

Follow up

Follow up generally includes an in-office check at one week and six weeks after implant, then routine follow up is recommended every three months. Your follow up will be a combination of checks that can be done from your home with a remote monitoring system and in-office checks at the Pacemaker Clinic.

The programming of the pacemaker or ICD can be modified to best suit your needs. Programming changes can only be done when you come into the Pacemaker Clinic.

Seek medical care if:

You begin to gain weight or your feet and ankles swell.

You have dizzy spells or feel weak.

Your pulse rate drops below the lower rate of your device or if your pulse rate is too fast.

You have redness or swelling over your insertion site.

Seek immediate medical care if:

You faint or pass out.

You have chest pain or shortness of breath.

You are injured and think your pacemaker or defibrillator may have been damaged.

You are suddenly very tired or have pain in your back.

You have yellow drainage coming from the device insertion site.

You are worried that your heart is not beating right or cannot feel your pulse.

The Pacemaker Clinic is open weekdays from 8 a.m. to 4 p.m. Please call the Pacemaker Clinic at (920) 926-4781 if you have any questions or concerns related to your device.

Call your healthcare provider immediately if you experience any of the signs or symptoms listed below:

Drainage - pus coming from the incision

Opening of the edges of the incision

Increased pain (that is not getting better) around the incision or swelling

Temperature - warmth around the incision or fever

Odor from the wound

Redness worsening around the incision

PATIENT GUIDE TO ELECTROPHYSIOLOGY PROCEDURES

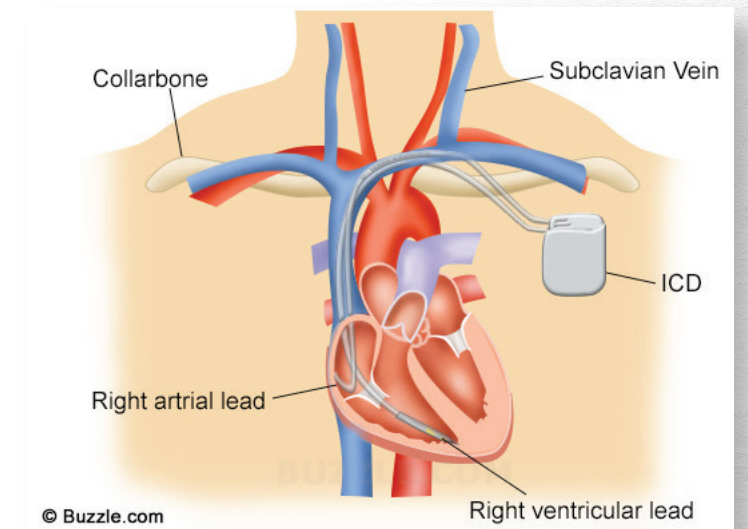
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Procedure: _____

Date: _____ Arrival Time: _____

What is an implantable cardioverter defibrillator?

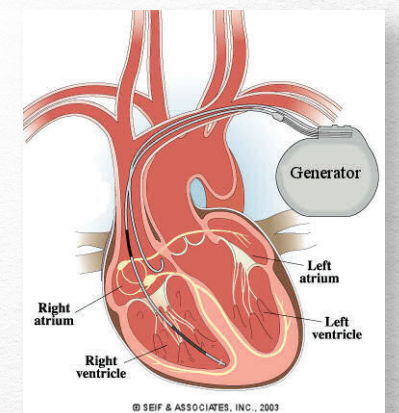
An implantable cardioverter defibrillator (or ICD) is a small, battery-operated device that monitors the heart's rhythm and provides appropriate treatment for life-threatening heart rhythms. If the heart begins to beat in a fast, disorganized way, the ICD provides a shock to restore a normal rhythm. A shock may feel like a strong jolt to the chest. Every defibrillator has a pacemaker in it. If your heart rate goes too slowly, the pacemaker kicks in and prevents the slow heart rate. You cannot feel pacing, pacing uses very tiny amounts of energy.



An ICD may be implanted for people with a history of cardiomyopathy (weak heart muscle) or for other factors that put them at risk for a cardiac arrest. This is called Primary Prevention. An ICD is also implanted for people who have had significant arrhythmias, syncope (passing out) related to arrhythmias, or who have survived a previous cardiac arrest. This is called Secondary Prevention. An ICD can quickly restore a normal heart rhythm and restore the pumping action of the heart.

What is a permanent pacemaker?

A pacemaker is a small, battery-operated device that sends electrical impulses to the heart muscle to maintain a stable heart rate. It is used to treat sick sinus syndrome, heart block or may be used to treat heart failure.



Types of pacemakers

- **Single-Chamber** - (1 lead) This type of pacemakers carries electrical impulses from the pulse generator to the right ventricle of your heart.
- **Dual-Chamber** - (2 lead) This type of pacemaker carries electrical impulses from the pulse generator to both the right ventricle and the right atrium of your heart. The impulses help control the timing of contractions between the upper and lower chambers of your heart.
- **Biventricular** - (3 lead) This type of pacemaker carries electrical impulses from the pulse generator to the right atrium, right ventricle and left ventricle of your heart. The impulses help control the timing of contractions between the upper and lower chambers as well as the timing between the right and left ventricle.

