. You will meet with a nurse and watch a video. You will be instructed about pre-op shower, medications and discharge planning. You will be directed to different appointments for lab draws and other testing. Our team will coordinate to have your day as smooth as possible.

- To help speed your recovery, it is important to enter the operating room in the best condition possible, within the limits of your cardiac disease. A light amount of fitness activities can help maintain muscle mass. Walking regularly and sit-to-stand exercises can maintain leg strength, making it easier to get out of bed and perform daily activities after surgery. These should be performed hourly. For example: on the hour walking at 9:00, 10:00, 11:00... and sit to stand at 9:30, 10:30, 11:30 on the half hour. Work on walking further each day, even if it’s just one extra step and similarly, try to add one extra sit-to-stand (from a firm chair) every day. Please note, if at any point during your workout, you begin to feel faint, dizzy or have physical discomfort, you should stop immediately and consult a medical professional.

- It is important to pay extra attention to nutrition. What you eat, and how much you eat, can help you do better during and after surgery and treatment. Please refer to page F-1 for further guidelines.

- 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. Dental clearance before cardiac valve replacement surgery is necessary to check for and eliminate any present or potential sources of infection, which may enter the bloodstream and travel to the surgery site, causing subsequent complications such as infective endocarditis, which is potentially life-threatening.

- Here are some items you will need after surgery, purchase or borrow as needed.
  - A scale to monitor your weight daily after surgery
  - A thermometer to monitor your temperature daily after surgery
  - You may need a shower chair if you are unable to stand to take a shower
  - A heating pad to relieve muscular pain if needed

- Consider bringing a music device with you to the hospital, along with some of your favorite music. This can help you relax before and after your surgery and help “tune out” the hospital environment.
Women WILL NEED a front-closing sports bra, particularly if they have large breasts. This will help reduce the stress on your incision after surgery. The post-op unit in the hospital does have very generic front-closing bras available. Please keep in mind these are not the most comfortable.

After your surgery you will need to protect your Sternum/breastbone when getting in and out of bed and standing up and sitting down. Practice the techniques on the “Activity page” prior to surgery. See Activities Guidelines located on page G1.

Practice taking a long slow breath in through the mouth and holding it. You can also practice with your incentive spirometer. See page G-7. An important part of recovery is exercising your lungs.

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 the family members and friends.

While you are in surgery, the Anesthesia team will call your designated spokesperson to provide updates on how surgery is going.

Once you are moved to the Intensive Care Unit (ICU), the spokesperson will be asked to set up a password. Using this password, doctors and nurses will communicate with the spokesperson.

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

Establish an Initial Discharge Plan
Things to Consider
At discharge, do you anticipate returning home or going to a skilled nursing facility?

Do you have family or friends that can stay with you most of the time for at least 7 to 10 days? You will need their assistance with activities of daily living and making sure your recovery post-operatively is going well.
During the immediate recovery period, your progress will be assessed daily. We will help you to choose the safest option to transition out of hospital.

If you anticipate going to a skilled nursing facility (SNF), it is important for you to call your insurance carrier in advance of your hospital stay. They will be able to verify your SNF benefit and provide you with a list of contracted facilities. Your insurance carrier will make the determination about whether you qualify for a SNF level of care. Your skilled nursing facility options will depend on your insurance and bed availability. Once you leave ICU, the Case Managers and Nurses on the Telemetry Unit can assist you with your discharge plans.

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 four weeks after surgery. You will most likely need assistance getting in and out of bed due to surgical precautions for at least a few days.

If it is safe, transportation from the hospital to home may be provided by a family member or friend. Please identify the friend or family member providing transportation before your admission.

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

- Review your presurgical calendar and instructions, as well as the information in this booklet. Make sure to follow all instructions related to stopping medications and taking presurgical showers.

Call the Swedish Cardiac Surgery office if you have any questions or concerns.

- Call the Swedish Cardiac Surgery office if you develop a cold, fever, persistent cough, sore throat or other illness before surgery. Try to stay home the two weeks before surgery, to avoid getting an infection from exposure. If you have any infections, your surgery may need to be postponed.

- Select your clothes for discharge from the hospital. Loose fitting clothing is preferred. Button up shirts and t-shirts are acceptable.

- Review your discharge plan with a nurse:
  - 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 hospital?

Preoperative Shower Instruction

- You will be showering two times - once on the evening before and again on the morning of surgery, using your normal facial cleanser (if applicable) and shampoo, and your Chlorhexidine antimicrobial wash.

