A Left Ventricular Assist Device (LVAD) is a blood pumping device that can be used in certain patients with advanced stages of heart failure. It is designed to assist the left side of the heart to pump blood throughout the body when it is too weak to work efficiently on its own. A Delray Medical Center advanced heart failure cardiologist and a VAD surgeon will determine if you are a candidate for an LVAD based upon your specific heart disease, the severity of your symptoms and other medical conditions you may have. It is important for all potential VAD patients to understand how the LVAD works, the risks and benefits associated with this therapy and alternative treatment options.

The Heart and Heart Failure

Under normal conditions your heart works efficiently to supply oxygen rich blood to your organs and the rest of your body. The right atrium and right ventricle pump blood to your lungs to pick up the oxygen we breathe. Blood then returns back into to the heart through the left atrium and then to the left ventricle to be ejected out to the body. This oxygenated blood resupplies our organs and tissues and then the blood returns back to the right side of the heart and the cycle continues.

When patients have damaged and enlarged heart tissue from heart disease their own hearts ability to pump oxygen rich blood in sufficient amounts can be severely reduced (see the diagram of the heart on the right above). This lack of oxygen to organs and tissues can result in problems with kidneys and liver function along with many of the troublesome symptoms of heart failure. When the heart cannot pump efficiently, fluid can accumulate in the lungs and tissues causing swelling and shortness of breath. Fatigue, nausea and vomiting are symptoms caused by a lack of oxygen to the brain, muscles and abdominal organs. When oral medications can no longer control your heart failure symptoms it may be time to visit our Center for Advanced Heart Therapies at Delray Medical Center to discuss your options for advanced treatment. While an LVAD is an effective option for some patients with advanced heart failure, it is not always the best option. The Delray Medical Center VAD team will recommend an LVAD if it is the best option for you.
Left Ventricular Assist Device Therapy

LVADs are used to treat LEFT sided heart failure. They are designed to restore blood flow to your body. The pumps work by using a spinning mechanism inside the pump (a rotor) to propel blood forward. People that are candidates for an LVAD need to have a good working right side of their heart. An LVAD alone is not designed to take over the function of both the right and left ventricles of the heart.

An LVAD can vary among types but all pumps have the following parts:

- **Blood pump**
- **Wires that connect to a power source**
- **Power source**
- **Controller**

There are several types of blood pumps and they operate in a similar manner. The wires that are connected to the pump inside of the body will exit the body through a small opening in the abdomen. The exit site on the skin will need to be dressed with a sterile dressing to keep the area clean and dry to avoid infection. The wires or “driveline” will need to be connected to a power source at all times outside the body in order to run the pump. The controller is the “brain” of the system (see the box on the waist in the pictures above). It is programmed by your physicians to run the pump at a specific speed to maintain good blood flow to your body. When a beating heart pumps blood it creates a “pulsatile” flow throughout the body. Unlike a beating heart, the LVAD produces a “continuous” flow of blood through the body. For this reason, most patients with an LVAD will not have a pulse that can be felt through the skin and they will not be able to get a normal blood pressure reading.

The Evaluation Process

The evaluation for LVAD therapy begins with a referral to our program. A VAD Coordinator at Delray Medical Center will walk you through the evaluation process, which can vary in length. Patients will be asked to go through various medical tests and physician specialty appointments to determine the extent of their heart disease and the extent to which other conditions may affect their ability to be approved for an LVAD. Severe diabetes and/or kidney disease are some examples of conditions that we evaluate carefully. There are other requirements beyond the medical evaluation that will be considered before a patient is approved for LVAD therapy. Psychosocial support is essential. Patients will need to have a dedicated caregiver with them 24/7 for the first 6-8 weeks after surgery. Patients will be unable to drive for 6 weeks and will need transportation to and from clinic visits as well as cardiac rehabilitation 3 times per week. The primary caregiver will need to perform a sterile dressing change on the driveline exit site (where the wires exit the abdomen) 3 times a week for the duration of the time the patient has the LVAD. Insurance coverage is necessary to receive an LVAD. Patients must maintain their insurance coverage and notify us of any changes. Finally, patients will be asked to meet with a member of our Palliative Care team. During this meeting patients begin the process of advanced planning for living with a chronic disease and life with LVAD therapy. Once a patient has been approved to receive an LVAD we will request approval to implant the LVAD from your insurance. This may take from several days up to a week. You will be notified by our VAD Coordinator regarding the details of approval and scheduling your surgery.
Introduction to Left Ventricular Assist Devices [LVAD]

The Surgery

LVAD surgery is generally a minimally invasive surgery at Delray Medical Center. During surgery through several small incisions, the surgeon will sew a tube on one end of the pump directly into the left ventricle and the other end of the pump (another tube) to the aorta (see the diagram). Patients will need to be on the heart and lung bypass machine during surgery. If you have a pacemaker/defibrillator device it will be left in place. It will not interfere with the function of your LVAD as it continues to protect you from life threatening abnormal heart rhythms.

