

Patient Guide

Cardiac, Vascular and Thoracic Surgery



After Your Surgery

 **Morton Plant
Morgan Heart Hospital**
BayCare Health System



This book contains information about cardiac surgical procedures and is designed to help you feel comfortable and able to take an active role in your recovery. We have highlighted some recommendations for pursuing a heart-healthy lifestyle, so that you can reduce the risk of future heart problems. Also included are a few logistical details, including parking, transportation and hotel recommendations.

We recommend you bring this guide with you when you come to the hospital for your heart surgery. We urge you and your family to address any questions about your health or your heart procedure with our doctors, nurses and other professional staff. Our team is eager to address your concerns and help ensure that you have a positive experience at Morgan Heart Hospital.

*This book has been prepared for informational purposes only.
It should not be considered a substitute for medical advice.*

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General Information

Your Morgan Heart Hospital Team

At Morgan Heart Hospital, your cardiologist and your surgeon are supported by a strong and talented team. Select team members will be with you throughout your hospitalization to help you prepare for the procedure and to assist with your recovery.

Physician Assistants and Nurse Practitioners

Physician assistants (PA) and nurse practitioners (NP) play an integral role in caring for cardiothoracic surgery patients. Both physician assistants and nurse practitioners assist in the evaluation and preparation of patients before surgery, caring for patients following surgery, and helping prepare patients for discharge. The PA also has a role in the operating room.

Nurses

Morgan Heart nurses will coordinate your activities while at the hospital and will take charge of your personal care, pain management and discharge planning.

Physical Therapists

Our physical therapists will develop an exercise program specifically designed to meet your medical needs and requirements.

Social Workers

Social workers will help you plan your release from the hospital. They will also communicate with your family and friends. During these discussions, social workers identify the support that your relatives and friends can provide during your recovery period, and educate them (and you!) on the community resources available to help until you regain your complete independence. These professionals will also help you understand your insurance benefits.

Occupational Therapists

Our occupational therapists will help you regain self-care skills and adapt to activities after surgery, so you can be as independent and safe as possible. Our goal is to ensure that you are equipped to successfully continue your recovery upon discharge.

Mended Hearts Support Group

We are very fortunate to have volunteers available to offer help, support and encouragement to our heart surgery patients and their families. Mended Hearts, Inc., is a support group of people who have experienced heart disease and/or open heart surgery. Their insight can be very helpful and reassuring when dealing with your illness.

Mended Hearts can also provide support during your recovery. They can help you:

- Adjust emotionally to your heart disease diagnosis
- Learn how to live a heart-healthy lifestyle
- Stay current on research and treatments for cardiovascular disease

You may contact Mended Hearts directly by calling (888) 432-7899.





On the Big Day

Surgical Time and Admission Information

A Morgan Heart team member will call you between 1pm and 6pm on the day before your surgery to reiterate the information given to you at your preop session, including your time of arrival and where you will check in. If no one has called you by 6pm the evening before your surgery, please contact us at (727) 462-7010.

Parking and Check-In

Please park in the main parking lot and enter through the hospital's main entrance. Doors do not open until 5am. Upon arrival the day of surgery, proceed directly to the Admitting Office. A receptionist will greet you there and take you to the presurgical unit.

Transportation

Van transportation is available from West Pasco and Pinellas counties and for surgical patients who have no other transportation to Morgan Heart Hospital. Certain restrictions apply. If you need help with transportation for the day of your surgery, please call (727) 461-8548 as soon as possible to make arrangements.

Morgan Heart Hospital Tour and Preoperative Tests

Surgical patients may attend a personal education session prior to having surgery. This education session will be arranged at the time of your preoperative testing. Anyone interested in touring the hospital may schedule one at (727) 710-2219.

Accommodations

Please see separate accommodations information in the back of this folder.



Meet Your Heart

The Normal Heart

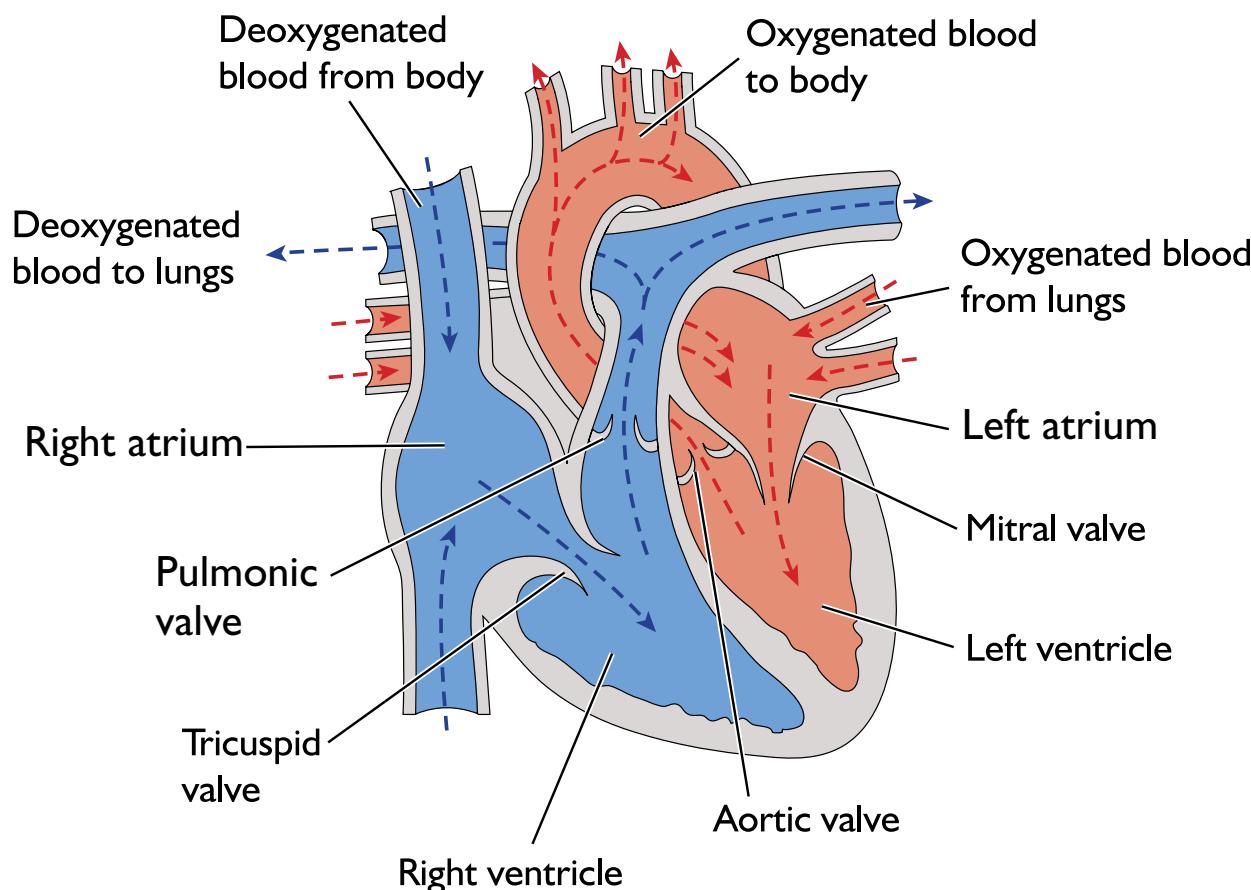
Understanding how the heart works will help you understand how coronary artery disease affects your body. The heart is made up of muscle and is hollow inside. With each heartbeat, blood is pumped to all parts of the body. Blood travels from your heart to your body through blood vessels called arteries. Blood that is being pumped from the heart first goes through the lungs to pick up oxygen needed by the body.

