Your Heart is in the Right Place

Open Heart Surgery
Emory Saint Joseph’s Hospital wants to make your recovery from heart surgery as easy as possible. One way we can do this is by providing information. This book has been written for you and your family with the help of doctors, nurses, education specialists, clinical nutritionists and physical therapists. It contains information about the surgery and how to care for yourself at home. Your doctors and health care team will strive to make your stay at Emory Saint Joseph’s Hospital as comfortable as possible.

Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Heart and How it Works</td>
</tr>
<tr>
<td>Your Heart Surgery</td>
</tr>
<tr>
<td>Before Your Surgery</td>
</tr>
<tr>
<td>After Your Surgery</td>
</tr>
<tr>
<td>At Home</td>
</tr>
<tr>
<td>Risk Factors</td>
</tr>
<tr>
<td>Save Your Heart, Eat Smart</td>
</tr>
<tr>
<td>On-Demand Video System</td>
</tr>
<tr>
<td>Map</td>
</tr>
<tr>
<td>Notes</td>
</tr>
</tbody>
</table>
Your Heart and How It Works

Your Heart

The heart is a hollow organ that is about the size of your fist. It is located just behind your breastbone. It is a strong, hardworking muscular pump. The heart pumps blood to your lungs to get oxygen, and then pumps this oxygen-rich blood throughout the body.

Coronary Arteries

The heart itself needs this same good blood flow. A network of heart arteries (coronary arteries) supplies the entire heart with oxygen-rich blood. The coronary arteries start at the base of the aorta. There is a **Right Coronary Artery (RCA)**, and a **Left Main Artery** that branches into the **Left Anterior Descending (LAD)** and **Circumflex (Cx)** arteries.
Coronary Artery Disease

Coronary Artery Disease (CAD) is the build-up of fats, calcium and blood clotting materials on the inner walls of the coronary arteries. This blocks the blood flow to the heart muscle, putting it at risk for injury.

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<table>
<thead>
<tr>
<th>Normal Coronary Artery</th>
<th>Diseased Coronary Artery</th>
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</table>

**Coronary Artery Bypass Surgery**

Coronary Artery Bypass Grafting (CABG) is surgery that re-routes blood flow around a blockage in the coronary arteries. Artery or vein grafts are used to “bypass” the blockage.
The heart is divided into right and left sides. Each side has an upper chamber and a lower chamber. The upper chambers are called atria and the lower chambers are called ventricles.

As blood is pumped from one chamber to another and out to the lungs and body, it passes through valves. The valves are like one-way doors that keep the blood flowing forward. If the valves do not open or close properly, the heart works harder to pump the blood.

Heart Valve Stenosis

This is when the valve becomes “stiff” and does not open widely. The heart has to work harder to push the blood forward.

Heart Valve Regurgitation

This is when the valve does not close tightly. Each time the heart pumps, some of the blood goes backwards and has to be pumped again. This makes the heart an inefficient pump.

Heart Valve Surgery

This repairs or replaces the heart valves that do not open or close properly.

Examples of valves:
- Example of a mechanical valve
- Example of a tissue valve
After Heart Valve Surgery

Subacute Bacterial Endocarditis (SBE) Prevention

After heart valve surgery there is an increased risk of developing bacterial infections of the heart. This is usually caused by bacteria that enter the blood stream during illness, dental work or other procedures performed by doctors and dentists.

It is your responsibility to inform the doctors and dentists if you have had heart valve surgery. To prevent subacute bacterial endocarditis, you will need to take antibiotics prior to most medical procedures and dental work (including routine teeth cleaning).

COUMADIN®

Patients who have a mechanical heart valve must take medication to prevent blood clots from forming around the valve. This medicine, called COUMADIN®, is often referred to as a blood thinner.

Since you will be taking COUMADIN® for the rest of your life, it is recommended that you wear a Medic Alert identification bracelet. Before going home, you will be given additional information regarding COUMADIN®.

Your Aorta

The aorta is the major blood vessel that carries blood out of the heart to the body. It is split up into different sections. These are the: root, ascending, arch, descending or thoracoabdominal areas.

There are two main disease processes that affect the aorta: an aortic aneurysm and aortic dissection. Please the following page for information on these conditions.
**Aortic Dissection**

An aortic dissection is an emergency condition which is due to a tear in the aortic wall, which can cause life-threatening organ damage or bleeding. There is usually a very severe, sharp, stabbing pain either in the front part of the chest, back or abdomen.

**Thoracic Aortic Aneurysm**

A thoracic aortic aneurysm is an overstretched and weakened area in a part of the aorta located in the chest cavity. The weakened area is formed as a bulge in a section of the aorta and often does not have symptoms. Large and rapid growing aortic aneurysms increase in size and may eventually rupture. This can be life-threatening.

Treatment is dependent on your symptoms, size, and growth rate of your thoracic aortic aneurysm.

Controlling lifestyle habits, medical therapy and surgical interventions are measures used for treatment.

### Things that increase your risk of getting an aortic aneurysm or dissection:

- Family history
- Age
- Tobacco use
- High blood pressure
- Plaque buildup in your arteries
- Heart valve problems
- Certain connective tissue disorders
Your Heart Surgery

Types of Surgery

Traditional Open Heart Surgery

The surgeon opens the breastbone (sternum) and works directly on the heart while a heart-lung machine pumps the blood around the body. This way the surgeon can operate on a “resting” heart.

"Off Pump" Open Heart Surgery

This is like the traditional open heart surgery, but the surgeon does not use the heart-lung machine. He/she can operate on a “beating” heart.

Minimally Invasive Heart Surgery

Smaller incisions are made to reach the heart. The surgeon may or may not use the heart-lung machine.

Robotic Heart Surgery

Several very small incisions are made around the chest. Small cameras and robotic arms are inserted into the chest. These arms actually perform the surgery. The surgeon operates the arms remotely using the da Vinci® robot.
Before Your Surgery

What Will Happen

• Lab tests and X-rays are done.

• A member of the anesthesia team will go over your health history and answer any questions you may have. Be sure to write your questions in the back of this book.

• An identification bracelet will be placed on your wrist. **DO NOT REMOVE.** You may shower or bathe with this on.

• You will sign your consent for surgery.

• You will be shown a video and given information on what to expect throughout your stay at the hospital.

• You should **STOP** all tobacco use as soon as you find out you need surgery. This helps prevent respiratory problems after surgery.

• You’ll be given an **INCENTIVE SPIROMETER.** Practice this to prevent pneumonia after surgery. **BRING THE SPIROMETER TO THE HOSPITAL ON THE DAY OF SURGERY.**

The Night Before Surgery

• You will be given surgical soap to bathe with the night before surgery. Please follow the instructions carefully.

• You will be instructed to **NOT EAT OR DRINK ANYTHING AFTER MIDNIGHT** the night before surgery. You may take certain medicines with sips of water as determined by your doctor.

• Again, **DO NOT SMOKE.**
Checklist Before Coming to the Hospital

- This book.
- Your driver’s license and insurance cards.
- Money for parking.
- If you have a Living Will or a Medical Durable Power of Attorney, please bring a copy of it with you. This may be the time to discuss this if you do not have one.

Do not eat.

- Brush your teeth for 2 minutes before leaving home. Rinse without swallowing.
- The Incentive Spirometer.
- Complete surgical soap wash.
- Copy of Advance Directives for Health Care or Living Will.
- ID Bracelet.
- No valuables.
- CPAP machine, if you have one.
- DO NOT SMOKE.