Immediately after surgery, LVAD patients go to the ICU to recover for about 2-5 days. They will have a breathing tube in place, IV lines in their neck and arms, arterial lines in their body, chest tubes to help drain excess blood from around their lungs and a catheter in their bladder. LVAD driveline dressing education begins with an LVAD Coordinator and the patient’s primary caregiver. They will meet daily for these dressing and education sessions beginning the first or second day after surgery. During the patient’s ICU stay all of the tubes and lines (except for the driveline) will be removed before the patient moves to our cardiac step down unit. Once the patient is able to breathe on their own and tolerate periods of activity such as sitting up in a chair they will leave the ICU. During the ICU time many physicians, nurses and other healthcare personnel will be caring for the patient. Visiting times should be broken into short visits to let the patient rest and recover.

Once transferred to the cardiac step down unit, the patient will participate in aggressive physical therapy by performing exercises with a physical therapist and walking in the hallway. They will begin caring for themselves again focusing on eating and bathing. The average length of stay on the cardiac step down unit is 10-14 days after the ICU. This is when patients and family members will learn how to manage the LVAD equipment, how to handle emergencies and respond to the warning alarms. Before discharge from the hospital patients will be restarted on their heart failure medications in addition to a blood thinner.

Once the patient is medically ready for discharge and the patient and caregivers have completed all the mandatory LVAD training sessions and written tests, they will be discharged to either local housing or home depending on how far they live from Delray Medical Center. The first 6-8 weeks after the LVAD implant are the most critical weeks and we will monitor you closely for complications. Our program mandates that you remain within 60 miles of our hospital for 6-8 weeks depending on your recovery. We want to be close to you in case you develop complications or problems with your LVAD.
Post-op LVAD Education

The LVAD Coordinators spend on average 20 total hours on education with patients and caregivers during their hospital stay. It is very important that family members be present during these daily sessions to learn the basic required safety information about the LVAD. Dressing change education happens each week on Monday, Wednesday, and Friday in addition to the other daily training sessions. Family members should plan on being present a minimum of 2 hours a day while the patient is in the hospital until the training is completed. The sessions are conducted Monday-Friday during the hours of 8-5 PM. Caregivers that are employed are encouraged to apply for Family Medical Leave Act (FMLA) as early as possible if needed. They will need to be present for the full 20 hours of education.

After Discharge

Patients that have been discharged from the hospital will be asked to begin a 36 session cardiac rehabilitation program 3 times per week in an LVAD trained facility. The VAD Coordinators will work with you to find an LVAD trained facility. After discharge you will have clinic visits weekly for a few weeks. After that time, we will see you every 2 weeks for a month then monthly until 6 months from the date of implant. Visits after the first year are every 3-4 months. During clinic visits you will have blood work with each visit. Some of your visits will include chest x-rays, echocardiograms and other necessary testing. An average LVAD clinic visit will generally take up to 2 hours. Outside of your clinic visits you will need to notify the LVAD Coordinators of any problems that you are having related to the LVAD, heart failure and bleeding. You will also need to be sure to have your blood work done weekly for your warfarin level or INR.

Indications for LVAD Therapy

The following are the general types of patients that are eligible for an LVAD:

- **Bridge to Transplant (BTT)** patients are those that are waiting for a heart transplant but need the LVAD to control their heart failure symptoms while they wait for a donor heart.

- **Bridge to Recovery** patients are those that have heart conditions which may only need a short period of recovery time on the pump.

- **Destination Therapy (DT)** patients are those that are not eligible for transplant or don’t want a heart transplant and choose to live indefinitely with their LVAD.