There are four chambers in the heart. The two upper atrium chambers collect blood that is returning to the heart from the body. These upper chambers send blood to the two lower ventricle chambers to be pumped out into the body.

Like the body, the heart itself needs a steady supply of blood and oxygen. The heart's blood supply comes from coronary arteries, blood vessels that lie on the surface of the heart. Coronary arteries branch off the aorta, the large blood vessel that carries blood from the heart to the body. As long as these arteries stay healthy and unclogged, the heart gets the blood and oxygen it needs.

Heart Problems

Arteries are normally elastic. As we age, our arteries harden and lose some of their ability to expand. In addition, fatty deposits known as plaque can build up along artery walls.



This buildup can be caused or worsened by smoking, high blood pressure, a high-fat diet, high blood cholesterol, being overweight, a lack of exercise and other factors, including genetics.

The hardening and narrowing of arteries is called atherosclerosis and can occur anywhere in the body. When it occurs in the coronary arteries, it is called coronary artery disease. Because the coronary arteries are so small, they can become blocked more easily than larger arteries.

During the early stages of coronary artery disease, the body exhibits very few symptoms. However, as the disease progresses, it can cause a short, temporary lack of blood and oxygen in the heart called angina that may include the following symptoms:

- Pressure, tightness or heaviness in the chest, arms, neck or shoulders
- Indigestion or a feeling of fullness
- Shortness of breath
- Burning or aching in the throat, jaw or chest
- Numbness or tingling

Angina can occur when the heart is pumping harder than usual, either during or after physical activity, being outside in cold weather, eating a large meal, or experiencing an exciting or stressful event.

Angina symptoms can last from five to 10 minutes. A heart attack is a more prolonged lack of blood and oxygen to the heart, with symptoms often lasting for 20 minutes or longer, resulting in damage to the heart.

Changes in angina may mean that immediate treatment is needed. Contact your doctor immediately if angina comes on more quickly, lasts longer or occurs more often than usual.

Role of Nitroglycerin

Nitroglycerin is often prescribed for people who have angina because it opens up blood vessels so more blood can get to the heart. It can be taken as a tablet or sprayed under the tongue.

If you have angina, sit or lie down and take one dose and wait five minutes. If your angina is not relieved, take a second dose and wait five minutes. If your angina is still not relieved, take a third dose.

If your angina is not relieved after three tablets or sprays, call 911 immediately to be taken to the nearest emergency room. Do not wait! Quick treatment can reduce damage to your heart and may save your life.

Symptoms of a Heart Attack

A heart attack occurs when a blocked coronary artery has caused damage to a part of the heart. Causes of a heart attack include coronary artery disease, a blood clot or a spasm in the coronary artery (usually due to unknown causes).

Many of the early warning signs of a heart attack are the same as angina, but they last longer and do not go away with doses of nitroglycerin.

Symptoms of a heart attack include:

- Heavy pressure, tightness or burning in the chest, back, arms, neck or shoulders
- Indigestion or a feeling of fullness
- Shortness of breath
- Sweating
- Weakness, dizziness or fainting
- Rapid or irregular heartbeat
- Pale or grey-looking skin
- Vague feeling of uneasiness

If you have any of these symptoms that are not relieved within a few minutes with rest and nitroglycerin (if available), call 911 to be taken to the nearest emergency room immediately. Do not wait! Quick treatment can reduce damage to your heart and may save your life.

Treatments for Heart Disease

Cardiac patients can live longer and more productive lives than ever before, thanks to the specialized care and innovative surgical treatments offered at Morton Plant's Morgan Heart Hospital.

Morgan Heart Hospital combines minimally invasive catheter-based procedures with open-heart surgeries and new surgical procedures including off-pump coronary artery bypass surgery and biventricular pacing, which can reduce symptoms of congestive heart disease or heart failure in some patients.

The result is a comprehensive cardiac care program that can address the individual needs of each of our cardiac patients.

Catheterization Procedures

Cardiac catheterization involves passing a thin, flexible tube (catheter) into the right or left side of the heart, usually from the groin or the arm. Morgan Heart Hospital offers the following catheter-based procedures:

- **Angioplasty:** Also referred to as ballooning, angioplasty is a procedure to open narrowed or blocked blood vessels that supply blood to your legs.

These arteries can become blocked with fatty material that builds up inside them. This is called atherosclerosis. A stent is a small, metal mesh tube that keeps the artery open. Angioplast and stent placement are two ways to open blocked peripheral arteries.

■ **Balloon valvuloplasty:** A balloon at the tip of the catheter is inflated to stretch the valve open and improve valve functionality/blood flow.

■ **Catheter ablation for cardiac arrhythmias:** Cardiac ablation is a procedure that is used to destroy small areas in your heart that may be causing your heart rhythm problems. During the procedure, small wires called electrodes are placed inside your heart to measure your heart's electrical activity. These electrodes may also be used to destroy the bad areas of your heart.

■ **Carotid stenting:** You have an artery on each side of your neck called the carotid artery. This artery brings needed blood to your brain and face.

The blood flow in this artery can become partly or totally blocked by fatty material called plaque. A partial blockage is called carotid artery stenosis (narrowing). A blockage in your carotid artery can reduce the blood supply to your brain. A stroke can occur if your brain does not get enough blood. There are two invasive ways to treat a carotid artery that is narrowed or blocked. One is surgery called endarterectomy. The other is a procedure called carotid angioplasty with stent placement. Carotid angioplasty and stenting (CAS) is done through a much smaller incision, by pushing instruments into your arteries. Your surgeon will make a surgical cut in your groin after using some numbing medicine.

You will also be given medicine to relax you. Your surgeon will insert a catheter (a flexible tube) through the cut into an artery. The doctor will carefully guide the catheter up to your neck to the blockage in your carotid artery. Your surgeon will use live X-ray pictures to see your artery. This kind of X-ray is called fluoroscopy.

Next, your surgeon will pass a guide wire through the catheter to the blockage. Another catheter with a very small balloon on the end will be pushed over the guide wire and into the blockage. Then the balloon will be blown up. The balloon presses against the inside wall of your artery. This opens the artery and restores proper blood flow to your brain. A stent (a wire mesh tube) may also be placed in the blocked area. The stent is inserted at the same time as the balloon catheter. It expands when the balloon is blown up. The stent is left in place to help keep the artery open. The surgeon then removes the balloon.

Surgical Procedures

Surgical procedures are used to bypass one or more blocked arteries, repair or replace damaged heart valves, correct defects in the heart, and maintain and correct irregular heartbeats. For coronary artery bypass and valve procedures, the surgeon opens the chest and divides the breastbone, while in a few other cases the surgical procedure can be performed through incisions. Your surgeon will determine which procedure and method of entry is most appropriate for your condition and overall health. Morgan Heart Hospital's surgical procedures include:

- **Atrial septal defect and patent foramen ovale:** An atrial septal defect (ASD) is a congenital defect in which the wall that separates the two upper heart chambers does not completely close. A catheter is inserted into a vein, guided into the heart and used to place a small patch into the opening.
- **Aortic aneurysm repair (AAA):** Endovascular abdominal aortic aneurysm repair is surgery to fix a widened part (or aneurysm) in your aorta, the large artery that carries blood to your belly, pelvis and legs. Unlike standard surgery, in which a surgical cut is made in the abdomen, endovascular aortic repair is done without any surgical cut.