Incentive Spirometer

- Sit with your back supported and hold the incentive spirometer.
- Take a deep breath in and then blow out all the way through your mouth with pursed lips.
- Put the mouthpiece in your mouth. Seal your lips tightly around it.
- Breathe in slowly through your mouth as deep as possible. The blue piston will rise toward the top of the column.
- Keep the blue coach indicator on the right side between the arrows.
- Open your mouth and exhale, letting the blue piston fall to the bottom of the column.
- Rest for a few seconds and repeat steps above at least 10 times every hour while you are awake. If you feel dizzy, slow your breathing down.
- Move the tab on the side of the spirometer to show the highest number you reached.
- After each set of 10 deep breaths, practice coughing to be sure your lungs are clear.
- If you have an incision, place a pillow against that area to ease discomfort while coughing.
- Practice this 4-6 times each day before your surgery.
The Day of Surgery

• Brush your teeth for 2 minutes. Rinse but do not swallow.

• Do not eat or drink.

• You will be taken to the surgical holding area and prepared for surgery. Hair will be removed from surgical areas and antiseptic soap scrub will be used.

• Your family will keep any personal belongings you have brought with you (glasses, dentures, hearing aid, CPAP machines, etc.).

• After seeing you off to surgery, your family will be directed to the surgical waiting room on the second floor. Wait time may be from 4 to 6 hours.

• After surgery, your family will meet with your surgeon and a CVICU (CardioVascular Intensive Care Unit) nurse.

• Your family will have the opportunity to visit for the first time while you are still sleeping after surgery.

A Few Things to Remember:

• Your family members will be asked to wash their hands upon arrival to the CVICU.

• You will still be asleep from the anesthesia. It is normal to appear pale, swollen and be cool to the touch when your family first sees you.

• IV pumps and medical equipment are used to treat and monitor your progress. Often these devices beep and make noise. The sights and sounds of the CVICU can be overwhelming. The CVICU nurses are there to answer your family’s questions and to give support.
After Your Surgery

Your Stay in the CVICU

As you wake up you may not realize your surgery is complete. Your nurse will be asking you questions and telling you your surgery is over. You will hear many strange sounds. Stay calm. These things are normal in the CVICU.

- You will wake up with a breathing tube in your mouth. This will be connected to a ventilator. There are chest and bladder tubes, pacing wires and several IV lines. These will be removed as soon as possible. Remain calm! Your nurse and respiratory therapist will coach you during this time.

- Once the breathing tube is removed, you will use your incentive spirometer to expand your lungs and help prevent pneumonia.

- You will get out of bed and move to the chair.

- The medication you were given during surgery will make you feel very thirsty. When you are ready, your nurse will give you ice chips in small amounts.

- You will be asked frequently about your discomfort level. Please rate on a scale of 0 to 10, with “0” being no discomfort and “10” being severe discomfort. You will be encouraged to take your pain medication on a regular basis. Please do not wait until the pain becomes very uncomfortable to request pain medication. Less pain improves your movement and healing.

- Most patients transfer the day after surgery to the CV Step-down on the third floor. Your surgeon will determine when you are ready.

Visiting Hours in the CVICU: 6:30 to 7 a.m., 10:30 to 11 a.m., 1:30 to 2 p.m. and 5:30 to 6 p.m., 8:30 to 9 p.m.

Only two visitors are permitted at a time. Visitation by children is discouraged in the CVICU. No flowers or balloons are allowed in the CVICU.
At this point, you are expected to take an active role in your recovery. The nurses, doctors, respiratory and physical therapists, nurse educators and your family are there to help you.

**CV Step-Down Unit**

- Your family may **visit** you anytime and may stay with you overnight.
- Use your **incentive spirometer** at least 10 times every hour you are awake. Try to move the piston up to at least the “1,000” mark.
- Get out of bed for **meals**. Food may have little taste and your appetite may not be normal at this time.
- You will **walk** around the nursing station to improve your lungs and prevent leg clots. The more you move, the stronger you will feel and the quicker you will go home.
- You will be encouraged to take your **pain medicine** as you need it.
- It may be difficult to **sleep** or stay asleep through the night. You may also have vivid dreams. Changing your pain medications or time given may help.
- Your **weight** may increase after surgery due to fluid retention. A “water pill” may be given to help remove this extra fluid.
- **Blood sugar** levels will be monitored. The stress of surgery may raise your blood sugar. High blood sugars are controlled to improve healing. Insulin may be given at this time and possibly continued after discharge.
- Even without activity, **sweating** spells are common.

**Discharge Instructions**

- Watch “First Days of Recovery” and “Getting Ready to Leave the Hospital” videos available in the **On-Demand Video** system. They are program numbers 130 and 135. Dial 10922 on the phone in your room to access this system.
- You and your family will be seen by the Patient Education Nurse before leaving the hospital. You will learn and ask questions about diet, exercise, incision care and your recovery at home. You may also see a dietitian for help on what foods you should eat.
Infection Prevention

Emory Saint Joseph’s Hospital is committed to making your stay as safe as possible. Hospital-acquired infections can be a concern, and we want you to know we are doing our very best to keep you healthy and free from infection. Below is information about hospital acquired infections and what can be done to prevent them.

Types and Symptoms of Hospital Acquired Infections

**Urinary Catheter Infection** – A urinary catheter is a thin tube placed in the bladder to drain urine. Germs can travel along the catheter and cause an infection in your bladder or your kidneys.

- Signs and symptoms of a urinary tract infection may include pain in the lower abdomen, fever or blood in your urine. After the catheter is removed, signs may be increased frequency or burning on urination.

**Central Line Catheter Infection** – A central line catheter is a small tube that is placed in the large vein of the neck, chest, arm or groin. It is used to draw blood or give medications. An infection can occur when bacteria travels down the central line catheter and enter the blood-stream.

- Symptoms of an infection include fever, chills or redness around the catheter site.

**Ventilator Associated Pneumonia** – A ventilator is a machine that gives oxygen and helps you breathe through a tube placed through the mouth, nose or trachea. A lung infection or pneumonia can develop in a person who is on a ventilator.

- Symptoms may be cough, fever, chills or difficulty breathing.

**Surgical Site Infection** – An infection that occurs after surgery in the part of the body where the surgery took place.

- Symptoms of a surgical site infection are fever, redness and pain around the incision, or unusual drainage from the incision.

What We Are Doing To Help Prevent Infections

**Clean our hands!** Good hand washing or use of an alcohol-based hand rub should be done before a procedure, placing or caring for a catheter, or touching the patient.
Prior to surgery, the nurse will:

- Remove hair using electric clippers, and not use a razor.
- Give antibiotics before and after the procedure as ordered.
- Use special soaps to clean the skin.
- Have you brush your teeth for a full 2 minutes prior to going to surgery.

<table>
<thead>
<tr>
<th>Catheter Care</th>
<th>If you have a Urinary Drainage Bag:</th>
<th>With a Ventilator the Nurse Will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The skin is properly cleaned before placing the catheter.</td>
<td>• Keep the bag lower than your waist to prevent urine from back flowing into the bladder. Avoid touching or tugging on the catheter.</td>
<td>• Clean the inside of the mouth every 2 hours.</td>
</tr>
<tr>
<td>• The nurse may wear a mask, cap, sterile gown and gloves for extra protection.</td>
<td></td>
<td>• Keep the head of the bed raised.</td>
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<tr>
<td>• They are checked daily, and removed when no longer needed.</td>
<td></td>
<td>• Check your breathing and remove the ventilator when no longer needed.</td>
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</table>

What You and Your Family Can Do to Help Prevent Infections

- **Clean your hands!** Family and friends should clean their hands with soap and water or an alcohol-based hand rub before and after visiting.
- Do not hesitate to ask your health care provider if they have washed their hands or used an alcohol-based hand rub.
- Always clean hands before and after wound or catheter care.
- Keep hands OFF your incisions and catheters.
- Notify your nurse if you have any symptoms of an infection.
- Tell your nurse if a bandage becomes loose, dirty or wet.
- Take the recommended shower before surgery or coming to the hospital.
- Eat nutritious foods. They help with healing.