- Shampoo your hair and use your facial cleanser (if applicable).

- Rinse away the shampoo and facial cleanser.

- Turn away from the water stream or turn off water.

- With your hands, wash your body from your chin down with the Chlorhexidine antimicrobial wash. Your washing will last about 2-2 1/2 minutes.
- Do 15 seconds of focused washing on the following areas: both sides of neck, sternum or area of planned surgery (may be either or both sides of chest for minimally invasive procedures) the top of your abdomen, both sides of your groin, and your forearms and/or inner thigh down to knee if planned for graft harvest.

- Spend the last 30 seconds of your shower washing the rest of your body with the Chlorhexidine antimicrobial wash.

- Step back into shower or turn water back on and rinse off. Do NOT use any other soaps or lotions after you’ve used the Chlorhexidine antimicrobial wash.

- Use a clean towel to dry off.

- Dress yourself in clean clothes or pajamas. Maintain a clean sleeping area by keeping pets outside of the bed while your incision is healing.

- Don’t forget dental hygiene! Brush your teeth well twice a day leading up to your surgery. You will use the Peridex mouthwash the night before and morning of surgery.

**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. Refer to “Pre-op shower instructions” on page B-3

- Brush your teeth and rinse with the Peridex mouthwash.

- Place clean sheets on the bed and wear clean clothes to sleep the night before surgery.

- 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 Morning of Surgery**

- Shower with the antibacterial soap provided. Refer to “Pre-op shower instructions” on B-3.

- 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
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 all medications
- Toothbrush, toothpaste and floss
- Incentive Spirometer (breathing exercise device) given to you by the Swedish Cardiac Surgery staff at the preoperative appointment.
- A change of clothes will be needed prior to discharge.
- 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

If you have traveled more than an hour to come to the hospital for your surgery, please bring your daily medications with you. Your surgery may be cancelled due to an emergency, if that is the case, you will be rescheduled to another day. If that happens, we want to make sure you have your necessary meds with you.

Make Arrangements For

- Care for your pets & home while you are in the hospital.
- Someone to take you to & from the hospital.
- Someone to pick up your medications after you leave the hospital.
- Someone to be with you the first few times you walk outdoors.
- Speak with your employer to be off work & request any paperwork for leave of absence to be completed by Cardiac Surgery Clinic.

Tobacco Use Policy

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. When outside of Swedish property, Washington state law only allows smoking on public property when the smoker is 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.

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

Benefits of Not Smoking

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

Continuing advances in minimally invasive heart valve surgery are providing a wide range of benefits to Swedish patients, including faster recovery times and scarring that is much less visible. Here are a few examples:

- Mitral valve repair or replacement
- Aortic valve replacement
- Tricuspid valve repair or replacement
- Atrial septal defect repairs
- Maze procedure for atrial fibrillation
- Some cardiac tumor excision.

Are you a Candidate for Minimally Invasive Heart Surgery?

All Swedish cardiac patients who require aortic valve replacement, mitral valve repair, mitral valve replacement, tricuspid valve repair, tricuspid valve replacement as well as atrial septal defect repair are considered candidates for minimally invasive cardiac surgery. Extensive evaluation determines which candidates ultimately undergo a minimally invasive procedure.

Benefits of Minimally-invasive Heart Surgery

Thousands of minimally invasive cardiac surgeries are performed each year in the United States, providing a number of benefits to patients. One of the most important is avoiding a sternotomy, or open-chest surgery. Surgeons perform sternotomies by making an eight- to 10-inch incision in the chest in order to reach the heart. In contrast, minimally invasive surgical procedures are done through much smaller incisions, resulting in:

- Reduced bleeding
- Better visualization for the surgeon for a more accurate repair
- Fewer infections after surgery
- Less pain and fewer complications
- A smaller amount of pain medications, which allows for a quicker healing process.
- A quicker return to everyday activities — many patients can resume their normal activities in two to four weeks, instead of the much longer recovery time that may be required with open-chest surgery. (All patients, however, should talk to their doctor about returning to pre-surgery activity levels as well as their readiness to drive).

FAQs about Minimally-invasive Heart Valve Surgery

Does Minimally Invasive Surgery Really Shorten the Recovery Time and Mean Less Pain?

Yes. One of the advantages of minimally invasive surgery is a smaller incision, which means less surgical wound to heal. When there is less healing, your body can heal much faster and this essentially reduces the recovery period compared to conventional open surgery. You will still experience some pain at the site of the incision, but because the incision was smaller there will most likely be less pain and it will go away more quickly.