■ **Arrhythmia surgery (Maze procedure):**

The Maze treatment for atrial fibrillation (AFIB) is an open chest surgical procedure for treating AFIB by altering electrical pathways in the heart and restoring the upper chambers of the heart to a more normal size.

■ **Biventricular pacing (cardiac resynchronization therapy):**

Biventricular pacing is a new procedure that is performed during pacemaker or ICD implant that improves the left ventricle's ability to fully pump blood from the heart.

■ **Cardiac valve repair and replacement:**

A heart valve repair can be performed on a valve that is too narrow to allow sufficient blood flow or on a valve that cannot close tightly enough to prevent backflow of blood. A heart valve replacement is performed when a diseased valve that cannot be repaired is removed and replaced with a substitute mechanical or biological (tissue) valve, such as a stentless valve.

■ **Stentless valves:** These recently developed aortic valves are constructed from animal valves. They do not have the metal and plastic support structure that is present in standard valves. The absence of this support structure allows the insertion of a larger valve that may enable better blood flow and longevity.

■ **Coronary artery bypass (CABG) on-pump:** This surgery is performed with the assistance of a heart-lung machine that allows the heart's beating to be stopped. The surgery involves using a section of vein or artery to bypass a part of the diseased coronary artery. This creates a new route for blood to flow through, so that the heart muscle will get the oxygen-rich blood it needs to work properly.

- **Coronary artery bypass surgery (CABG)—off-pump:** In off-pump bypass surgery (also called Beating Heart Surgery), the heart is not stopped. Instead technological advances and new kinds of operating equipment now allow the surgeon to stabilize portions of the heart during surgery so that the surgeon can bypass the blocked artery. Meanwhile, the rest of the heart keeps pumping and circulating blood to the body.
- **Implantable cardioverter defibrillators (ICDs):** An implantable cardioverter-defibrillator (ICD) is a device that detects any life-threatening, rapid heartbeat. If such a heartbeat, called an arrhythmia, occurs, the ICD quickly sends an electrical shock to the heart to change the rhythm back to normal. This is called defibrillation.
- **Pacemaker implantation and exchange:** A pacemaker is a small, battery-operated device that senses when your heart is beating irregularly or too slowly. It sends a signal to your heart that makes your heart beat at the correct pace.
- **Transmyocardial laser revascularization (TMR):** This procedure can relieve severe angina or chest pain in very ill patients who aren't candidates for bypass surgery or angioplasty. A surgeon makes an incision on the left breast to expose the heart. Then, using a laser, the surgeon drills a series of very small holes from the outside of the heart into the heart's pumping chamber. Bleeding from the laser channels on the outside of the heart stops after a few minutes of pressure. In some patients, TMR is combined with bypass surgery.

Transcatheter Aortic Valve Replacement (TAVR)

Transcatheter aortic valve replacement (TAVR) is an alternative to traditional open-heart surgery for individuals who may otherwise not be candidates for aortic valve replacement. During the procedure, a catheter is advanced to the aortic valve, either through the femoral artery or through a small chest incision and through the left ventricle. Once the catheter is in place, a tissue valve with metal stent scaffolding is positioned and deployed. X-ray guidance provides indirect visualization.

Thoracic Endovascular Aneurysm Repair (TEVAR)

TEVAR is a minimally invasive treatment for patients with abdominal or thoracic aneurysms. Also known as endovascular grafting, TEVAR is performed inside the patient's aorta using catheters and stents under fluoroscopic imaging, avoiding the traditional method of opening a patient's chest to repair the aneurysm. It is imperative that patients with aortic disease seek treatment promptly; as time progresses, aneurysms can enlarge and the risk of rupture increases. In addition to aneurysms, TEVAR can be employed to treat other aortic pathologies, such as dissections and ulcers.

Other Surgical Procedures

In addition to the heart procedures previously described, there are several other procedures that are performed at Morgan Heart Hospital. For further information about these vascular procedures, visit BayCareHeart.org.



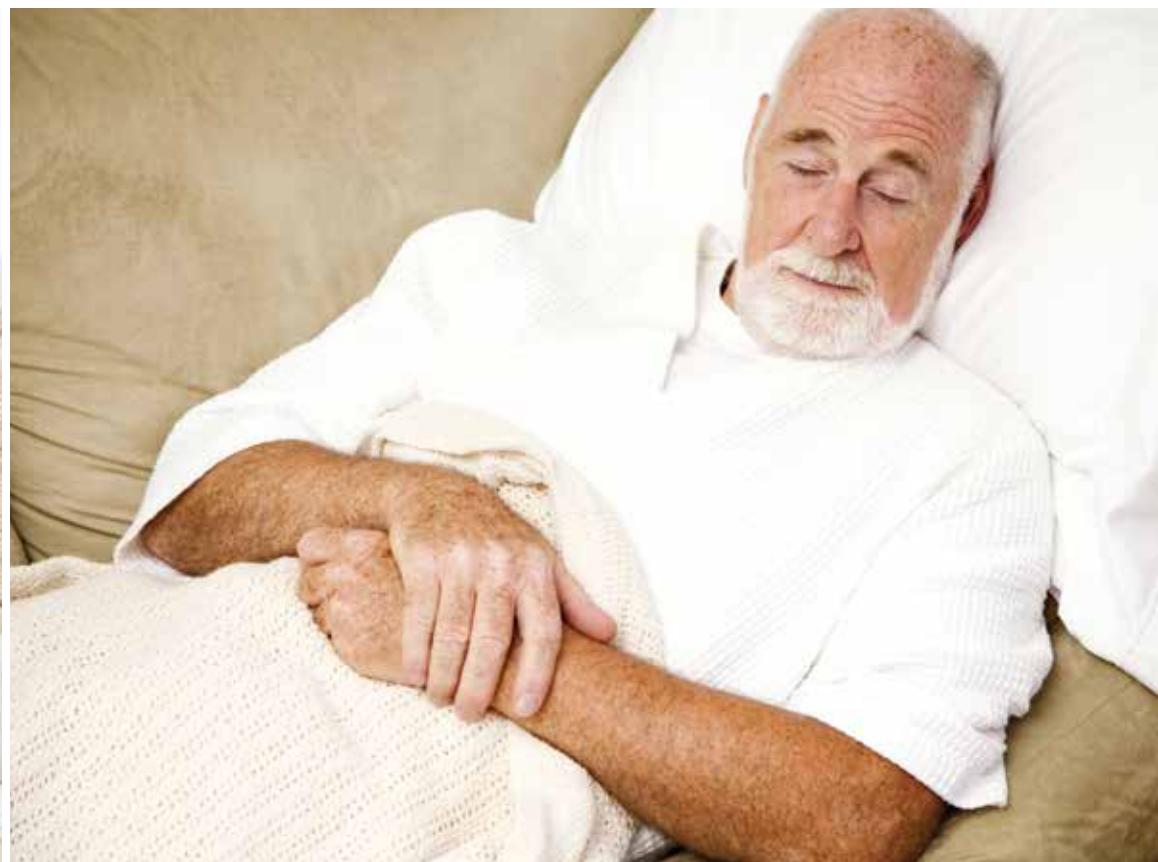
After You Leave the Hospital

Key Points to a Successful Recovery

We want you to have a successful recovery following your surgery.