If You Go Home with a Catheter or Dressing

- Clean your hands before and after changing the dressing or touching the catheter.
- Your nurse will give you instructions on care of your catheter or dressing.
- Do not smoke or be around second-hand smoke. This increases the risk of infection.
- Contact your doctor if you have a fever or signs of infection.
Recovery After Your Surgery

The day you are transferred out of the CVICU, you will be up in your room. You will be encouraged to eat meals while sitting up in the chair. Please be sure to ask the nurse for assistance if you feel weak.

Walking will be gradually increased. Follow the program described below. Walks should be spaced at intervals throughout the day, and done after rest. The first few times may take some effort. It becomes easier each time you walk.

Walking Progression Guidelines

Day One - Walk 1 lap around the nursing station, 3 or 4 times a day.

Day Two - Walk 2 consecutive laps around the nursing station, 3 or 4 times a day.

Day Three - Walk 3 consecutive laps around the nursing station, 3 or 4 times a day.

<table>
<thead>
<tr>
<th>Week After Surgery</th>
<th>Frequency</th>
<th>Time</th>
<th>Pace</th>
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<tbody>
<tr>
<td>1</td>
<td>2x/day</td>
<td>5-10 min.</td>
<td>Leisurely</td>
</tr>
<tr>
<td>2</td>
<td>2x/day</td>
<td>10 min.</td>
<td>Leisurely</td>
</tr>
<tr>
<td>3</td>
<td>2x/day</td>
<td>15 min.</td>
<td>Leisurely</td>
</tr>
<tr>
<td>4</td>
<td>1x/day</td>
<td>20-25 min.</td>
<td>Leisurely</td>
</tr>
<tr>
<td>5</td>
<td>1x/day</td>
<td>30 min.</td>
<td>Leisurely</td>
</tr>
<tr>
<td>6</td>
<td>1x/day</td>
<td>30-35 min.</td>
<td>Leisurely to Moderate</td>
</tr>
<tr>
<td>7</td>
<td>4-5x/day</td>
<td>40 min.</td>
<td>Moderate</td>
</tr>
<tr>
<td>8</td>
<td>4-5x/day</td>
<td>45 min.</td>
<td>Moderate</td>
</tr>
<tr>
<td>9</td>
<td>4-5x/day</td>
<td>50 min.</td>
<td>Moderate</td>
</tr>
<tr>
<td>10</td>
<td>4-5x/day</td>
<td>55 min.</td>
<td>Moderate to Brisk</td>
</tr>
<tr>
<td>11</td>
<td>4-5x/day</td>
<td>60 min.</td>
<td>Moderate to Brisk</td>
</tr>
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Minimum Goal: 30-45 Minutes on Most Days
1. Walk when rested. Wait at least 30 minutes after a meal.
2. Walk on level ground for the first six weeks, then gradually begin adding small hills.
3. Avoid extremely hot and cold weather.
4. Wear comfortable shoes made for walking.
5. It is normal to feel like you have done some work at the end of the walk. However, if you are extremely tired and do not feel better after a 20 minute rest period, decrease the walking times and discuss how you feel with the doctor.
6. You may want to exercise indoors such as at a mall or health facility.

Continue the walking program unless there is a change in tolerance to the exercise, or you are instructed otherwise by the doctor or exercise specialist. Always listen to your body. If you get very tired, slow down or stop walking for that day.

Report any chest pain, shortness of breath, unusual symptoms or fatigue to your doctor.

NOTES:
General Exercises

After surgery, your chest, shoulders and neck muscles will be stiff and sore. While we do not want you to overdo activity while the chest is healing, we do want you to move and stretch the muscles to overcome stiffness. The following pages show safe stretching exercises to do daily for the next six weeks, or until the stiffness is gone. They should be done slowly and should not wear you out.

Leg Extensions

In sitting position, extend lower leg forward. Return leg to starting position. Repeat with opposite leg.

Starting number: 10
Increase per week: 5
Maximum number: 30

Ankle Circles

If sitting or lying for an extended period of time, rotate each ankle clockwise and counter-clockwise 10 times.

Knee Lifts

In sitting position, lift right knee toward chest. Return knee to starting position with foot resting on floor. Repeat exercise with left knee.

Starting number: 10
Increase per week: 5
Max number: 30
Shoulder Stretch

With feet spread shoulder width, or while sitting in a chair, hold arms at side. Raise arms to shoulder height. Return to starting position and repeat.

Starting number: 10
Increase per week: 5
Maximum number: 30

Arm Lifts

In a standing position with feet spread shoulder width, or while sitting in a chair, extend arms out to front at shoulder level. Bring hands out to sides at shoulder height. Raise arms above head until elbows are close to ears. Return to starting position and repeat.

Starting number: 10
Increase per week: 5
Maximum number: 30

Arm Circles

With arms extended out to sides at shoulder level, make small circles and gradually increase their size. Reverse direction.

Starting number: 10
Increase per week: 5
Maximum number: 30

Raising Bent Arms

In a sitting position, keep back straight. Place hands palms up, loosely closed, on lap. Keeping arms in this bent position, raise arms up and back until upper arms are in line with ears. Return to starting position and repeat.

Starting number: 10
Increase per week: 5
Maximum number: 30
Manage Your Risk Factors

Continue to keep your heart healthy by controlling the risk factors that cause heart disease.

- **Diabetes**: High blood sugar can cause damage to the arteries.

- **High blood pressure**: High blood pressure makes the heart work harder and causes injury to the lining of the arteries.

- **High cholesterol**: Cholesterol is a fat that is found in the blood. High cholesterol levels can increase blockages in the heart arteries.

- **Overweight**: Excess weight makes the heart strain to pump blood through the body.

- **Smoking/Tobacco Use**: Nicotine has serious damaging effects on the arteries throughout the body. For more information on quitting visit www.smokefree.gov, or call Georgia Tobacco Quit Line at 1-877-270-STOP.

- **Stress, Anger, Depression**: These emotions can affect your peace of mind, raise heart rate, blood pressure, and even cholesterol.

- **Lack of Exercise**: Regular exercise strengthens the heart and greatly reduces the risk of heart disease.

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**Resources for additional information***

- www.americanheart.org - search topics such as exercise, emotions, cholesterol, etc.
- www.diabetes.org - for diabetes-related topics
- www.nhlbi.nih.gov - search any of these risk factors and DASH diet
- www.eatright.org
- www.nutrition.gov

*This page contains links to other websites with information about cardiovascular diseases. We hope you find these sites helpful, but please remember, we do not control or endorse the information presented on these Websites, nor do these sites endorse the information contained here.*
Cardiac Rehabilitation and Education

One of the best things you can do for yourself is to attend a cardiac rehabilitation program. This program will guide your activity and help you change your lifestyle habits. Most important, your heart and blood pressure will be monitored during exercise. Talk to your doctor about how to begin a cardiac rehabilitation program.

Cardiac rehabilitation at Emory Saint Joseph’s Hospital is a comprehensive, outpatient program designed to help patients with heart disease or known cardiac risk factors live full, productive lives. Individualized exercise plans are provided after an evaluation of each patient’s health status, fitness level and personal goals. Patients are supervised by the medical director, nurses and exercise specialists. A case manager follows each patient’s progress through the program. Education components are provided to assist each individual with necessary behavior modifications for reducing risk factors for heart disease. We invite you to attend our cardiac rehab program located on the Emory Saint Joseph’s Hospital campus. Call 678-843-7633 for more information.

Risk Factor Education Class

A free class offering an overview of heart disease, weight management, smoking cessation, hypertension, cholesterol, stress management and exercise. Classes are offered monthly. Call 678-843-7633 to reserve a seat.