Are There any Disadvantages to Minimally Invasive Cardiac Surgery?

The biggest disadvantage is that, unfortunately, not everyone is a good candidate for a minimally invasive cardiac procedure. However, surgeons are still discovering new ways to apply the techniques of minimally invasive cardiac surgery, so with time more and more people will be able to benefit from the procedure. Also, minimally invasive cardiac surgery may require a longer time in the operating room, but that is offset by reduced blood transfusions, a shorter time in the hospital and a speedier recuperation.

When Can I Return to Most of my Normal Day-to-Day Activities, Including Driving a Car?

Only your surgeon can give you a precise answer, and that will be based on your medical history and your specific surgical procedure. But as a rule of thumb, patients who have undergone a minimally invasive cardiac procedure are usually able to resume most or all of their normal, everyday activities - including driving - within two to four weeks after their surgery. Returning to strenuous activities can begin as early as four to six weeks.
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 at 500 17th Ave, Seattle WA 98122. You will then be directed to a waiting 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.
What Family and Friends Can Expect on the Day of Surgery

Friends or family may drop you off at the main entrance of the hospital. One person may stay with the patient until it is time to go to the operating room.

Instructions for Patient and Patient Spokesperson

The spokesperson should tell the anesthesiologist how to contact them during the patient’s surgery.

The spokesperson will receive updates via their personal 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 the spokesperson has not received an update for greater than four hours, please contact 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.

It takes approximately ½ hour to settle the patient in the intensive care unit after surgery.
Visiting Guidelines for the Intensive Care Unit (ICU)

Please refer to updated Visitor policy at www.Swedish.org

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.

The patient’s spokesperson may call for a condition report 24 hours a day. Please note that the staff change hours are between 7am -8am and 7pm -8pm and not a good time for nursing staff to receive calls. Also note that in the Cardiac Intensive Care Unit (CVICU), the doctors and other multi-disciplinary team members, make their rounds between 8:30am -10am and that may not be the best time to call or visit.

The Cardiac Intensive Care Unit phone is 206-320-2222.

Flowers, plants and balloons are not allowed in the Intensive Care Unit (ICU).

Protect your loved one. Please apply antibacterial 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.

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 their 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 their 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.

Please check the visitor policy updates regularly on the Swedish website www.swedish.org or by scanning code below.
Cardiovascular Intensive Care Unit (ICU or CVICU)

Waking Up After Surgery

After surgery you will be taken to the Cardiac Intensive Care Unit (CVICU). When you first arrive, you will still be asleep from anesthesia with a breathing tube in place. Your wrists may have soft mitts to limit the movement of your hands when you first wake up after surgery. This ensures that you don’t pull out any lines or tubes when you first wake up. The nurse will remove these mitts 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. Some patients may be concerned about waking up with the breathing tube in. The nurses and doctors try to take your breathing tube out when you don’t need it anymore. The medications that are used to put you in a sleep-like state during surgery will start wearing off and you need to demonstrate that you are able to breathe on your own before the tube can be removed.

Once your breathing tube is removed, you should begin to use your spirometer (breathing exercise device) followed by coughing exercises every hour while you are awake. These breathing exercises (on page G7) 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.

You 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 continuous pain medication through your IV. Once your breathing tube is out, you will be given pain medication by mouth, and your 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.

While working with physical and occupational therapies, you may experience an increase in discomfort. Please wait until you’ve completed therapy and have had a moment to rest to reassess your baseline level of pain.

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.

![Pain Intensity Scale](image-url)
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.

Visitors can access the telemetry unit, by taking 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 may 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 exercise 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 “pursed lip” breathing as you ambulate. Ask your respiratory 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 to level 4.

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. Refer to “Activity Guideline” on page G-1

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 after surgery until your therapy goals have been met or you have a caregiver to safely assist with functional tasks or supervise as needed.

Daily Shower

To prevent infections, you will be taking daily showers or Chlorohexidine wipes, depending on your medical condition. Your nurse will assist you either way.

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.

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.

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.

*It is important to have your bowels moving before your discharge.*

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

A Registered Dietitian (RD) or Diet Technician (DTR) is available at any time during your stay to discuss any concerns or questions you may have regarding a heart healthy diet or strategies for managing acute post operative issues including GI complaints or poor appetite. Please ask your nurse to consult the nutrition department if any needs arise. If no concerns, an RD or DTR will automatically meet with you if you remain in the hospital for 7 days.