Here are some key points to follow:

- Clean your incisions every day with antibacterial soap and water. Please use a separate, clean washcloth for each of your incisions. This should ideally be done in the shower.
- Do not put anything else on your incisions unless instructed by your surgeon. This includes Neosporin®, vitamin E ointment, aloe, hydrogen peroxide, betadine and alcohol.
- Check your temperature every day, and record it in your calendar.
- Report signs of infection immediately to your surgeon. Here are a few signs of infection to keep in mind:
 - Temperature greater than 100.5 degrees
 - Increased redness around your incision
 - Increased pain around your incision
 - Increased heat around your incision
 - Suspicious drainage coming from your incision (green, creamy, yellow or foul smelling)
- Weigh yourself every day, and record it on your weight calendar.
- Report signs of fluid retention immediately to your surgeon. Here are a few signs of fluid retention:
 - Weight gain of two or more pounds in a day
 - Weight gain of five pounds in one week
 - Increased swelling in your feet and ankles or bloating in your belly
 - Increased shortness of breath, especially when you are at rest
- Eat a well-balanced diet to encourage strength building and healing. Limit your salt intake to reduce the risk of fluid retention.
- Staying physically active is very important to promote healing and strength building. It is also decreases your risk of complications. Here are a few tips for a safe, active lifestyle during recovery:
 - Use your breathing exerciser at least six times every day.
 - Do your physical exercises three to four times every day. Follow your calendar exercise sheet.
 - Walk three to four times every day. Follow your walking calendar for guidance.
- Follow guidelines for physician restrictions, including:
 - No driving for four to six weeks
 - No lifting more than 10 pounds for six weeks
 - No lifting more than five pounds for four to six weeks
 - No strenuous upper body activity (pushing and pulling) for four to six weeks
- Call and make all your follow-up appointments as soon as possible after you are discharged.
- Call Cardiac Rehab one month following your discharge to enroll in the program: (727) 461-8295.



What to Expect

Many patients will return home after surgery, while others may require additional rehabilitation. We will work with you and your family to develop a discharge plan and help you make discharge arrangements before your procedure so that you know what to expect. Whether you are going directly home or to a rehab center, please read the instructions in this chapter. If you are not returning home immediately after surgery, please see the Discharge Options section on page 17.

Most patients should feel much better in four to six weeks and should be fully recovered in three to six months. Almost everyone feels weak and tired when they first arrive home.

During your recovery, you may experience depression, anxiety and other emotions. Remind yourself that your physical restrictions are temporary. Focus on things that help you stay positive—it will help you recover faster! Also plan to spend time with friends and family but to avoid contact with crowds during flu and cold season.

Patients often have trouble sleeping during the first week at home, but then sleep patterns usually return to normal. Follow a daily routine to help keep you on track. Plan rest periods throughout the day but try not to take naps. Be sure to rest for 30 minutes before exercising or after eating a meal. Try to go to sleep at the same time each evening, and feel free to sleep in a recliner or on the couch if that is more comfortable than a bed. You may sleep on your side as long as you can tolerate it. However, it may be more painful on your side early in your recovery. It would be best to avoid positions that put more strain on the chest and breastbone.

Use common sense, and follow the medical team's instructions. Most patients will have some bad days as they recover, so it's best to monitor improvements and expectations on a weekly basis.

Taking Care of Your Incision

Instructions for care of your incision:

- Wash your incisions daily with an antibacterial soap.
- Do not put anything else on your incisions unless instructed by your surgeon. This includes Neosporin, vitamin E ointment, aloe, hydrogen peroxide, betadine and alcohol.
- Each of your incisions must be cleansed, using a separate and clean washcloth, and dried with a clean towel each day to prevent the spreading of germs. Continue this for two weeks.
- Do not submerge your incisions in a tub, pool or whirlpool for four to six weeks.
- If you have strips of tape over your incisions, do not remove them until your doctor gives you permission.
- Cover your incisions if they will be exposed to the sun during outdoor activities for two months following surgery.
- Women should wear a comfortable bra that will not rub on the incision to prevent strain on the chest incision.

Bathing and Showering

You can shower each day, but do not soak in a bathtub until you have your doctor's permission. Use only warm water. Hot water can make you feel weak or dizzy. Keep a bench or chair in the shower so you can sit down if you need to. During the first week after being released from the hospital, it may be helpful to take a shower when someone is nearby in case you need assistance.

Fluid Retention

Fluid retention is a common side effect of surgery. Watch for these signs:

- Increased body weight. Weigh yourself and write it down every morning before you eat breakfast. A weight gain of two or more pounds in a day or five pounds in a week should be reported to your surgeon.
- Increased swelling of your feet and ankles, or bloating in your belly
- Increased shortness of breath. Some mild shortness of breath is expected, but increased shortness of breath at rest or when lying in bed is not normal.

To prevent fluid retention:

- Take your diuretic (water pill) as prescribed.
- Keep legs elevated when sitting.
- Avoid a salty diet.

Foods and Fluids

Although it's normal to have a decrease in appetite after surgery, it's important to eat a well-balanced diet. In addition to the general recommendations below, we have registered dietitians that are available to develop an eating plan that meets your specific preference and medical needs. Please call our dietitians at (727) 462-7459.

- You may find it helpful to eat five to six small meals a day instead of three large meals.
- Include fruits and vegetables, which are good sources of vitamins and minerals, in your diet.
- Most patients should drink six to eight glasses (8 oz.) of fluid a day. Your doctor will let you know how much fluid is right for you.
- Fluids are very important to prevent dehydration, low blood pressure and constipation.
- Added salt can cause fluid retention, so you should not add salt to your food at the table. You can use a small amount of salt when cooking.
- If you have a chronic problem with fluid retention, you may have to restrict fluids and avoid salt altogether.
- Caffeine can make your heart race and should be avoided during recovery.

Exercise

When you get home, exercise three to five times a day with the exercises that have been recommended. Go at a comfortable pace. Usually you will start out exercising for five minutes at a time and slowly increase the amount of time you exercise by one minute every couple of days.

When you reach 10 minutes, you can decrease the number of times you exercise to three to four times a day. Your care team usually recommends walking, which is an excellent way to improve blood flow throughout the body.

As you recover, you should be able to achieve a goal of exercising for 30 minutes once a day. This is a goal that you will work up to slowly.

Caution: Patients should not use exercise equipment such as a treadmill or stationary bike for four to six weeks. During this time, patients should concentrate on walking, along with warm-up and cool-down exercises.

You should also continue to do your breathing exercises at least five to six times a day at home.

Our cardiac care team recommends that all surgical patients get involved in our Cardiac Rehabilitation Program, which is a clinically monitored and personalized exercise program, four to six weeks after surgery. For your safety, our rehabilitation center is staffed by registered nurses and exercise physiologists. This program is covered by most insurance companies for patients who have had heart surgery, a heart attack or angina.

For more information on Morgan Heart Hospital's Cardiac Rehabilitation Program, please see page 21.

Diabetic Instructions

It is not uncommon to see a rise in your blood sugar after surgery. Some patients who are not diabetic can also develop high blood sugars as a result of their surgery. If you have diabetes or have developed elevated blood sugars, please follow these instructions:

- Continue to follow your diabetic diet.
- If possible, check your blood sugar twice a day before breakfast and dinner. However, it may be necessary to check your blood sugar reading more often to keep it under control.
- If your blood sugar reading is staying higher than 150, you should call your doctor to get it under better control.
- Diabetics have a greater risk of infection, so it's especially important to read and follow the instructions about incision care and the warning signs of infection. Also, take your temperature every morning before eating or drinking. If it is above 100.5 degrees, contact your doctor immediately.
- A dietitian is available to assist with questions at (727) 462-7459.