Emory Women’s Heart Center

Emory Women’s Heart Center is a unique program dedicated to screening, preventing and treating heart disease in women. To schedule an appointment, please call 404-778-7777.

Womenheart of Atlanta

Womenheart is a monthly support network for women living with heart disease. It meets monthly at Emory Saint Joseph’s Hospital Cardiac Rehab Center. For information, call 678-843-7633.

Pulmonary Rehabilitation

The purpose of Emory Saint Joseph’s Hospital Pulmonary Rehab is to help people with pulmonary disease lead a full and satisfying life. For more information, call 404-778-4991.

Center for Diabetes Care

Certified diabetes educators will give you the tools and knowledge to create a diabetes plan to fit your lifestyle. We offer individual and group classes. For more information, call 678-843-5100.
At Home

General Incision Care After Surgery

- Check your incisions every day for **signs of infection** such as unusual redness, swelling, pain or cloudy drainage.
- Provide good **hand washing** and a clean environment. Avoid yard work or swimming in a lake or pool.
- After 24 hours, you may remove any **dressings** that are still on. However, **steri-strips** are to stay in place until they fall off.
- Take your **temperature** daily. The best time is late afternoon. If your temperature goes over 101 degrees, go to the Emergency Room. For low-grade fever you may take Tylenol®.
- You may **shower**. Avoid tub baths, hot tubs and pools. Wash your incisions with a clean, separate wash cloth. Use a mild soap and warm water and pat dry. Gently pat dry with a clean towel each time.
- Do not apply any **lotions** or ointments or powders. Let all scabs heal naturally.
- Your incisions may appear uneven, or have a lump at the top. This will improve over time.
- Your incisions may be tender, bruised, scabbed, numb and may itch. **Do not scratch.** Keep your hands off!
- If the mammary artery in your chest was used for a bypass, you may notice **chest numbness/heaviness** on the left side. This will go away in a few months.
- Keep pets away from incisions to prevent infections.

Care of Your Leg Incision

- Care for your **leg incision** as described in general incision care.
- **Avoid crossing your legs** or sitting in one position or standing for long periods of time.
- Check the legs for swelling. **Elevate** your legs when sitting to help decrease swelling.
- If you were given **white elastic stockings**, wear them for 2 weeks at home. Remove them at night. Hand wash with a mild soap. Put them back on after your morning shower.
Recovery From Surgery - Traditional Heart Surgery and Thoracic Aortic Aneurysm Repair

Everyone recovers from heart surgery at a different rate. You will feel better each week. Full recovery may take 1-2 months. Before leaving the hospital, you will either be scheduled for a follow-up visit with your heart surgeon or be asked to contact your surgeon’s office to schedule your follow-up visit. You will also be instructed when to make an appointment with your cardiologist. Always bring a list of your medications to every office visit.

Activity and Exercise after Traditional Surgery

- It takes 8-12 weeks for your breastbone to completely heal. Strong wire sutures support the bone during healing.

- Do not push, pull or lift anything over **10 pounds** until seen by your surgeon on a follow-up appointment. Avoid carrying children, groceries, suitcases or moving furniture.

- **Avoid “twisting”** actions. Keep upper body motions even. It is not recommended that you sleep completely on your side. You may use a small back support such as a pillow.

- **Do not drive**, or ride a motorcycle or outdoor bicycle for at least one month, or until your surgeon says it is OK. Ask at your first post-operative visit. You may go on short trips as a passenger. Be sure to wear your seat belt and stop to stretch your legs every couple hours.

- You may feel discomfort, numbness or tingling in your chest. This should gradually go away.

- You may experience **muscle discomfort** or tightness in your shoulders and upper back. This is normal and will get better over time. Good posture will greatly improve this. You may take prescribed pain medicine or Tylenol® to help relieve the discomfort.

- You may **climb stairs** if you feel steady on your feet. Take your time and go slowly. Stop and rest a few minutes if you get tired.

- **Walk to the kitchen for your meals.** You may help prepare your meals and do the dishes.

- **Return to light housework** such as making your bed or light dusting.
• You may attend social activities, church, meet friends or dine out when you feel ready. Plan short outings at first. Avoid close crowds and sick people.

• If you are steady on your feet, and not afraid of falling, you should be comfortable staying home alone for a short period of time.

• Sexual activity may be resumed when you feel comfortable walking up and down 2 flights of stairs at a normal pace without shortness of breath. Usually after 2-4 weeks.

• Your surgeon will tell you when you can return to work.

• After Thoracic Aortic Aneurysm Repair, you may experience a vague discomfort at the incision site, which can be located in the middle over the breastbone or the left lower side of the chest. Eventually this discomfort will go away. It may take several weeks for the discomfort to completely resolve.

NOTES:
Recovery from Surgery - Robotic or Minimally Invasive

Going Home After Robotic Surgery

- You may **shower** and wash your incisions with antibacterial soap. Do not apply any ointments or lotions to the incisions.

- Keep your **incisions clean**. For one month, avoid heavy yard work, public gyms, swimming pools, saunas, lake water, and bath tubs. Wash your hands frequently!

- Your incisions are covered with a shiny “skin glue” called **Dermabond**. Please DO NOT scrub it off when taking a shower. It will slowly wear off in the next couple weeks.

- You may go home with a **black stitch** at your chest tube site. This stitch will be removed at the office visit. Wash the site with anti bacterial soap. If the site is draining, you may apply a band-aid.

- For a couple of weeks, you may have some numbness or strange tingling sensations in the chest. Bruising is also common. You may feel a ridge under the groin incision which will flatten out over time.

- If you were given **white elastic stockings**, wear them for 2 week. Remove them at night. You may wash the socks with mild soap. Put them back on in the morning.

Activity and Exercise after Robotic Surgery

- The first week, do not lift, push, or pull objects over **5-10 pounds**. You may prepare meals, do dishes, light loads of laundry, office work, go up and down stairs, and resume sexual activity when you feel comfortable.

- After a week, you may increase lifting up to **25 pounds**. Gradually resume house work, exercise and sporting activities as you feel comfortable.

- After **one month**, there are no activity restrictions. You may resume all activities and exercise. Often, heart surgery allows you to be a more active person!

- If you did not have an exercise program, begin by **walking 5-10 minutes** twice a day. Increase your walking time 1-3 minutes every day. The goal is to walk **30-45 minutes** several days a week.

- Your doctor will discuss returning to **work and driving** at your first office visit.
Recovery - General Information

- Take your medicines as prescribed. Your nurse will review what medications to take after surgery. These maybe different than what you took before surgery. Always carry a list in your wallet.

- Tylenol® is the only over-the-counter medication advised at this time for pain and slight temperature.

- It is not unusual to have difficulty sleeping at night. You may also experience vivid dreams. Taking Tylenol® or pain medication may help.

- It is not unusual to have sweating spells.

- Avoid constipation. Straining is very stressful on the heart. Start with a healthy fiber-rich diet and use over-the-counter aids, if needed.

- Often, it takes time to get your appetite back. Food may not smell good. Eating properly is important for healing. Try smaller more frequent meals.

- It is best to avoid alcohol, especially when you are recuperating. Later, if you choose to drink, follow the American Heart Association guidelines. It recommends no more than two beers, or 8 ounces of wine, or 2 ounces of hard liquor in a 24-hour period. For women, it is half this amount.

- Use your incentive spirometer 4 to 6 times per day until you see the surgeon for the first follow up visit. Do 10 breaths each time you use the machine. This will help open up the lungs and prevent pneumonia and fever, and make you breathe easier.

- Your weight may be increased after surgery due to fluid retention. It is normal to continue to lose this fluid retention weight up to 1 pound a day. Weigh yourself every morning before eating, after urinating, in the same clothes and on the same scale. However, report to your doctor if you gain 5 pounds in a week.