Alternative Therapies

Standard heart failure medications such as beta blockers and ACE inhibitors can be used to decrease the workload of the heart. Diuretics or fluid pills such as furosemide can be used to help control the excess fluid associated with a weakened heart. Cholesterol and blood pressure management are also important parts in the treatment of heart failure. Dietary and sodium restrictions can help a patient control excess swelling and decreasing body fat, can improve diabetes control. Quitting smoking and/or excessive alcohol use will contribute to overall health and should be part of a heart failure treatment plan. Finally, exercise and weight management plans are essential to help a patient regain strength and return to normal daily activities. Other advanced heart failure treatment options are heart transplant, continuous IV therapy with certain medications and hospice care.
Complications and Risks with LVAD Surgery and Long Term VAD Therapy

The following risks are associated with LVAD implantation:

- **Allergic Reactions**
- **Antibody Production** (may prolong your time to receive a donor heart if bridge to transplant)
- **Anxiety and Depression**
- **Arrhythmias** (abnormal heart rhythms)
- **Bleeding/Hemorrhage** (the risk is higher for LVAD surgery over other heart surgeries)
- **Blood clots in veins and lungs**
- **Blood Clotting Problems and/or damage to red blood cells**
- **Cardiac Arrest**
- **Death**
- **Device Malfunction**
- **Esophageal perforation from transesophageal echocardiography** (done during surgery)
- **Heart Attack**
- **Infection** (driveline infection is a significant risk)
- **Kidney Failure** (due to the complexity of the LVAD operation)
- **Liver Failure** (due to the complexity of the LVAD operation)
- **Lung Problems** (higher risk for those with COPD)
- **Need for re-operation** (most commonly done for bleeding)
- **Neurological Problems**
- **Stroke** (results from the brain being depleted of oxygen)
- **Right Heart Failure which may require a temporary mechanical support device to your right heart** (RVAD; most will be removed after the right side has stabilized)

Your VAD surgeon will explain any increased risks that you may have. It is important to remember your physician will not recommend this operation for you if they do not believe the likely benefit to your health would outweigh these risks.

Potential Benefits

The LVAD can help you return to normal daily activities by restoring blood flow to your body. This increases your cardiac output and gives you more energy, improves heart failure symptoms and prolongs your life. Our program at Delray Medical Center is dedicated to improving the quality of your life. We want our patients to enjoy more years of life with friends and family. We encourage our patients to travel and participate in safe and enjoyable recreational activities. For more information on the benefits of LVAD therapy please contact the Center for Advanced Heart Therapies at Delray Medical Center.

Special Considerations:

**Anticoagulants (Blood Thinners)**

Most all LVAD patients require a blood thinner to protect them from forming clots within the pump. Patients taking warfarin will need their blood checked weekly to make sure they are in a therapeutic range. One of the main risks of taking blood thinners is the risk of serious bleeding. Patients that have had an accident will need to be examined by a doctor to check for signs of internal or external bleeding that could lead to death.
Lifestyle Changes

Having an LVAD requires some modification to a patient’s lifestyle. Getting used to living with a VAD varies among patients. Some patients take longer to adjust to living connected to a constant source of power. While patients are working and enjoying life they must always keep track of the amount of battery power they have left. They must become used to carrying back up equipment with them at all times.

There are two types of activities that are prohibited with the LVAD:

- Participating in activities that could result in submersion into water put you at risk for the pump stopping or electrical problems. This includes going into the water at a beach or swimming pool.
- Contact sports and other activities that put you at risk for injuries may damage the driveline or cause life threatening bleeding.

We ask that patients and family members try to have patience with the recovery and adjustment period. It may take some time to become comfortable with all the aspects of living with an LVAD and every patient is different. Your Center for Advanced Heart Therapies team at Delray Medical Center will help you along the way. Studies show that it can take 3-6 months to feel the full benefit of the LVAD therapy.

Magnetic Resonance Imaging (MRI)

LVAD patients cannot have MRIs. This machine uses large magnets that may cause injury to you and could cause the pump to stop. CT scans are perfectly safe with an LVAD.

Community Education

Most people in the general public do not know much about LVADs. Patients and their caregivers must be experts and understand how to quickly handle emergencies. Our LVAD Coordinators are on call 24/7 in case you have an emergency. We are always just a phone call away. When you return to your hometown we will send educational materials to your local EMS, fire department and closest emergency room. They will be directed to online educational programs for medical professionals and in some cases direct hands on training can be provided.