**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 anti-embolism stockings (commonly known as TED stockings) to reduce swelling. These will be provided in the hospital, but you may choose to buy at the pharmacy if you need an extra pair.

**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 primary care provider. 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.

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

Discharge Planning
Up-to-date healthcare research has placed a focus on transitioning patients home as soon as safely possible after their procedures. Patients appear to be more successful and heal better when they recover in their own home. Patients often connect with family or friends who can offer support during recovery. While each person’s recovery is different, it is important for you to consider more than one option for your post-procedure recovery location.

Discharge planning should start prior to your surgery to optimize and facilitate your care. If you are considering a skilled nursing facility, home health or any option that may require insurance authorization, we would advise you to contact your insurance carrier before admission to verify which home health or skilled nursing facility is contracted with your insurance. Your insurance will make the determination about whether you qualify for the service. Due to the pandemic and changes in acceptance requirements, this has made it exceptionally difficult to find a placement (bed) in a skilled nursing facility or a home health agency.

Bed availability at skilled nursing facilities changes daily. If you are in need of a skilled nursing facility at discharge, the Case manager will contact your preferred facilities to see which facility has beds available and is covered by your insurance. You will be discharged to the facility that has an available bed for you.

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

The discharge plans will be further defined after your surgery and your ability to take care of yourself. The recommendations of Physical therapist, occupational therapist and your insurance carrier will determine your placement as well as home health help.

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. If it is safe, transportation from hospital to home may be provided by family or a friend. Please identify the family member or friend who can provide transportation before your admission.

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 qualify to receive 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. You may qualify for home occupation therapist (OT), physical therapist (PT) and speech therapist (SLP) services if you are ‘home bound’ and have skilled needs.

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 Providence Home Health 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 and provide resources for obtaining the appropriate equipment.

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 the pharmacy of your choice. Your personal pharmacy may not carry all the medications prescribed. You may also be given paper prescriptions at discharge. Take these to your pharmacy to be fulfilled.

Only take the medications listed on your discharge medication list.

Discharge Checklist
- Do I have a ride arranged? Please provide contact information for your ride or transportation at discharge.
- 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 and night for 7-10 days after surgery.
- Have caregivers received training?
- 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? Swedish Cardiac Clinic will assist you in setting up your first appointment. This should be listed on your discharge paperwork.
Have I made my follow-up appointments?
Bring this booklet with you to your follow-up appointments.
You will follow up with the cardiac surgery team in 3 weeks, the cardiologist in 4 weeks and your primary care provider in 4 - 6 weeks after surgery.

Follow-up Appointments:

<table>
<thead>
<tr>
<th>Role</th>
<th>Phone Number</th>
<th>Appointment Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac Surgeon</td>
<td>206-320-7300</td>
<td></td>
</tr>
<tr>
<td>Swedish Cardiac Surgery Clinic, 1600 E. Jefferson St., Suite #110, Seattle, WA 98122</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiologist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary-Care Physician</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prottime/INR Lab Test</td>
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</tbody>
</table>

The Swedish Cardiac Surgery office is located in Suite 110 on the 1st floor of Jefferson Tower at the Swedish Cherry Hill campus at 1600 E. Jefferson St.
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.
### Daily Activities Chart — A Record of Your Recovery

<table>
<thead>
<tr>
<th>Date</th>
<th>A.M. weight before breakfast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Call if weight gain or loss of four pounds or more in two days</td>
</tr>
<tr>
<td></td>
<td>Call if higher than 101 degrees Fahrenheit</td>
</tr>
<tr>
<td></td>
<td>Daily shower with antibacterial soap</td>
</tr>
<tr>
<td></td>
<td>Check incisions Call if redness, drainage or increased warmth</td>
</tr>
<tr>
<td></td>
<td>Breathing exercises 10 times an hour Spirometer and pursed lip breathing</td>
</tr>
<tr>
<td></td>
<td>Take medications as prescribed</td>
</tr>
<tr>
<td></td>
<td>Rest between activities and meals</td>
</tr>
<tr>
<td></td>
<td>Walk 4-6 times a day</td>
</tr>
<tr>
<td></td>
<td>Eat 4-6 small meals a day</td>
</tr>
<tr>
<td></td>
<td>TED anti-embolism stockings (if received) on during the day, off at night</td>
</tr>
<tr>
<td></td>
<td>Monitor blood sugar if diabetic</td>
</tr>
</tbody>
</table>
Who to call if you have an unexpected problem after surgery

Cardiac Surgery Clinic nurses are available by phone from 8:00 a.m. to 5 p.m. weekdays. Call 206-320-7300.