Be Prepared

- The day your family member goes home is a very busy day. There is a lot to learn, so plan on spending a few hours at the hospital.

- Be prepared! Stock up on groceries, have clean sheets on the bed and get a good night sleep. Remember, you will also need to stop by your pharmacy on the way home to pick up prescriptions.
Recovery - General Information

Fatigue and Emotions

- You will be recovering emotionally as well as physically from heart surgery. It is normal to have days where your spirits are down and you feel depressed. If this lingers more than 4-6 weeks, medical attention may be needed and you should discuss this with your family doctor.


Following **heart valve surgery**, there is an increased risk of developing bacterial infections of the heart, called **Subacute Bacterial Endocarditis (SBE)**. To prevent this, you will need to take antibiotics for procedures like dental work and colonoscopy for the rest of your life. Always tell your dentist and physicians that you have had heart valve surgery so they may prescribe the correct antibiotic.

<table>
<thead>
<tr>
<th>Times to Call Your Surgeon</th>
</tr>
</thead>
<tbody>
<tr>
<td>- A fever of 101 degrees.</td>
</tr>
<tr>
<td>- <strong>Weight gain</strong> of 2-3 pounds over night or 5 pounds in a week.</td>
</tr>
<tr>
<td>- Your <strong>incisions</strong> become red, feel hot, have colored drainage or become more painful. You feel unusual pressure at the incision.</td>
</tr>
<tr>
<td>- Increased <strong>shortness of breath</strong> with activity.</td>
</tr>
<tr>
<td>- Unusual <strong>dizziness</strong> or you feel your heart is racing or beating fast or irregular.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Times to Go to the Emergency Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Fever over <strong>101 degrees</strong>, with shaking chills, vomiting.</td>
</tr>
<tr>
<td>- <strong>Shortness of breath</strong> at rest.</td>
</tr>
<tr>
<td>- <strong>Signs of stroke</strong>: Slurred speech, uneven smile, numbness or weakness on one side of your body.</td>
</tr>
<tr>
<td>- <strong>Chest pain</strong>, or angina pain, call 911.</td>
</tr>
</tbody>
</table>
A risk factor is a trait or habit that makes it more likely to develop a certain illness. For coronary artery disease (atherosclerosis) there are two types of risk factors: uncontrollable and controllable.

### Uncontrollable Risk Factors
- Gender
- Age
- Family History

### Controllable Risk Factors
- Diabetes
- Tobacco Products
- Cholesterol
- Triglycerides
- High Blood Pressure
- Lack of Exercise
- Stress
- Obesity

### Gender
Men are more at risk for heart disease than women, until women experience menopause. Then a woman’s risk gradually increases to that of a man her age.

### Age
Atherosclerosis is part of the aging process. The older you are, the more likely it is you will have heart disease.

### Family History
Heart disease tends to run in families and is passed on from generation to generation.

### Diabetes
*Diabetes is a condition where the body is unable to use sugar and starches that you eat, causing excessive sugar (glucose) levels in the blood.*

**Excessive levels of glucose cause:**
- Red blood cells to stiffen, which may damage the lining of the arteries and speed up the atherosclerotic process.
- An increase in cholesterol and triglyceride levels.
- An increase in blood clot formation.

**To control diabetes:**
- Follow a diabetic diet.
- Follow a regular exercise program.
- Test blood sugar regularly.
- Take medication as prescribed.
- Continue to learn as much as possible about managing diabetes.

### High Blood Pressure
*Blood pressure measures the amount of pressure against the walls of the arteries. It is recorded with two numbers: the top number measures the pressure in the arteries each time your heart beats; the lower number measures the pressure in the arteries between beats, when the heart is resting.*

**High blood pressure:**
- Causes damage to the inner lining of the arteries.
- Speeds up plaque formation.
- Strains the heart.
- Increases the possibility of a stroke.

**Tips to help control blood pressure:**
- Take blood pressure medication as prescribed.
- Control your weight.
- Exercise regularly.
- Follow a low-salt diet.
- Have your blood pressure checked frequently.
**Lack of Exercise**

Aerobic exercise performed regularly can train the heart and lungs to work more efficiently, meaning you will be able to do more work with less strain on the heart. Regular exercise also will help to reduce other risk factors.

Inactivity can:
- Cause the heart to have to work harder when normal daily activities are performed.
- Increase the risk of a heart attack.

Regular exercise will:
- Help lower LDL (“bad” cholesterol) and raise HDL (“good” cholesterol).
- Help weight loss.
- Lower blood pressure.
- Reduce stress.
- Increase the risk of surviving a heart attack with fewer complications.
- Help with tobacco withdrawal.
- Help control diabetes.

**Cholesterol**

Cholesterol is a soft, fatty substance which is made in our liver and circulates through our bloodstream. Cholesterol is also found in animal products such as meat, milk, eggs and cheese.

There are two types of cholesterol: HDL (high-density lipoproteins) and LDL (low-density lipoproteins). HDL is thought to be the “good” cholesterol because it carries cholesterol out of the body. LDL is sometimes called the “bad” cholesterol because it causes cholesterol to be deposited on the artery walls.

High cholesterol levels can affect the heart and blood vessels by building up and blocking the inner lining of the blood vessels.

To control cholesterol:
- Follow a low-fat, low cholesterol diet.
- Maintain an ideal body weight.
- Exercise regularly to raise HDL (“good cholesterol”).
- Take cholesterol lowering medications, if prescribed by a doctor.

**Tobacco Products**

Nicotine is found in cigarettes, cigars, chewing tobacco, pipes, snuff, dip and Nicorette® gum.

Smoking and nicotine cause:
- Decreased amount of oxygen in the blood.
- Narrowed arteries (temporarily), decreasing the blood flow to the heart.
- Damage to the artery walls, allowing cholesterol to deposit and form blockages.
- Increased blood pressure.
- Increased heart rate.
- Possible disturbance in heart rhythm.
- Possible blood clot formation.
- Lowered blood HDL, or “good” cholesterol.

Smoking or using nicotine products is a very serious risk factor. Even if you don’t smoke, studies show that “secondary smoke” can be harmful to health as well.

Tips to help quit smoking:
- Keep a positive attitude.
- Avoid foods and beverages that are known to increase the desire for nicotine.
- Avoid adding new stressors in life during this time.
- Exercise regularly.
- Avoid caffeine and alcohol.
- Enter a community program to help stop smoking.
Overweight

*Being overweight puts an unnecessary strain on the heart, making the heart work harder to pump the blood through the body.*

**Excess weight may:**

- Increase blood triglycerides.
- Increase cholesterol levels.
- Increase blood pressure.
- Increase the risk of diabetes.

**Help control weight:**

- Reduce fat intake.
- Decrease caloric intake.
- Exercise regularly.
- Reduce portion sizes.

**To calculate your ideal body weight, use the following formula:**

Men: Start with 106 pounds for the first five feet in height, and add six pounds for every inch above five feet.

Women: Start with 100 pounds for the first five feet in height, and add five pounds for every inch above five feet. You may add or subtract 10 percent for heavy or light frame.

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Triglycerides

*Triglycerides are another fatty substance in the blood that contribute to atherosclerosis. Triglycerides are produced by three types of food: alcohol, sugars and fats.*

**To control triglycerides:**

- Limit alcohol.
- Limit intake of sweets and sugar.
- Read labels for fat content and avoid foods with more than five grams of fat per serving.

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Stress

*Stress is the way the body reacts physically and emotionally to events. Some degree of stress is normal and even necessary to make life interesting and stimulating. Chronic and unrelieved stress contributes to heart disease.*

**The physical response to stress:**

- Muscle tension.
- Sweaty palms.
- Increased heart rate.
- Increased blood pressure.
- Upset stomach.
- Increased cholesterol level.
- Increased blood sugar.
- Fatigue and sleeplessness.
- Increased blood clot formation.