For more information about diabetes and controlling your blood sugar, please call the **Morton Plant Mease Diabetes Center at (727) 461-8300.**

Resuming Normal Activities

Even simple tasks can be tiring the first few days after surgery. If you get tired, slow down and rest. Don't try to do too much, too soon.

In the first weeks you will probably be able to read or watch television, play cards, do crafts, climb stairs (slowly and resting as needed) and do light meal preparation. As you get stronger, you will be able to do laundry, complete light housework and attend social events.

A few cautions:

- Avoid activities that strain your breastbone, such as pushing or pulling, sweeping, shoveling, moving furniture, pushing a lawn mower and opening heavy doors.
- Do not lift anything heavier than 10 pounds for four to six weeks after surgery.
- Do not drive a car or other motor vehicle for three to four weeks after surgery.
- When you are a passenger, use a small pillow under your seat belt to act as a cushion.
- Consult your surgeon before taking a long car trip, even as a passenger. You will need to stop every one to two hours to walk around and increase blood flow to your legs.

Resuming Sexual Activities

The amount of stress on the heart during sex is about the same as climbing two flights of stairs. If you can climb stairs, you should be able to enjoy sex with your usual partner. However, sex with a new partner can put more strain on your heart. You should also avoid sexual positions that put extra strain on your breastbone. Talk to your doctor before taking any drug for erectile dysfunction. Adverse drug reactions are possible.

Returning to Work

Many people return to work four to six weeks after surgery. How soon you are able to return to work depends upon your recovery and the type of job you have. A person with a desk job may be able to resume work before someone who has a more physical job.

Please do not return to work until your doctor has given permission.

Follow-Up Doctor Visits

Follow-up visits with your surgeon, cardiologist and primary care doctor are needed. Please call and make follow-up appointments as soon as possible after your discharge.

You will receive a follow-up call to check on your condition.

Most patients will qualify for home health care visits in their home. The hospital will help arrange for this service by working with an agency chosen by the patient.

Urgent Items to Report to Your Doctor

Please contact your surgeon at (727) 446-2273 if you have any major concerns about your recovery, including the following:

- Signs of infection
- Signs of fluid retention. A weight gain of three or more pounds over two days or five pounds in a week should be reported to your surgeon.
- Severe weakness and fatigue that does not improve within two to three days
- Persistent nausea, vomiting or diarrhea
- Fainting or near-fainting episodes
- Dizziness that comes on suddenly
- Chest pain like the pain you had before surgery, or discomfort in the chest, neck or shoulders that gets worse with deep breathing
- Persistent shortness of breath that continues even when you are resting
- Persistent irregular or rapid heart beats.

Discharge Options

Our goal at Morgan Heart Hospital is to enable you to return home as soon as possible after your procedure. However, some patients may require additional rehabilitation before or after returning home. We will work with you and your family to make discharge arrangements before your procedure and develop a plan so that you know what to expect.

Home Health Care

If your medical needs cannot be met by family and friends, home health workers are available to help get you back on your feet. These workers include physical and occupational therapists, home health aides and nurses. Home health workers help you walk, regain strength and complete daily living tasks. They also monitor your condition and safety.

You are a candidate for returning home (with the help of home health) if you can:

- Get in and out of bed or a chair with minimal help
- Walk with a walker, crutches or cane
- Walk from your bedroom to your bathroom and from your bedroom to your kitchen
- Safely navigate any stairs in your home





Skilled Nursing Facility or Rehabilitation Center

Some patients need more help than home health care can provide, such as skilled nursing care and/or rehabilitation. In a skilled nursing or rehabilitation center, you can continue your rehabilitation before returning home. Therapy helps you build strength and endurance, with a goal of returning home as soon as possible.

There are a number of places to choose from for skilled nursing or rehabilitation care, if needed. This includes Morton Plant Rehabilitation Center, conveniently located on the Morton Plant Hospital campus, and Mitchell Rehabilitation Hospital at Morton Plant North Bay for those who live in Pasco County. Our social worker will discuss your options with you as we make plans for your discharge.

In order to ensure a smooth transition from Morgan Heart Hospital to your nursing facility or rehabilitation center, you should complete the following tasks before you check in for surgery.

- Identify three skilled nursing facilities with which you feel comfortable and which can provide the services needed by heart patients.
- Call your insurance company to ensure it will cover your stay at these facilities.
- If possible, visit each of these facilities before your surgery. If a personal visit is not possible, call to place yourself on their admissions lists. The staff of these facilities will need your name, date of surgery and possible date of discharge from Morgan Heart Hospital.

When you arrive at Morgan Heart Hospital, give your nurse or social worker a list of the facilities you have contacted.

Preparing Your Home for Your Return

You may want to rearrange some of the items in your house to make it easier and safer for you to recover at home.

- Move frequently used items in the kitchen, bathroom and bedroom to tabletops or to surfaces that are at waist level. This includes shoes, food, medications, toiletries and toilet paper.
- Make sure there are clear pathways leading from your bedroom to your kitchen and from your bedroom to your bathroom. Eliminate clutter around the house.
- Remove all throw rugs from your floors.
- Are your stair railings secure? If not, fix them. If you're constructing a new railing on your stairs, make sure it extends a few inches past the end of the staircase.
- Apply adhesive slip strips to your tub or shower.
- Consider using liquid soap (stored in a dispenser) rather than a bar of soap.
- Place a phone in your primary sitting area and near your bed. Cordless phones are often most convenient. If you are home alone, you should carry a cordless phone in your walker bag or fanny pack. (This increases ease of access in case an emergency arises.)
- Select a chair that you will use when you come home. The best chair will be firm, have arms and provide a way to elevate.
- Install nightlights in each room. Try to buy the type with sensors that automatically turn the lights on at sundown.

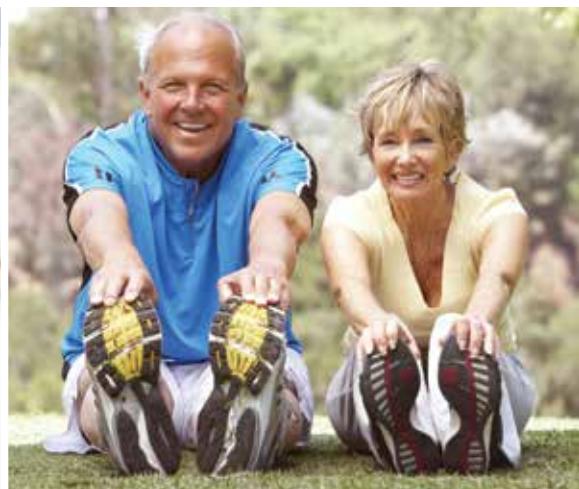


If You Live Alone

Ideally, patients should never return home and be alone for more than a few hours in a day; this is for safety reasons. It is best to arrange for someone to stay with you or for you to stay with someone else so that you have assistance. If you live alone, you may want to complete the following additional tasks before checking into the hospital:

- Find someone to do your yard work and heavy chores while you are in the hospital and for four to six weeks after surgery.
- Find someone to care for your pet while you are in the hospital.
- Arrange for transportation to the grocery store, community events, your place of worship, family gatherings and appointments with your physician.
- Fill your freezer with frozen meals that you have made or purchased. When purchasing frozen foods, please select healthier items with less fat, cholesterol and salt.