After 5 PM and weekends the call will be forwarded through the answering service to the surgeon on call.

If you have a non-urgent question, feel free to use MyChart to send us a message at https://mychartwa.providence.org

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 120 beats per minute, especially if you are short of breath
- Shortness of breath NOT relieved by rest
- Fever of 101 degrees Fahrenheit or more 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. Weight is expected to fluctuate after cardiac surgery. Call your nurses to provide more details.
- Worsening ankle swelling or leg pain
- Sharp pain when taking a deep breath
- Temperature of 101 degrees Fahrenheit or greater, 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 more than 120 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. For a detailed explanation of how to move and keep your precautions refer to the Activity Guidelines on page G-1.

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. For details, see the Progressive Walking Program chart in the Activity Guidelines on page G-1.

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 on page G-7.

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. Outpatient cardiac rehabilitation after open heart surgery improves patient’s exercise capacity by 35% and reduces body fat by 6%.

**Bathing**

Until your incision is fully healed: Do NOT take a bath, go swimming, or sit in a hot tub or sauna. Your incision should not be submerged.

**Dressing and Grooming**

Your occupational therapist will show you how to do this safely. Refer to “Activities Guidelines...” section for more assistance.

**Travel**

Wait until after your post op visit to drive. This is about 3 weeks post-operatively.

Driving may usually be resumed approximately four weeks after surgery if you are no longer taking narcotic pain medications (Oxycodone, Percocet). You may ride as a passenger at any time. Please sit in the back seat as there are air bags in front seats. Please wear your seatbelt. Put the seat belt over your issued cardiac pillow to protect your incision and chest.

If riding for long distances, stop every hour or so and walk around for 10-15 minutes to prevent clots in the legs, as you will be at higher risk for approximately a month after surgery.

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 each hour to prevent a blood clot in the legs. Wear your TED anti-embolism 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. Please do not use ibuprofen after your surgery, as it may increase your risk for post-surgical bleeding complications.
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.

As your sternum is still healing, you will need to sleep on your back for 4-6 weeks after surgery. Sometimes a pillow wedge is beneficial if you find it difficult to sleep flat on your back.

**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 exercise device) to exercise your lungs 10 times per hour while awake, daily for at least two weeks after your surgery.

Refer to page G-7 for instructions on how to use the Incentive Spirometer or breathing exercise device.

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.
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.

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, nausea or vomiting, call your primary care provider who manages your diabetes.

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. If supplemental fiber taken, be sure to get enough fluids, otherwise fiber supplement can be constipating.

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.

Shower daily; and clean your incision(s) using the antibacterial soap until they are completely healed.

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 a small band aid-like strip along your incision (Steri-Strips), do not pull them off. These strips will fall off by themselves, usually within 10-14 days. Minimal oozing from the site of the strip is normal.

You may have a small bump or swelling at the top of your incision. This will gradually return to normal in 2-3 months.
Once you are home, make sure you’re changing your bed linens every 3rd day until your incisions are fully healed.

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.

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 each morning at the same time before you eat breakfast.

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
Patients should wear a front closing (zip up) sports bra after surgery. This support is especially important for patients with large breasts because it reduces the tension on your incision.

The hospital has a limited supply of bras, but may not have all sizes, so you should bring your own. Make sure the bra you get does not have underwire.

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.

At discharge, our goal is to minimize use of narcotic pain medications. Most patients require pain medications 2-3 weeks post operatively and gradually transitioning to Tylenol by week 4. If you continue to need a pain medication longer than 4 weeks, then we will need to assess your need with an examination to evaluate. Please note if you require a narcotic medication refill allow 48 hours of time for a refill request and you will be required to pick up a hard copy of prescription from our 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/INR (Protime or ProthrombinTime/International Normalized Ratio) 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.). You will need to be established with an Anticoagulation Clinic who will coordinate your lab draws and will provide the dosing instructions.

The Swedish Cardiac Surgery nurse will help you establish with an Anticoagulation clinic.