**Tips to help reduce stress:**

- Exercise. This causes a release of chemicals in the body that act as pain relievers and muscle relaxers.
- Learn to relax. Choose a relaxation technique that fits your lifestyle and practice it regularly.
- Keep a positive attitude.
- Eliminate minor irritations by avoiding conflicts.
- Avoid too many stressful changes at the same time.
A meal plan low in saturated fat and cholesterol is recommended after surgery. Making the change to a healthier eating style doesn’t have to be difficult. Healthy eating means low fat, NOT no fat. You don’t have to give up favorite foods, but vary and serve moderate portions. The following information will help achieve your goals.

<table>
<thead>
<tr>
<th>Saturated Fat</th>
<th>Sodium</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solid at room temperature</strong></td>
<td><strong>A mineral needed by the body for normal functioning</strong></td>
</tr>
<tr>
<td>• Examples include: lard, shortening, butter, palm kernel oil, bacon drippings, whole milk and high fat meat</td>
<td>• Foods high in sodium include most processed foods, including soups, pickles, cured meats, frozen dinners, canned foods and chips</td>
</tr>
<tr>
<td>• Increase total cholesterol by raising harmful LDL</td>
<td>• Limit sodium to 1500 - 2000 mg/day</td>
</tr>
<tr>
<td>• Promotes inflammation in the body</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monosaturated Fat</th>
<th>Triglycerides</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquid at room temperature</strong></td>
<td><strong>A fatty substance in the blood that contributes to heart disease</strong></td>
</tr>
<tr>
<td>• Improve cholesterol by lowering LDL and may increase protective HDL; lowers inflammation</td>
<td>• Come from the diet or are made by the body</td>
</tr>
<tr>
<td>• Olive, canola and peanut oil</td>
<td>• Alcohol, excess sweets or consuming too many calories per day can raise triglyceride levels</td>
</tr>
<tr>
<td>• Peanuts, almonds, hazelnuts, pecans, pistachios; pumpkin and seasame seeds; avocado</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Polyunsaturated Fat</th>
<th>Cholesterol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquid at room temperature</strong></td>
<td><strong>A complex chemical that is found only in foods that come from animals</strong></td>
</tr>
<tr>
<td>• Lowers cholesterol by lowering LDL</td>
<td>• High cholesterol foods include ice cream, butter, 2% and whole milk, beef and egg yolks</td>
</tr>
<tr>
<td>• Sunflower, corn, flaxseed oil; walnuts</td>
<td>• Limit intake to less than 200 mg/day</td>
</tr>
<tr>
<td>• Omega-3 fatty acids are the best of this group</td>
<td></td>
</tr>
<tr>
<td>• Eat fatty fish such as salmon, tuna, halibut and trout twice weekly (total of 6 oz)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Trans Fat</th>
<th>Fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Also known as “partially hydrogenated oil”</td>
<td>20 to 35 grams per day is encouraged to help lower cholesterol, to slow the rise in blood glucose and to keep the bowels moving</td>
</tr>
<tr>
<td>• Increase cholesterol by raising LDL levels an lowering HDL levels.</td>
<td></td>
</tr>
<tr>
<td>• Examples include high fat bakery items, shortening, and stick margarine</td>
<td></td>
</tr>
</tbody>
</table>
# Your Guide for Heart-Healthy Eating

## Food Groups

<table>
<thead>
<tr>
<th>Meat, Poultry, and Seafood</th>
<th>Foods to Choose</th>
<th>Foods to Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving size per day: 5-6 oz</td>
<td>• Chicken or turkey, especially breast meat (without skin)</td>
<td>• “Prime” grade and heavily marbled meats (corned beef, spare ribs)</td>
</tr>
<tr>
<td>Serving size: 3 oz</td>
<td>• Fish (tuna, salmon, etc.) try for 2 servings per week</td>
<td>• Bacon, sausage and ham</td>
</tr>
<tr>
<td>* Limit because of high sodium content</td>
<td>• Shellfish: imitation crabmeat, crab, lobster, shrimp (3 oz serving)</td>
<td>• Frankfurters</td>
</tr>
<tr>
<td></td>
<td>• Lean fresh pork (center, loin cuts), Canadian bacon</td>
<td>• Salt pork</td>
</tr>
<tr>
<td></td>
<td>• Beef (round, sirloin, loin cuts)</td>
<td>• Kosher salted meats</td>
</tr>
<tr>
<td></td>
<td>• Venison and other wild game</td>
<td>• High-fat luncheon meats</td>
</tr>
<tr>
<td></td>
<td>• Reduced fat, lower sodium cold cuts</td>
<td>• Cured meats</td>
</tr>
<tr>
<td></td>
<td>• &gt; 90 percent lean ground meat (beef, turkey, chicken, venison)</td>
<td>• Duck, goose</td>
</tr>
<tr>
<td></td>
<td>• Try to eat chicken, turkey and fish more often</td>
<td>• Organ meats</td>
</tr>
<tr>
<td></td>
<td>• Limit red meat to only 2-3 times per week</td>
<td>• Regular ground meat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Caviar</td>
</tr>
</tbody>
</table>

## Meatless Alternatives

<table>
<thead>
<tr>
<th>1 oz = 1/2 c. cooked dried beans</th>
<th>Dried beans and peas</th>
<th>Egg yolks (limit to one per day, including those in cooking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 egg</td>
<td>Tofu</td>
<td>Refried beans</td>
</tr>
<tr>
<td>1 Tbsp. peanut butter</td>
<td>Natural-style peanut butter</td>
<td></td>
</tr>
<tr>
<td>2 egg whites</td>
<td>Low cholesterol egg substitute</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Egg whites</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-fat soy or bean patties, fat-free refried beans, vegetarian burger</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hummus</td>
<td></td>
</tr>
</tbody>
</table>

## Milk, Yogurt, Cheese

<table>
<thead>
<tr>
<th>Servings per day: 2-4</th>
<th>Skim or 1% milk</th>
<th>Whole or 2% milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving size:</td>
<td>Nonfat dry milk</td>
<td>Buttermilk, chocolate milk or yogurt from 2% or whole milk</td>
</tr>
<tr>
<td>8 oz, or 1 cup yogurt or milk</td>
<td>Evaporated skim milk</td>
<td>Canned whole milk</td>
</tr>
<tr>
<td>1 1/2 oz cheese</td>
<td>Chocolate/ buttermilk from skim or 1% milk</td>
<td>Ice cream, half &amp; half, sour cream, cream cheese</td>
</tr>
<tr>
<td>1/2 cup cottage cheese</td>
<td>Low-fat or fat-free yogurt</td>
<td>Non-dairy cream substitutes containing coconut oil</td>
</tr>
<tr>
<td></td>
<td>Fat-free sour cream and cream cheese</td>
<td>Cheese containing more than 5 grams fat per ounce, including American, Brie, Swiss, Neufchatel, Cheddar and Muenster</td>
</tr>
<tr>
<td></td>
<td>Part-skim mozzarella or ricotta cheese</td>
<td></td>
</tr>
</tbody>
</table>
Your Guide for Heart-Healthy Eating