Adopting a Heart-Healthy Lifestyle



Tips for Avoiding Congestive Heart Failure

Heart failure occurs when the heart's pumping power is weaker than normal. Congestive heart failure occurs when the heart is weakened and there is fluid retention. Heart failure is not a disease, but rather the body's response to conditions that cause the heart muscle to weaken by decreasing its pumping ability or by decreasing its ability to relax. Here are some tips for avoiding congestive heart failure:

Nutrition/Fluid Management

- Consume no more than 2,000mg (2g) of sodium (salt) per day. Approximately 600mg of sodium per meal is suggested for a healthy lifestyle.
- Learn to read labels. The sodium content listed on the food label is per one serving size.
- Avoid convenience foods such as canned soups, canned entrees, canned vegetables, processed pasta and rice mixes, frozen dinners and gravy sauce mixes. Typically, these products are extremely high in sodium.
- Ask your doctor how much fluid you can have each day. Foods considered fluids are coffee, tea, carbonated beverages, Jell-O, soups, ice cream, popsicles, ice cubes and water.

Weight Management

- Weigh yourself first thing every morning before breakfast.
- Record your weight daily.
- Call your doctor if you gain more than two pounds in a day or five pounds in a week.

Staying Active

- Exercise regularly (with your doctor's permission).
- Get plenty of rest.
- Avoid strenuous activities.
- Pace yourself as you gradually increase your daily activities and walking. Rest when you are tired.
- Ask your doctor about returning to work, recreational activities, travel and sexual activities.



Communicating with Your Doctor

Congestive heart failure requires treatment. Maintaining a good relationship with your physician is key to your health. If any of the following symptoms should occur, contact your physician:

- Weight gain of more than two pounds in a day or five pounds in a week
- Swelling in your ankles, feet, legs or abdomen
- Shortness of breath, especially if you wake up short of breath
- A feeling of fullness (bloating) in your stomach with a loss of appetite or nausea
- Extreme fatigue or decreased ability to complete daily activities
- Difficulty breathing during regular activities or at rest
- Changes in sleep patterns, including difficulty sleeping, adding more pillows or sleeping in a chair
- Cough (wet or dry) that doesn't go away
- New, irregular heart beat
- Pulse less than 55 or greater than 120 beats per minute
- Chest pain or discomfort during activity that is relieved with rest
- Restlessness and confusion
- Becoming easily dizzy or lightheaded

Cardiac Rehabilitation Program

Adopting a heart-healthy lifestyle can help you achieve a full recovery and minimize your need for additional surgical procedures. Key elements in this lifestyle are:

- Balanced diet
- Regular exercise
- Regulation of blood pressure and cholesterol
- Smoking cessation
- Stress management
- Weight management

Participating in a cardiac rehabilitation program is recommended by the American Heart Association as the best way to recover from a cardiac event. If you have experienced any of the following conditions, cardiac rehabilitation is designed for you. Medicare or insurance may cover some or all of the costs of a rehabilitation program if you have experienced a recent heart attack or any of the following conditions:

- Heart valve surgery
- Coronary stent/angioplasty
- Coronary bypass heart surgery
- Stable angina
- Other heart problems

If you do not have insurance, we offer affordable self-payment options. Before enrolling in our program, we encourage you to visit a Morton Plant Mease Cardiac Rehabilitation Center. During this visit, a staff member can show you our state-of-the-art facility and assist you with the enrollment.

After completing the program, participants report they feel better than they have in years. Although most patients set modest goals, one patient who graduated from our rehabilitation program ran his first distance race just eight months after quadruple bypass surgery.

How the Program Works

Our Cardiac Rehabilitation Program, available by physician referral, begins with a thorough assessment of each patient's condition. Each patient has an exercise program developed just for them, taking into account any special concerns such as orthopedic, respiratory or diabetic issues. Patients usually attend rehabilitation three times a week, with each session lasting one hour. Insurance often pays for 24 to 36 sessions.

Patients who have never been to a gym can feel comfortable performing exercises at our facility. Our medical staff offers encouragement and tracks each patient's progress. In addition

to being EKG-monitored, all patients are supervised by registered nurses and master's-level exercise physiologists during the exercise routine. This high level of supervision is very reassuring to patients and their families.

More than 90 percent of patients who complete our program improve their fitness level and quality of life, and achieve desired blood pressure and cholesterol levels. Motivated family members can also enjoy improved health if they embrace the lifestyle changes needed for their loved one.

Cardiac rehabilitation is so much more than learning how to exercise safely. Throughout the program, participants are provided information and resources on how to achieve the other elements of a heart-healthy lifestyle, such as a balanced diet, stress management and smoking cessation.



Morton Plant Mease Cardiac Rehabilitation Locations

Countryside Cardiac Rehabilitation

Mease Countryside Hospital
Medical Arts Building
1840 Mease Drive, Suite 105
Safety Harbor, FL 34695
(727) 725-6603

Cheek-Powell Cardiac Rehabilitation

Morton Plant Hospital
Cheek-Powell Heart and Vascular Pavilion
455 Pinellas St.
Clearwater, FL 33756
(727) 461-8295

For more information about our Cardiac Rehabilitation Program, please speak with your physician or call (727) 461-8295.

You Can Make a Difference: Lowering Your Risk Factors



There is no easy, effort-free way to decrease your risk of cardiovascular disease, but your behavior does make a difference. You can have a great impact on your cardiovascular risks by not smoking, lowering your blood pressure, following a heart-healthy diet, maintaining a healthy weight, being physically active, controlling your diabetes and lowering your stress. It is also important to follow your treatment plan based on your doctor's guidance.

Heredity (Family History)

Cardiovascular disease runs in certain families. You may have inherited genes that affect the way your body makes and uses cholesterol. Also, being of a certain race can increase your chances of having heart disease. For example, African Americans, Hispanics, American Indians, native Hawaiians and some Asian Americans have a higher risk of having heart disease.

Usually people with a strong family history of heart disease have one or more other risk factors. Unfortunately, you can't control things such as your race or family history. Therefore, it is even more important to treat and control any other risk factors you do have.

Smoking

All forms of tobacco—cigarettes, cigars, pipe tobacco and smokeless tobacco—are harmful to the heart and blood vessels. Tobacco tightens blood vessels, raises blood pressure and makes the heart work harder. In addition, chemicals in tobacco smoke can damage the lining inside arteries.

The good news is that your body begins to heal quickly even after decades of tobacco use! Ask your doctor about nicotine replacement products and other methods that can help you quit. If you keep using tobacco, your risk of having a heart attack, stroke or other health problems greatly increases.

For help with smoking cessation, please call (727) 462-7740.

High Blood Pressure

Blood pressure is the force of blood pushing against artery walls as your heart beats and relaxes. When blood pressure is too high, it strains on your heart and damages your arteries. High blood pressure increases your risk of stroke, heart attack, kidney failure and heart failure.

You can help control your blood pressure by doing the following:

- Stop smoking
- Lose weight
- Eat less salt
- Exercise regularly
- Reduce stress
- Limit alcohol consumption

In addition to lifestyle changes, medication may be prescribed to help lower your blood pressure.

Diet and Heart Health

Developing a healthy lifestyle, which includes making healthy food choices, can help your heart work better and reduce your risk of heart disease. Medications can be used to help reduce your risk for a heart attack but are not a substitute for healthy eating and routine physical exercise.