If you are ever unsure about how much Coumadin to take or if you miss a Coumadin dose, call the Anticoagulation clinic. 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 or registered dietitian
- Read the Warfarin (Coumadin) section in this book under “Commonly Prescribed Medications” on page H-1
- Visit the Web site: WebMD Anticoagulants: 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 at least six months after your surgery. Planning ahead, if you have the chance, it is recommended you have a dental cleaning before your surgery to reduce the risk of needing urgent dental care after 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.

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
- Unhealthy diet
- High-fat diet
- High cholesterol
- Stress
- Diabetes
- Being overweight
- Physical inactivity
Diet
The Swedish Heart & Vascular Institute recommends that all patients with heart disease follow the Mediterranean Diet. These are not weight reduction “diets” but rather eating patterns that have been proven to reduce the risk of heart attacks and strokes as well as diabetes and some cancers.

**Diet Overview**

In the last decade there has been increasing debate on what dietary pattern is best for heart disease. It is a confusing landscape out there, with diets like Paleo, Keto, and Plant Based/Vegan diets getting a lot of media attention. Historically, research has been directed to specific nutrients that influence coronary artery disease, including saturated fat, mono or polyunsaturated fats, omega 3 fatty acids and carbohydrates. Rather than focusing on individual nutrients, a more beneficial and practical approach to eating may be to focus on the overall totality or quality of the diet.

Ideally, a diet that includes whole grains, fruits and vegetables, nuts, low-fat dairy products, eggs, poultry and fish, and limits red meat, fast food, fruit juice, highly processed salty and sugary foods and beverages will be the most beneficial.

Eating a high quality, whole food diet is one of several lifestyle modifications that can reduce the risk of coronary heart disease, lower LDL cholesterol (specifically the small dense molecules associated with plaque development) and reduce blood pressure.

**The Importance of Protein**

Protein is the most important macronutrient for healing wounds, supporting the immune system, and maintaining muscle mass. Include 6 ½ ounce-equivalents or more per day.

Include protein with every meal and snack. Focus on eating protein first at mealtimes when you are the most hungry. Eating protein throughout the day has been shown to better support the maintenance of muscle mass, which keeps you strong and independent. Many people don’t get enough protein at breakfast. To increase protein earlier in the day, consider adding nuts and/or dairy or soy milk to oatmeal - eggs and Greek yogurt are also good sources. A smoothie with yogurt and a scoop of whey protein powder with berries is also a convenient choice on the go.

- Protein Options include: lean meat, poultry, fish, eggs, low-fat dairy (such as yogurt, cottage cheese and milk), nuts and nut butters, beans, lentils, quinoa, protein powder and nutrition supplements such as low-sugar Boost or Ensure.

- Speak with your Registered Dietitian for more information about serving sizes, additional recommendations on protein sources, and what amount of protein is appropriate for you.
Fruits and Vegetables for Fiber, Vitamins and Minerals

Include three or more servings (1 serving = ½ cup) of fruits and three or more servings of vegetables per day (more is better) are naturally free of saturated fat, and reduce inflammation in the body. Fruits and vegetables in a variety of colors provide different nutrients. Aim for a “rainbow” variety each day.

Benefits of Fiber:

Increasing fiber in your diet leads to a reduction of all causes of death, including stroke and ischemic heart disease. It improves blood sugar management from fiber slowing digestion and absorption, helping to keep you full for a longer time. Fiber is important for the mucosa or lining of the intestines. Without enough fiber, the lining can weaken, contributing to inflammation, which is a risk factor for heart disease. Fiber is also a prebiotic food and helps maintain healthy gut bacteria. Without enough fiber, the healthy gut bacteria can’t survive, and unfavorable bacteria can take their place, contributing to heart disease.

Restrict Saturated Fats

Eating too much saturated fat, especially when not eating enough fiber, vitamins and mineral from whole grains, fruits, vegetables, beans, nuts and seeds can raise your blood cholesterol and increase your risk for heart disease and stroke.

The majority of saturated fat comes from animal products such as beef, lamb, pork, poultry with skin, butter, cream, cheese and other whole fat dairy products. Plant foods such as coconut, coconut oil, palm oil, palm kernel oil and cocoa butter also contain saturated fat. Limit the amount of saturated fats to 10% of your total daily calories.

Saturated fats are found in many fried foods and baked foods such as fast food, pastries, pizza dough, pie crust, cookies, doughnuts, muffins and crackers.

Replace Saturated with Unsaturated Fat

Include fish rich in Omega-3 fatty acids at least twice per week. Omega-3 fatty acids are healthy fats that may help lower cholesterol levels and support heart health.