Finding Additional Education

Patients and families that are interested in learning more detailed information about LVADs can reach out to our LVAD Coordinators through the Center for Advanced Heart Therapies. These specially trained VAD nurses will meet with you during your evaluation process. For those patients that are going through an outpatient evaluation, we offer a VAD Seminar to help potential patients and their families understand the evaluation, surgical and recovery processes and what is required to receive an LVAD. The seminar is open to the public and held monthly here at Delray Medical Center.
Introduction to Left Ventricular Assist Devices [LVAD]

Our Center for Advanced Heart Therapies Team at Delray Medical Center

Brian Bethea, MD

Dr. Bethea is board-certified by the American Board of Surgery and American Board of Thoracic Surgery. He specializes in minimally invasive heart valve replacement and repair, catheter-based heart therapies including transcatheter aortic valve replacement (TAVR) – replacing the aortic valve via a catheter rather than traditional open heart surgery, thoracic endovascular aortic repair (TEVAR), aortic, mitral, and tricuspid surgeries and a minimally invasive approach to left ventricular assist devices (LVAD) for advanced heart failure. His practice will be based in Delray Beach.

From 1995 to 2008, Dr. Bethea completed extensive education and training in cardiothoracic surgery. He graduated medical school from the University of Oklahoma Health Sciences Center and completed residency at The Johns Hopkins Hospital Department of Surgery in Baltimore. Dr. Bethea also completed his residency, fellowship and research fellowship at The Johns Hopkins Hospital.

Phillip Habib, MD

Phillip Habib, MD is an advanced heart failure and transplant cardiologist who came to us from Mayo Clinic in Jacksonville, Florida to start the Advanced Heart Failure and Mechanical Circulatory Support Program at Delray Medical Center. He graduated medical school from Northeast Ohio Medical University and completed Internal Medicine residency at The Ohio State University. He completed general cardiology fellowship at University of Florida in Jacksonville in addition to an advanced echocardiography fellowship at University of Pittsburgh. He is a Diplomat of the American Board of Internal Medicine. Dr. Habib has a number of interests including: cardiac resynchronization therapy, mechanical circulatory support, pulmonary arterial hypertension, valvular heart disease, advanced cardiac imaging, advanced heart failure, and cardiac transplantation.

Meghan Ciganik, BSN, RN, CHFN, Lead VAD Coordinator

Meghan Ciganik has spent the past 4 years at Baylor University Medical Center in Dallas, Texas caring for patients with ventricular assist devices (VADs) and heart transplant recipients. As a VAD Coordinator, Meghan is an integral part of the interdisciplinary team and will be working to start the Center for Advanced Heart Therapies at Delray Medical Center. Her prior cardiovascular nursing experience spans seventeen years at Duke University and the University of Wisconsin Hospital System. Meghan went to nursing school in Green Bay, Wisconsin.

Left Ventricular Assist Device (LVAD) Frequently Asked Questions (FAQs)

What is an LVAD?

A Left Ventricular Assist Device (LVAD) is a surgically implanted battery powered heart pump that assists a failing heart to adequately pump blood throughout the body.

Am I a candidate for an LVAD?

Possible candidates for LVADs are patients that suffer from advanced systolic heart failure, a type of heart failure that results in a dilated or enlarged left ventricle that can no longer efficiently pump blood to the body. Most patients considered for an LVAD are patients that continue to suffer from worsening heart failure with symptoms such as shortness of breath and fatigue despite taking the recommended oral medications to treat their heart failure.

What type of LVAD will I need?

The VAD team physicians at Delray Medical Center will look at your test results and your medical history to determine the type of LVAD for you. There are currently 2 commercial LVAD pumps approved by the FDA. The team will recommend the best pump for you.
**Introduction to Left Ventricular Assist Devices [LVAD]**

**Who will train me and my caregiver?**

During your hospital stay at Delray Medical Center our VAD Coordinators will spend about 20 total hours with you and your family to prepare everyone for a safe return home. Your primary caregiver will be trained to perform sterile dressing changes to your driveline site. You will learn all about your alarms and how to recognize when to get help. Your family must be present for the 20 hours of education while you are in the hospital. We encourage those that are working to request family medical leave (FMLA) paperwork in advance so they are available for the training M-F during the hours of 8-5 pm.

**Why do I have to see a Palliative Care Specialist?**

A Palliative care consult is a mandatory part of the evaluation process for all patients in our LVAD program. Palliative medicine focuses on preventing and relieving suffering related to living with a chronic illness. This team helps patients prepare to live the best quality of life possible while living with an LVAD. The goals of palliative care include symptom management and establishing goals in line with patient values and preferences in addition to end of life planning.