<table>
<thead>
<tr>
<th>Food Groups</th>
<th>Foods to Choose</th>
<th>Foods to Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fats and Oils</strong></td>
<td>- Use more monounsaturated oils; olive, canola and peanut oil</td>
<td>- Solid fats, shortenings, butter, “stick” margarine</td>
</tr>
<tr>
<td>Servings per day: 3-6</td>
<td>- In limited quantities: polysaturated vegetable oils: safflower, sunflower, soybean, corn</td>
<td>- Meat fat, lard, ham hocks, salt</td>
</tr>
<tr>
<td>Serving size:</td>
<td>- Margarine: soft tub or liquid with acceptable oils or water listed as the first ingredient on the label</td>
<td>- pork fat, bacon drippings, gravies or sauces made from meat drippings or shortening</td>
</tr>
<tr>
<td>1 Tsp. vegetable oil/</td>
<td>(should be trans-fatty acid free)</td>
<td>- Coconut, coconut oil, palm</td>
</tr>
<tr>
<td>margarine</td>
<td>- Stanol or sterol containing margarines (Benecol®)</td>
<td>- or palm kernel oil (often found in non-dairy creamers, whipped toppings, candy and commerical bakery products)</td>
</tr>
<tr>
<td>1 Tbsp. light margarine</td>
<td>- Non-stick sprays</td>
<td></td>
</tr>
<tr>
<td>1 Tbsp. salad dressing</td>
<td>- Imitation butter, “I Can’t Believe It’s Not Butter”® spray</td>
<td></td>
</tr>
<tr>
<td>2 Tbsp. low-fat salad dressing</td>
<td>- Fat-free or reduced calorie salad dressing, oil, or yogurt-based dressing</td>
<td></td>
</tr>
<tr>
<td>1 Tsp. mayonnaise</td>
<td>- Mayonnaise with unsaturated oils or low-fat or fat-free</td>
<td></td>
</tr>
<tr>
<td>1 Tbsp. seeds or nuts</td>
<td>- All seeds and most unsalted nuts, especially walnuts and almonds</td>
<td></td>
</tr>
<tr>
<td>2 Tbsp (1 oz) avocado</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bread, Cereals, Pastas, Soups and Starchy Vegetables</strong></td>
<td>- Breads: whole grain or whole wheat (2 grams of fiber), rye, raisin, plain rolls or buns, English muffins, French bread, pita bread, bagels</td>
<td>- Products made with whole egg, whole milk or any “fats to avoid”</td>
</tr>
<tr>
<td>Servings per day: 6 or more</td>
<td>- Homemade quick breads (muffins, cornbread, waffles and pancakes)</td>
<td>- Cheese breads</td>
</tr>
<tr>
<td>Serving Size:</td>
<td>- Oatmeal, grits and farina, whole grain cereals</td>
<td>- Commercial biscuits, muffins, doughnuts, sweet rolls or croissants</td>
</tr>
<tr>
<td>1 slice bread</td>
<td>- Tortillas (not fried)</td>
<td>- High-fat commercial crackers (especially those made with partially hydrogenated oils)</td>
</tr>
<tr>
<td>1/4 cup nugget cereal</td>
<td>- Low fat crackers and snacks: animal, graham, rye, flat bread, unsalted saltines, oyster or matzo crackers, breadsticks, fig bars, ginger snaps, baked or fat-free potato and tortilla chips, and plain popcorn</td>
<td>- Butter-flavored popcorn</td>
</tr>
<tr>
<td>1/2 cup hot cereal</td>
<td>- Natural fruit/nut snack bars and trail mix</td>
<td>- Fried snack foods, such as regular potato chips</td>
</tr>
<tr>
<td>1 cup flaked cereal</td>
<td>- Rice (brown is preferred) and pasta (especially of the wheat variety)</td>
<td>- Soups made with salt, whole milk, cream, cheese or “fats to avoid”</td>
</tr>
<tr>
<td>1/3 cup rice or pasta</td>
<td>- Starchy vegetables: corn, potatoes, peas, legumes, dried beans, lentils, couscous, and quinoa</td>
<td>- Regular canned soups, dehydrated soup mixes</td>
</tr>
<tr>
<td>1/2 cup starchy vegetable</td>
<td>- Low sodium/low fat soups</td>
<td></td>
</tr>
<tr>
<td>6 small crackers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 cup low-fat, low sodium soup</td>
<td></td>
<td></td>
</tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Fruits and Vegetables</strong></td>
<td>• All fruits&lt;br&gt;• Fruit juices (in limited quantities due to calories)&lt;br&gt;• All fresh, frozen or canned (reduced sodium) vegetables cooked without saturated fats&lt;br&gt;• Unsalted, canned tomato products&lt;br&gt;• Avocado: use sparingly</td>
<td>• Any vegetables cooked with egg, butter, cream, cheese sauces or “fats to avoid”&lt;br&gt;• Sauerkraut&lt;br&gt;• Pickles&lt;br&gt;• Canned tomato products with salt</td>
</tr>
<tr>
<td>Servings per day: 5-9&lt;br&gt;Serving size:&lt;br&gt;1 med. piece of fresh fruit&lt;br&gt;1/2 c, canned/cooked fruit&lt;br&gt;1/2 c, fruit juice&lt;br&gt;1/4 c, dried fruit&lt;br&gt;1 c, berries or 1/2 grapefruit&lt;br&gt;1 c, raw leafy vegetables&lt;br&gt;1/2 c, other vegetables&lt;br&gt;3/4 c, vegetable juice</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Desserts and Other Sweets</strong></td>
<td>• Modified fat or fat-free desserts: pies, cakes, cookies, puddings or low fat desserts, angel food cake&lt;br&gt;• Hard candy, sugar, honey, syrup, jam, marmalade (limited amounts due to calories)&lt;br&gt;• Flavored gelatin, Popsicle, fudgesicle, sherbet, sorbet&lt;br&gt;• Fat-free frozen desserts&lt;br&gt;• Fresh fruit</td>
<td>• High fat desserts made with whole milk, egg yolks, coconut, high fat cheese or “fats to avoid”, which includes most bakery items (cakes, pies, cookies, doughnuts)&lt;br&gt;• Whole milk pudding, ice cream, chocolate candy</td>
</tr>
<tr>
<td>High in calories (eat in moderation only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>• Salt-free or low sodium herbs&lt;br&gt;• Fresh herbs, i.e. garlic, chives, basil, oregano, etc.&lt;br&gt;• Lemon juice, vinegar, vanilla or other extracts&lt;br&gt;• Unsweetened cocoa&lt;br&gt;• Ketchup or mustard in moderation, tabasco sauce, light or low sodium sauces. salt free bouillon&lt;br&gt;• Mrs Dash® onion powder, garlic powder&lt;br&gt;• Tea, coffee (limit caffeinated beverages to two cups per day), decaffeinated sugar-free soft drinks in moderation&lt;br&gt;• Alcohol with your doctor’s permission (men: limit two 4 oz servings of wine, two 12 oz beers, or 3 oz of liquor per day; women: half this amount)</td>
<td>• Salted snack foods: potato chips, popcorn, salted nuts&lt;br&gt;• Relishes&lt;br&gt;• Bouillon cubes&lt;br&gt;• Sea salt, kosher salt, season salt, meat tenderizer, garlic salt, onion salt, celery salt, monosodium glutamate (MSG), lemon pepper, salted cooking wine</td>
</tr>
</tbody>
</table>
Low-Fat Cooking and Menu Planning

Changing to a healthier eating style doesn’t have to be difficult. The following tips show you how eating right can be easy and delicious.

Dining In

1. Use a non-stick pan without oil or use nonstick vegetable spray to brown or sauté foods.
2. Trim all visible fat from meat. Remove skin from poultry before cooking.
3. Baste roasts with fat-free ingredients such as lemon juice, wine or tomato juice.
4. Allow meat to cool after cooking for a stew or soup, so the fat can rise to the top and be removed.
5. Add ice cubes to meat drippings until fat becomes solid for a quick, fat-free gravy. Remove fat before re-heating.
6. Replace cream with evaporated skim milk in sauces and soups.
7. Use cornstarch as a low-fat thickener in sauces and soups.
8. Use a small amount of stock or broth instead of butter or oil to sauté vegetables.
9. Regular canned vegetables may be rinsed and drained under cool running water for a few minutes to lower sodium content.
10. Substitute ground turkey or lean ground beef for casseroles or spaghetti.