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

Alpha-linolenic acid is another type of Omega-3 fatty acid that comes from plant foods. Regularly include foods high in alpha-linolenic acids.

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
- Chia and Hemp seeds
- Hemp oil
Fish oil supplementation has shown mixed results in large meta-analysis. The most current evidence suggests there may be some benefit to cardiac health and reducing risk for heart attack when fish oil is supplemented at higher than previously recommended doses.

If you find it hard to eat enough omega-3 foods in your diet, fish oil supplementation could be beneficial. It is recommended to discuss supplementation with your dietitian, pharmacist or doctor prior to starting, given the risk of interaction with other medications.

A Note about Dietary Cholesterol
As of 2015, the Dietary Guidelines for Americans removed the recommended daily limit on dietary cholesterol. It is no longer believed there is a strong influence between dietary cholesterol and blood cholesterol. However, generally foods higher in dietary cholesterol are also higher in saturated fat (dairy products, meats, etc) so by limiting saturated fat you are also limiting dietary cholesterol. Egg yolks and shellfish are an exception, as they are low in saturated fat and therefore do not need to be limited. In fact, egg yolks and shellfish are recommended as good sources of protein and additional vitamins and minerals.

Eating adequate fiber from whole intact plant foods like fruits, vegetables, whole grains, beans, nuts and seeds helps enable the body to get rid of cholesterol when it’s done with it. Not eating enough fiber means your body will hold on to the cholesterol while it continues to make more.

Overweight Patients
- Obesity is a complicated condition that can be related to many factors, not just eating too much. Weight gain over time can be related to disruption to healthy gut bacteria (from taking antibiotics or from not eating enough fiber), poor sleep habits and sleep deprivation, cumulative life and work stress, and history of weight loss dieting. While weight loss is often recommended to decrease risk factors for chronic diseases such as diabetes and heart disease, engaging in health promoting behaviors is beneficial regardless of body size. It has been shown that sustained physical activity is associated with substantial risk reduction independent of weight loss. Weight loss diets are not recommended immediately after surgery until you are healed, well nourished, and able to participate in physical activity to preserve muscle mass. Talk to your doctor or a Registered Dietitian about a weight loss plan that is healthy and appropriate for you.
Exercise
Activity Guidelines for Post Open Heart Surgery Patients

After your surgery you will need to protect the site of your incision, your sternum, when you begin to resume your daily activities. You can protect your sternum by following “sternal precautions” and performing activities following “move in the tube”.

Move in the Tube

“Move in the tube” refers to the concept of keeping your upper arms glued to your ribcage as if they were inside an imaginary tube around your trunk. You should move as if a large paper towel tube was slid over your body down to your elbows. This method of moving avoids excessive stress to the sternum.

As long as you keep your arms inside the tube you can safely perform load-bearing activities immediately after surgery such as: pushing off to stand and pushing up to a sitting position. Your therapist will review specifics after your surgery.

However, you may reach “out of the tube” with your arms when performing non-load-bearing activities (e.g. toilet hygiene, washing your hair and scratching your back).

Listen to your body – if it hurts, don’t do it.

In rare situations you may be put on more strict precautions. If this is so, your surgeon and therapist will review your specific precautions.

There is no time requirement for staying “in the tube”. Let pain be your guide when performing load-bearing activities “outside the tube”. Patients generally feel they can return to most activities in 8-12 weeks.
How To Move

*Bed Mobility*
1. Hug your pillow and use your legs to roll onto your side.

2. Put your feet over the side of the bed and use your trunk muscles to raise your truck to a sitting position. Another person can gently assist you to sit up if you need help.

*Sit to Stand*
1. Scoot to the edge of the chair; place your feet on the floor to stand.

2. Use momentum by rocking your body forward three times.

3. Then on the third rock forward, use your leg muscles to push yourself up. You may have your hands on your thighs or next to your thighs to push up to stand as long as your elbows are tucked next to your ribs.

*Cardiac Rehabilitation*
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. This is a group and individual, supervised exercise program to help you recover.

After your open heart surgery you will be referred to cardiac rehabilitation. Cardiac rehabilitation is a supervised exercise and lifestyle program that is designed to help you recover safely and to teach you exercise and nutrition habits that will sustain your health for years to come.

Studies have shown that patients who attend cardiac rehabilitation have a 44% decrease in the risk of dying from any other heart disease complications over the next 10 years compared to those who don’t attend.