**Once I have an LVAD will I stay on my heart failure medications?**

Most LVAD patients will still need to take the standard heart failure medications like ACE inhibitors, beta-blockers, diuretics (water pills) and aspirin. Medications for other conditions will be resumed such as cholesterol, diabetes and thyroid medications. In addition, patients will be started on an anticoagulant (warfarin) soon after surgery to prevent the pump from developing clots.

**Can I live alone with my LVAD?**

You will need a caregiver for the first 6-8 weeks after your LVAD surgery to remain with you at all times. You can learn to change your own driveline dressing and care for yourself at home. The safest most ideal situation is to live with someone else in case of an emergency but we understand that this is not always an option. You will need a social support system to be successful with your LVAD even if they do not live with you. It is a difficult therapy to endure if you are isolated and alone.

**What if the right side of my heart isn't working well either?**

LVADs are designed to treat only the left side of the heart. Right Ventricular Assist Devices (RVADs) are temporary devices that can be used to help pump blood from the right atrium or ventricle to the lungs. Currently these devices are placed in the operating room during the LVAD implant as temporary devices or used as a bridge to heart transplant for eligible patients.

**Will my pacemaker/defibrillator be removed during the surgery?**

Our surgeons will leave your pacemaker/defibrillator device in place and active. Patients will need to continue to see the same electrophysiology cardiologist that placed the device for regular checkups and maintenance of the battery life. If you wish to see one of the electrophysiology cardiologists here at Delray Medical Center we can help arrange that for you.

**How long will it take after surgery to return to normal activities?**

Every patient is different but studies show the average is 3-6 months. You will be enrolled in a mandatory cardiac rehabilitation program for a total of 36 sessions spread out over 12 weeks. This will help to ensure you are on the best road to recovery.

**Why does the dressing change for my driveline need to be sterile?**

The LVAD driveline that enters your abdomen runs directly to your heart. Infected driveline exit sites are very difficult to treat with antibiotics and can also infect the tissue around your heart including the pump. The greatest risk of infection is related to “pulls” or “tugs” to the driveline disrupting the skin around the tube. We will teach your caregiver or yourself to perform a sterile dressing change 3 times per week in order to give you the best chance possible of staying infection free. This dressing change will be done for the entire time you have the LVAD.

**Where will I get my dressing supplies for the sterile dressing changes?**

Our VAD Coordinators will make sure to order your supplies before you are discharged from the hospital. Your insurance may designate a specific company to provide your supplies and we will work with them to make sure your dressings are covered.
How long will my batteries last?

Generally patients get between 8-12 hours on one set of batteries. The manufacturer of the batteries guarantees at least 8 hours of use per pair of batteries. If you are getting less than 8 hours the company will generally replace the batteries for you through the VAD Coordinator.

Will I need to adjust the way I sleep?

Most patients adjust to sleeping with the LVAD. Our VAD surgeon will create the driveline exit site on one side of your abdomen. If you are used to sleeping on that side of your body you may be more comfortable learning to sleep on your back or the side of your body opposite of the driveline.

Will I be able to travel with my LVAD?

We encourage our patients to actively live their lives. Traveling by car is easy when using the AC adaptor to power your equipment for long drives. Traveling by plane requires a bit of advanced planning with the VAD Coordinator to make sure you have all the necessary paperwork for TSA. We will also provide education on how to handle your equipment during your air travel.

Can I take a shower with my LVAD?

For the first 3 months we ask that you do not shower. The small incision in your abdomen where the driveline exits your skin is healing during this time. An LVAD Coordinator will monitor the site during clinic visits and let you know when it’s time to begin showering. You will be given water resistant shower bags designed to keep your equipment safe while showering and you will need to frequently clean your shower heads.

Can I swim with my VAD?

Your LVAD is powered by electricity. The equipment that you are connected to outside of your body is not made to withstand submersion in water. You will need to stay out of the water including areas were you could possibly fall into the water. Walking in shallow water at the beach is NOT recommended. It is too easy for you to fall into the water or be splashed by a wave. If your VAD equipment is exposed to water your pump may stop and your equipment may be permanently damaged. This also includes exposing your equipment to rainfall. You will need to make sure you have a waterproof cover for your body if there is any chance you will be caught out in the rain.

Can I drive after I get an LVAD?