Dining Out

1. Contact restaurants in advance and ask if special requests will be honored.
2. Be assertive when ordering meals. Many restaurants prepare food as you request. For example, grilled or broiled meats instead of fried meats.
3. Ask for foods to be prepared without butter or oil. Often, the portion size of meat is too large; limit portion to four to six ounces. Split an entrée with another or take the remainder home.
4. Ask for salad dressing, sour cream and sauces on the side.
5. Try fresh fruit, angel food cake or sherbet if dessert is a “must.”
6. Learn what terms and phrases signify low fat. Examples are steamed, broiled, roasted, poached, dry broiled, garden fresh.
7. Avoid foods that are buttery, buttered, fried, pan-fried, creamed, au gratin, in cheese sauce or escalloped.

To see an Emory Saint Joseph’s Hospital dietitian, please call 404-686-0510 to schedule an appointment.
Reading food labels provides a wealth of information when trying to learn more about the foods you choose. Use labels to determine:

- portion size
- fat content
- saturated fat content
- sodium
- fiber

How much fat?

We recommend 20-30 percent of your total calories come from fat. This equals about 30-50 grams of fat per day. Saturated fat should be less than 7 percent and trans fat less than 1 percent of daily calories.

How much sodium?

We recommend no more than 1500-2000 mg of sodium daily, roughly 500-600 mg per meal. The following are sodium labeling definitions:

- Sodium free: Less than 5 mg of sodium per serving
- Very low sodium: Less than 35 mg per serving
- Low sodium: Less than 140 mg per serving
- Reduced or less sodium: The product has at least 25 percent less sodium than the original product.
- Caution: Many products with less sodium, less salt or light on the label, still may have too much sodium.
- Light: A product has a least 50 percent less sodium or 1/3 fewer calories or 50 percent less fat than the original product.
- No salt added or no salt: No salt has been added in the preparation of the product.

What is a gram of fat?

A measure of the fat content of food. One fat gram equals nine calories. The nutrition label shows how many grams of fat you would consume if 25 percent of your calories come from fat.

Shopping reminder: three grams of fat for every 100 calories fits guidelines for low fat food.

### Sample Menu Plan

#### Breakfast
- 1 cup oatmeal
- 1 slice whole grain toast with 1 tsp. margarine
- 1 cup skim milk
- 1/4 cup walnuts
- 1/4 cup blueberries

#### Lunch
- 3 oz turkey with lettuce and tomato on 2 slices whole grain bread
- Pasta salad:
  - 1 cup spiral pasta
  - 1 cup cooked mixed vegetables
  - 2 Tbsp low fat Italian dressing
- 1 small fresh apple (4 oz)
- Iced tea with lemon

#### Dinner
- 3 oz lean sirloin steak stir-fried with:
  - 2 cups raw mixed vegetables and 2 tsp. oil (canola or olive)
- 2/3 cup brown rice
- 1 cup fruit salad
- 3 gingersnap cookies

#### Snack
- 3 cups air popped popcorn
- 1 low-fat string cheese

### Nutrition Facts

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Cereal with 1/2 cup Skim Milk</th>
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<tbody>
<tr>
<td>Calories</td>
<td>170 / 210</td>
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<tr>
<td>Calories from Fat</td>
<td>10 / 10</td>
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**% Daily Value**

<table>
<thead>
<tr>
<th>Total Fat</th>
<th>1g*</th>
<th>2%</th>
<th>2%</th>
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</thead>
<tbody>
<tr>
<td>Saturated Fat</td>
<td>0g</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Trans Fat</td>
<td>0g</td>
<td></td>
<td></td>
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<tr>
<td>Polyunsaturated Fat</td>
<td>0.5g</td>
<td></td>
<td></td>
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<tr>
<td>Monounsaturated Fat</td>
<td>0g</td>
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</table>

<table>
<thead>
<tr>
<th>Sodium</th>
<th>Cereal / Skim Milk</th>
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<tbody>
<tr>
<td>210mg</td>
<td>9% / 11%</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0mg / 1%</td>
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<tr>
<td>Potassium</td>
<td>190mg / 5% / 11%</td>
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<tr>
<td>Total Carbohydrate</td>
<td>38g / 13% / 15%</td>
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<tr>
<td>Dietary Fiber</td>
<td>5g / 20% / 20%</td>
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<tr>
<td>Soluble Fiber</td>
<td>less than 1g</td>
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<tr>
<td>Insoluble Fiber</td>
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<tr>
<td>Sugars</td>
<td>3g</td>
</tr>
<tr>
<td>Protein</td>
<td>6g</td>
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*Note: The serving size for the nutrition facts is 1/2 cup (48g) and it is based on the assumption that there are 14 servings per container. This serves as a guide to help you understand the nutritional content of the food.
On-Demand Video System

We encourage you to watch these videos. They are available at no charge, 24 hours a day. Please dial 10922 from your bedside telephone and follow the recorded prompts.

<table>
<thead>
<tr>
<th>HEART SURGERY</th>
<th>Kidney/Nephrology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing For Your Surgery</td>
<td>Foley Catheter Homecare</td>
</tr>
<tr>
<td>First Days of Recovery</td>
<td>Diabetes</td>
</tr>
<tr>
<td>Getting Ready To Leave The Hospital</td>
<td>Diabetes and Heart Disease</td>
</tr>
<tr>
<td>Patient Concerns About Anesthesia</td>
<td>Simple Start - Diabetes and Food</td>
</tr>
<tr>
<td></td>
<td>You and Your Feet</td>
</tr>
<tr>
<td>Cardiac Videos</td>
<td>Emotional Aspects</td>
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<tr>
<td>Take a Load Off Your Heart</td>
<td>Living With Diabetes</td>
</tr>
<tr>
<td>Cardiac Rehabilitation</td>
<td>Part 1: Diet and Exercise</td>
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<tr>
<td>Congestive Heart Failure</td>
<td>Part 2: Monitoring, Meds</td>
</tr>
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<td>Heart Failure: Eating to Feel Better</td>
<td>Part 3: Healthy Coping</td>
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<td>Heart Failure: Nutrition and Exercise</td>
<td>Preventing Complications</td>
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<tr>
<td>Exercise: Getting Active, Staying Active</td>
<td>Stroke</td>
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<td>Atrial Fibrillation</td>
<td>Stroke: What Every Person Needs to Know</td>
</tr>
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<td>HEART PROCEDURE VIDEOS</td>
<td>Nutrition</td>
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<td>Cardiac Stents</td>
<td>Diabetes and Nutrition:</td>
</tr>
<tr>
<td>Heart Catheterization/Stent Procedure</td>
<td>Dining Out</td>
</tr>
<tr>
<td>Home Care After Cath/PTCA/Stent</td>
<td>Changing Eating Behavior</td>
</tr>
<tr>
<td>Electrophysiology Study</td>
<td>Shopping/Cooking</td>
</tr>
<tr>
<td>Life with Your Implanted Cardioverter Defibrillator (ICD)</td>
<td>High Cholesterol</td>
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<tr>
<td>Biventricular ICD</td>
<td>Lung Care</td>
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<tr>
<td>Life with a Pacemaker</td>
<td>Smoking: Getting Ready to Quit</td>
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<td>Pleurx Catheter</td>
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<tr>
<td>TAVR</td>
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<tr>
<td></td>
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Emory Saint Joseph’s Hospital

5665 Peachtree Dunwoody Road NE

Atlanta, GA 30342

Phone: 404-778-7200