At the present time, the role of saturated fat in the development of heart disease remains controversial. The best available science indicates that the fat found in dairy products, eggs and perhaps red meats does not appear to increase risk of cardiovascular disease. Trans fats and other synthetic fats (including partially hydrogenated oils), however, seem to be a contributor for heart disease development. Diets that are high in sugars, sweeteners (including high fructose corn syrup), and processed carbohydrates, seem to worsen the symptoms of metabolic syndrome, which is a major contributor to heart disease.

Achieving and maintaining a healthy lifestyle (diet and physical activity) is a positive step toward reducing your overall risk for heart disease. Before you try a dietary supplement to help reduce your risk for heart disease, try following the guide below to incorporate more whole foods rather than processed foods into your diet. If you have questions about your diet, please ask to see a registered dietitian.

Choose whole foods and foods with the fewest ingredients. Most whole foods contain fiber, which may help decrease your risk of developing heart disease. Limit your intake of processed foods.

The guide below can help to determine what “whole foods” to choose more often than “processed foods.”

	Whole Foods to Choose More Often	Processed Foods to Choose Less Often
Dairy	<ul style="list-style-type: none">■ Milk■ Non-dairy milks (e.g. almond, rice, soy)■ Cheese■ Cottage cheese■ Plain yogurt■ Plain Greek yogurt	<ul style="list-style-type: none">■ Ice cream bars■ Processed cheese, such as Velveeta■ Sweetened yogurt/parfaits■ Powdered or liquid coffee creamers
Fruits and vegetables	<ul style="list-style-type: none">■ Fresh fruits (eat the outer skins when possible)■ Frozen fruits with no added sugars■ Fresh vegetables■ Frozen vegetables	<ul style="list-style-type: none">■ Fruit juices■ Fruits canned in heavy syrup■ Fruit snacks/roll ups■ Frozen fruit with added sugars
Fats and oils	<ul style="list-style-type: none">■ Butter■ All nut oils■ Avocados and avocado oil■ Olive oil (preferably cold pressed/extra virgin)■ Ground flaxseed and flaxseed oil■ Mayonnaise (made with olive oil)■ Natural nut butters■ Raw, unsalted nuts, legumes and seeds	<ul style="list-style-type: none">■ Fried foods■ Honey roasted nuts, legumes and seeds■ Ranch, creamy dressings■ Avoid foods with trans fat and hydrogenated oils in the ingredient list (processed foods, doughnuts, pastries, pie crusts, margarine)

	Whole Foods to Choose More Often	Processed Foods to Choose Less Often
Proteins and Meat	<ul style="list-style-type: none"> ■ Poultry (chicken, turkey) ■ Seafood (fish – fresh or canned; choose wild fish such as salmon, herring, sardines, or tuna for added health benefits) ■ Some minimally processed meats and low-sodium, nitrate/nitrate-free deli meats may be healthier (fresh or uncured; choose grass fed beef for added healthy fats) ■ Soy foods (edamame, tofu) ■ Beans ■ Nut butters 	<ul style="list-style-type: none"> ■ Processed meats and deli meats (smoked and/or cured meats which contain added salt, nitrates and sugar) ■ Fish sticks ■ Fried chicken ■ Spam ■ Processed soy (soy protein powder used in protein bars)
Grains/Carbs	<ul style="list-style-type: none"> ■ Cracked, stone ground or whole wheat flour ■ Whole grain products ■ Brown rice/wild rice ■ Beans, chickpeas, lentils ■ Sweet potatoes ■ White potatoes with skin ■ Oatmeal, oats (steel cut or old fashion) ■ Quinoa ■ Corn ■ Grits 	<ul style="list-style-type: none"> ■ White flour ■ Bagels, cereals, waffles, tortillas, pitas, crackers made with white flour ■ White rice, pasta, bread ■ Biscuits, croissants ■ Doughnuts ■ Fettucine alfredo ■ French fries ■ Hash browns ■ Muffins ■ Pop Tarts ■ Sugary cereals
Beverages	<ul style="list-style-type: none"> ■ Water ■ Milk ■ Tea, coffee (no added sugars) ■ Homemade fruit smoothies and juices ■ Wine in moderation. Women: Up to one drink (5 fluid ounces) a day. Men: Up to two drinks a day. Wine has been associated with reduced risk of heart disease in some research studies involving the Mediterranean diet. 	<ul style="list-style-type: none"> ■ Soda ■ Fruit juices ■ Sports drinks

To help guide your decision making when choosing food options, the following tips may be helpful.

Make Your Plate Colorful	Choose the least processed forms of carbohydrates including whole grains, fruits and vegetables. Choose a variety of colors for the most benefit.
Go Fish	Aim for at least two servings of fish per week, preferably wild fish or fatty fish such as salmon, herring, sardines and tuna.
Eat Healthy Fats	Include healthy fats in your diet. Good options include olive oil, nuts, natural nut butters, avocado and fatty fish.
Daily Dairy	Choose a variety of dairy sources such as milk, non-dairy milks (almond, rice and soy), plain yogurt, Greek yogurt, cheese and cottage cheese.

To help guide your decision making when choosing food options, use the Nutrition Facts Label located on the outside of most food packages.



Start with the serving size.

The Nutrition Facts Label information is based on ONE serving, however many packages contain more. If you eat two servings, make sure you double the calories and all other nutrients.

Avoid trans fat.

According to the law, a food product can contain up to 0.5 grams of trans fat even if it's labeled trans fat-free or 0 grams trans fat. To be sure a product is trans fat-free, check the ingredients list and avoid foods with "partially hydrogenated fats or oils" or "shortening."

Keep an eye on the carbohydrates.

Fiber and sugars are types of carbohydrates.

Fiber: Aim for at least 25-30 grams of fiber daily. A good source of fiber is greater than 10% daily value (DV). Look for high fiber products (greater than or equal to 3 grams per serving).

Sugars: The total sugar content can be naturally occurring (in fruit and milk) or added (such as maltose, sucrose, cane sugar, syrup, high fructose corn syrup). Avoid foods with added sugar as one of the first three ingredients.



Weight Control

Being overweight makes your heart work harder. People who are overweight are also more likely to have high blood pressure, high cholesterol and diabetes, all of which increase your risk of heart disease.

For healthy weight loss, medical experts recommend the following:

- Reducing total calories
- Eating smaller portions
- Eating a balanced diet
- Cutting back on sugar

Exercise

An inactive lifestyle is a major risk factor for heart disease. Regular exercise helps your heart pump better; helps control your weight, blood pressure and blood sugar; helps you handle stress better; and helps you manage your cholesterol level.

The best exercises for your heart, lungs and blood vessels are aerobic exercises. Aerobic exercise for 20–30 minutes nonstop will give you the best results. A reasonable goal for many people is 30 minutes once a day, four to six days a week. Examples of aerobic exercises include walking, jogging, swimming, biking, aerobics class and rowing.

Diabetes

Diabetes seriously increases your risk of developing cardiovascular disease. Diabetes causes the narrowing and hardening of the arteries. By keeping your blood sugar well controlled, you can decrease your risk of heart disease and stroke.

The following will help you control your blood sugar:

- Develop a consistent meal plan with the help of your dietitian and diabetes nurse.
- Check your blood sugar as instructed and report consistently elevated readings.
- Exercise regularly.
- Maintain a healthy weight.
- Take your medication exactly as prescribed.
- Report problems or symptoms to your doctor as soon as possible.
- Stay well informed—take diabetes education classes.

Stress

When you are under stress, your body produces chemicals that cause your heart to beat faster and harder. Too much stress for a long time will raise your blood pressure and increase your risk of a heart attack.

Limiting stressful situations and relaxing your mind and body will reduce your stress level and the negative effects it has on your heart.