Our program does not restrict patients from driving with an LVAD. However, please check with your local DMV on the rules and restrictions for our state. Patients in our program are asked to wait 6 weeks after surgery before driving to make sure their incisions are healed.

Will I always have to take warfarin and aspirin?

Most patients remain on warfarin and aspirin indefinitely. You are at risk for forming clots inside the pump and in the tubes that connect it to your heart. Anticoagulants like warfarin and aspirin help to prevent blood cells from depositing on the pump components. Your VAD team will help you understand the importance of maintaining proper anticoagulation. We ask that you never stop your anticoagulation unless approved by one of our team members.

How long will I be in the hospital after surgery?

The average total length of stay in the nation for post operative VAD patients is 21 days. We are hopeful that your length of stay at Delray Medical Center will be 10-14 days for a normal hospital recovery period. You will be in the ICU for 2-5 days followed by a 10-14 day stay on the cardiac step down unit. If you were very sick before you LVAD surgery and were unable to engage in any physical activity you may need some extra physical rehabilitation in a special rehabilitation hospital. Our VAD team will work with you to make sure you are medically, physically and mentally ready to leave the hospital. Because not all patients are the same, the length of time in hospital may vary.
Can I go back to work?
Many of our patients return to work depending on the type of work they performed. We support patients going back to work and living an active lifestyle.

Will I still have to restrict my fluids?
You may need to actually increase the amount of fluid you drink to around 2 liters or more. The pump needs enough circulating blood volume to work properly. Your LVAD team will help you determine how many liters to drink each day. You may experience dizziness especially during the hot summer months and you will be able to relieve this by making sure you are well hydrated and changing positions slowly.

Will I continue to be on a salt restriction?
Salt can impair the body’s ability to get rid of water. You will continue to have problems with water retention (swelling) as long as you eat excessive amounts of salt. We ask that patients be mindful when eating out at restaurants and check food labels for sodium content when grocery shopping. We recommend <2 Grams of sodium per day.

Will I have to give up any activities?
We ask that you stay out of the water including swimming (except for showering) and avoid heavy contact sports with potential for injuries. You will be on anticoagulants and will be at high risk for bleeding. Our program promotes living a full but safe active lifestyle.

Are there any restrictions on intimacy?
You may safely resume intimate activities with your partner as soon as your incisions are healed which can take some time. Extra care will need to be taken to protect the driveline and exit site on your abdomen to prevent trauma and infection. Your VAD team will discuss this with you during your first few clinic visits after you leave the hospital.

What happens if my equipment breaks?
LVADs are very durable pumps. The parts of the system that do occasionally breakdown are the pieces that are outside of your body. If you take good care of your equipment it should last. We can order replacement pieces for any of the external components except for your driveline. Once this becomes extensively damaged it will have to be replaced. The driveline cannot be disconnected from the pump inside of you which means the pump inside of your chest will have to be replaced. We will show you the best way to care for your equipment.

What if my electricity goes out?
When you schedule your LVAD surgery we ask that you call your power company and ask them for a “priority restoration form”. You will need to fill out the account holder’s section of the form and the VAD Coordinators will take care of the rest. You will be discharged with 8 batteries and a battery charger. For most power outages this should be enough power. In the event that power has not been restored within 24 hours we recommend that you travel to a hospital, fire department or police station where you can charge your batteries and plug in other equipment.

Who do I call if I have an emergency?
In case of life threatening emergency, please call 911 first. You will be given our 24/7 on call number which is staffed by our LVAD RN Coordinators. You will never be alone.

I live far away from Delray Beach and I’m concerned that emergency providers in my home town won’t know what about my LVAD. What will happen if I have an emergency?
We send LVAD education to the EMS, fire department, local ER and your primary care physician when you are discharged home. If additional education is requested we will work with the device company representatives to provide hands on education. It is a good idea for you to call them and schedule a visit so that they can meet you and see the LVAD.
What are the most common complications?

Gastrointestinal bleeding and driveline infections are the most common complications. You will need to watch for signs and symptoms of bleeding and infection and report these immediately to our LVAD Coordinators. You will learn all about watching and reporting these signs and symptoms during the education sessions with the VAD Coordinator while you are in the hospital.

What emergency equipment will I need to carry with me?

You will have a travel bag that contains extra batteries and a spare controller. These must remain with you at all times. We ask that you always carry a current list of your medications in your wallet or travel bag. In addition, we ask our patients to wear medical alert bracelets that have specific information about the LVAD.