There is a 50% decrease in the need for any future hospital stays for a cardiovascular concern in those patients who participate in cardiac rehabilitation compared to those who don’t. Your cardiac rehabilitation team of nurses and therapists will guide you through your recovery by monitoring your heart’s response to increasing activity so that you can resume your normal routines with confidence.

You will receive instruction about exercise that is appropriate for your level of recovery as well your diet, your medications and how to prevent cardiovascular problems in the future.

Your cardiac rehab specialist will communicate regularly with your surgeon and your cardiologist about your progress and any other observations that need more immediate attention.

Our goal is to restore your health after your surgery and maintain your vitality for the rest of your life!

Here are some general guidelines to get you started at home before you begin a cardiac rehab program.
Keep Your Move in the Tube®

These are some examples of how to move safely in the tube and some examples of what should not be done. Pictures with an ‘X’ signify what NOT to do.
walking 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.
• Increase the length of walks and reduce the number of times per day you are walking. Gradually changing to fewer, but longer walks.

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.
• How hard do you feel you are working? When exercising, try to stay between a fairly light level of exertion to somewhat hard. This is a safe level of intensity. It is within the heart-rate training zone. Refer to RPE scale in the Activity Guideline on page G-1.

the perceived exertion scale
below is a good way to monitor your exertion level. When exercising, try to stay between 11 (fairly light) and 13 (somewhat hard). This is a safe level of intensity and it is within the heart-rate training zone.

perceived exertion scale
6 Rest
7 Very, very light
8
9
10 Fairly light
12
13 Somewhat hard
14
15 Hard
16
17 Very hard
18
19
20 Very, very hard
Range of Motion Exercises

How Many and When
• These stretches should be done two to three times each day.
• Do two to three repetitions per session unless otherwise directed below.

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

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

Sitting knee extensions
1. Lift your foot and straighten your knee all the way, hold for 3 seconds then lower your foot.

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

Lying Down or Seated
1. Squeeze your glutes (butt) and hold for 3 seconds.
2. Repeat 10 times.

Lying Down - Quads Sets
1. Push your knee down into the bed, tightening the front of your thigh.
2. Hold for 3 seconds.
3. Repeat 10 times.
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, handheld 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 repetitions 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.

Tips for taking medicines

Set up a routine. For example, take your medicine with the same meal each day or before you go to bed.

Use a pill box or dispenser. Choose one that has the day of the week and morning and evening marked. This device may help you keep your medicines organized and remind you when to take them.

Keep a list of all your medicines and their dosages with you at all times. Show this list to any doctor or dentist who treats you. Also consult with your pharmacist before buying any prescription or over-the-counter medicine.

**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.

**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 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 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.
Polyethylene Glycol (MiraLAX)
This medication is a laxative that increases the amount of water in the intestinal tract to stimulate bowel movements. Some medications and conditions can make constipation more likely. When recovering after a heart attack or surgery straining to have a bowel movement should be avoided. This laxative works with your body’s natural process to provide effective constipation relief.

Measure the powder and dissolve into four to eight ounces of any beverage (hot, cold or room temperature) per instructions on the package.

This medication is intended to prevent constipation and provide gentle relief that hydrates, eases & softens stools without causing harsh side effects. It is both Sugar-Free & Gluten-Free.

Ferrous Sulfate (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, Enalapril, Benazepril and Captopril)
Lisinopril belongs to a group of medications called ACE inhibitors. It is used to lower blood pressure and decrease strain on the heart.

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.
**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).

**Sennakot (sennosides)**
This medication is used to treat occasional constipation. Some medications and conditions can make constipation more likely.
Sennakot is a gentle laxative. It works by stimulating the muscles in your bowel to make you have a bowel movement. It is usually taken in conjunction with Docusate (Colace) and is available over the counter.

**Statins (Cholesterol-Lowering Drugs): Crestor, Atorvastatin (Lipitor), Zocor, 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 “anticoagulant.” 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.
Immediately report any signs or symptoms of bleeding, including blood in stools or sputum.
Avoid 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.

Contact your provider to report serious illness, including diarrhea, infection, fever or continued vomiting so they can advise if you need to adjust your dose or be monitored more closely.

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 \( \frac{1}{2} \)-1 cup per day.

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

Stay alert and safe!
Warfarin keeps your blood from clotting so you need to protect yourself from injury or bruising.

Wear a medical alert bracelet.
The bracelet should say that you are on a blood thinner.