Try some of these things to reduce your stress:

- Deep breathing exercises
- Listen to relaxation tapes
- Go for a walk
- Practice positive thinking
- Simplify your life
- Get plenty of sleep
- Find a hobby
- Take time for yourself

Vascular Disease

Vascular disease affects the body's network of blood vessels (arteries and veins) that distribute oxygen and nutrient-rich blood to the body, and bring blood back to the heart and lungs from the rest of the body to re-supply it with oxygen.

Vascular disease can affect the circulation of blood to the heart, brain, legs, arms, torso and neck. Problems associated with vascular disease include heart attack, stroke, aneurysms, carotid artery disease, varicose veins and more.

You may be at risk for vascular disease if you smoke, have a family history of vascular disease, have diabetes, or have high blood pressure or cholesterol. Lifestyle changes such as diet and exercise, as well as medications, may help improve this condition. Other treatment for vascular disease can include special procedures or surgery to improve circulation.



Community Resources

Directory

Here is a list of some community resources you might find useful.

Adult Day Care

BayCare Behavioral Health
(727) 841-4200

Hillsborough Senior Citizens Nutrition and Activity Program
(813) 272-6261

Neighborly Care Network
(727) 573-9444 (Pinellas)

Community Care

Hillsborough County Aging Services
(813) 272-5242

Neighborly Care Network
(727) 573-9444 (Pinellas)

Pasco CARES
(727) 862-9291

Help with Chores

Neighborly Care Network
(727) 573-9444 (Pinellas)

Pasco CARES
(727) 862-9291

Homemaker Services

BayCare HomeCare
(800) 940-5151
(Hillsborough and Pinellas locations)

Gulf Coast Jewish Family and Community Services
(727) 538-7460
(Hillsborough and Pinellas locations)

Pasco CARES
(727) 862-9291

On the Internet

Visit our website at MortonPlant.org for all your health information needs.

Important Phone Numbers

Cardiac Surgeons (727) 446-2273
If you need to report a serious complication, such as fever, increased swelling, shortness of breath or intense pain

Cardiovascular and Thoracic Unit..... (727) 461-8355
To make patient inquiries and speak to a nurse

Patient Care Leader..... (727) 710-2219
Care Leader questions before or after your surgery

Nurse Manager (727) 462-3349
For any issues or concerns regarding your care

Cardiac Rehabilitation..... (727) 461-8295
For questions on how to enroll or schedule a preview visit

Finance (727) 462-7197
To make financial arrangements or ask questions about insurance coverage

Free Van Transportation..... (727) 461-8548
If you need a ride to the hospital

Hospital Information..... (727) 462-7000
For directions or general questions

Main OR Department..... (727) 462-7010
If you haven't heard from admissions by 6pm the day before your surgery

Preoperative Registration..... (727) 462-7060
As needed

Social Services (Case Management) (727) 462-7050
For questions about rehab centers, skilled nursing facilities and community resources

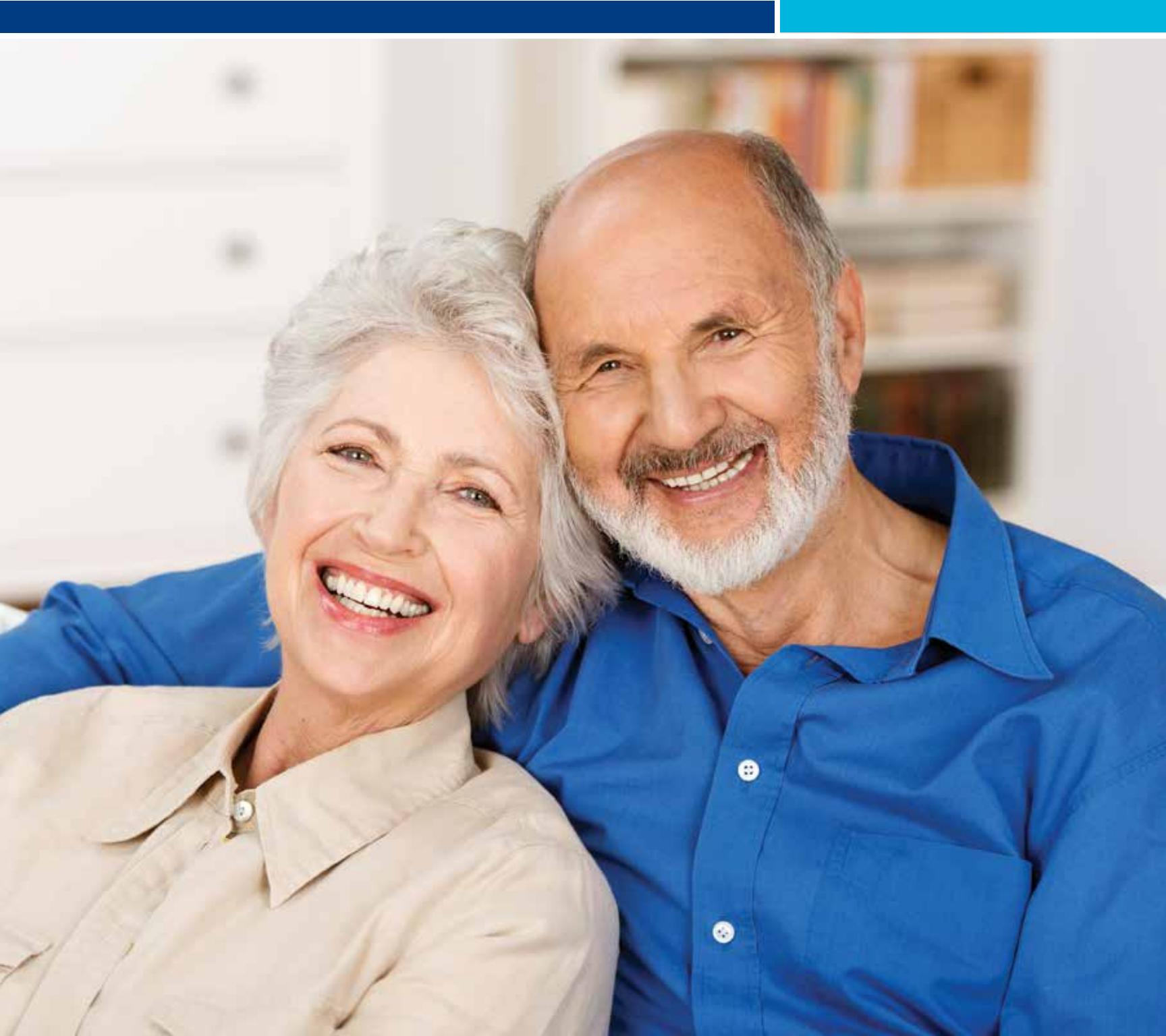
Valve Clinic..... (727) 462-7239
For patients with questions regarding valve disorders or TAVR

A Final Note

The staff at Morgan Heart Hospital is committed to providing each patient with high-quality, compassionate care. If you have any questions about this material, please consult your doctor or nurse.

My Medical Questions

Use this page to write down questions to ask your doctor, nurse, physical therapist or any member of your medical team.



 **Morton Plant
Morgan Heart Hospital**
BayCare Health System

300 Pinellas St.
Clearwater, FL 33756

The success of Morgan Heart Hospital is made possible through the generosity of patients and their families, as well as members of the local community. For more information about Morton Plant Mease Foundation, call (727) 462-7036 or visit MPMFoundation.org.