What Is a generator change?

The pacemaker or defibrillator is called a generator. The average battery life of a pacemaker or defibrillator is five to 10 years. When the battery reaches elective replacement time, your physician will inform you and schedule you for a generator change. This means taking the old generator out and connecting a new one. In most cases the leads will be reused and will not be changed.

THE NIGHT BEFORE YOUR PROCEDURE

- Take a shower the night before your procedure using Hibiclens soap that will be provided for you.
- Make a list of your current medications and bring it with you the day of your procedure.
- If you take long-acting insulin:

- Please make arrangements for someone to drive you home after your procedure. If you are having a new device (pacemaker or ICD) implanted, you will spend the night in the hospital. If you are having a generator change you will most likely go home the same day, unless specified by your healthcare provider.

THE DAY OF YOUR PROCEDURE

- You can have nothing to eat or drink after:

- If you take long-acting insulin:

- If you take short-acting insulin:

- The following medications should NOT be taken the morning of your procedure:

PLEASE TAKE ALL OF YOUR OTHER MEDICATIONS UNLESS SPECIFIED ABOVE.

- Special medication instructions for patients on Warfarin:

- You may want to bring a book to read, a tablet or something to entertain yourself. The cardiovascular lab does not run on a precise schedule as all of our procedures vary in length of time. While we strive to start your procedure as soon as possible, there are times when emergencies occur and your procedure may be slightly delayed.

Where do I check in?

Please enter St. Agnes Hospital at the main entrance located off Division Street by the stop and go lights. Check in at Hospital Registration located in the first floor hospital lobby. You will be directed to take elevator A in the hospital lobby. You may be directed to go directly to the Cardiac Cath Lab on the third floor or you may be directed to go to the floor where the room is located that you will stay in overnight.

What to expect

We will provide you with a hospital gown and ask that you undress. A nurse will review your past medical history and confirm your current daily medications. We will also obtain an electrocardiogram (EKG), start an IV and draw blood for labs. If necessary, your chest hair will be shaved.

During your procedure

- Because this is a sterile procedure, you will need to wear a hat and mask provided by the cath lab before entering the procedure room.
- You will be given IV fluids and medications that will help you to be comfortable and relaxed during the procedure. Medications, such as Versed and Fentanyl, may be given through your IV to help you relax and reduce discomfort. Your blood pressure, heart rhythm and respiratory rate will be monitored throughout the procedure.
- After the monitoring equipment is attached, your arms will be secured to your sides using soft-wrist restraints. This is for your safety and for infection prevention. The restraints will be removed as soon as the procedure is completed.
- You will receive an antibiotic through your IV.
- Your chest will be cleaned with antibacterial soap and a sterile drape will be placed over your body. Because the location of the incision is near your collar bone, the drape will cover your face. We will make a small window for you to look out of. You will be able to communicate with your nurse. Please let the nurse know if you are cold, are experiencing any discomfort or if you are feeling nervous or anxious.

After your Procedure

- The physician will apply a sterile dressing before leaving the cardiac cath lab.
- In order to reduce the risk of bleeding, you should sit up in bed higher than 30 degrees.
- You will be given a temporary ID card, which lists the company that makes your device, as well as model and serial numbers for your device. In about two to four weeks, you will receive a permanent ID card from the company that makes your device. Please carry the ID card with you in your wallet. You will need to show the ID card if you need to go through a metal detector, such as at the airport or when you enter some public buildings. Show the ID card to any doctors that you see outside of Agnesian HealthCare, such as your dentist or chiropractor.

Home care instructions

- Dressing Instructions: _____
- You may shower on:

Do not immerse your incision in water. No hot tubs, no tub baths, no swimming until after your one-week wound check or as instructed by your healthcare provider.

Do not use lotions or creams on your incision. Pat the incision to dry it; do not rub it.

Every day your incision should be less tender, less reddened, less swollen. If you notice the incision is becoming more tender, more reddened, more swollen, or if there is drainage from the incision, please call the Pacemaker Clinic.

- You may use the arm on the side the device was implanted, but try not to raise that arm higher than shoulder height for four weeks. There are no arm restrictions after a generator change.

Driving instructions: _____

Before discharge, your device may be checked by a Pacemaker Clinic nurse or by the representative from the pacemaker company. You will be given a transmitter that will allow some of your follow up checks to be done from home. You will be instructed on how to set up the transmitter and how to send a transmission before you are discharged or at your one-week check.

- Household appliances do not interfere with pacemakers or ICDs. It is safe for you to use your microwave and your computer.
- You may use a cell phone, but use it on the ear opposite your device. Never leave a cell phone in a pocket over the pacemaker or ICD.
- Please contact the Pacemaker Clinic if your healthcare provider would like you to have an MRI. You may be able to have an MRI because some devices are MRI compatible. The Pacemaker Clinic staff will review your device information with your cardiologist and will let you know if it is OK for you to have an MRI.

If you have an ICD and you receive a shock:

If you get a shock from your defibrillator (ICD) and you feel OK afterward this is not considered an emergency. Please call the Pacemaker Clinic within 24 hours to report the episode.

If you get a shock from your defibrillator and you do not feel OK afterward (chest pain, shortness of breath, dizziness, syncope (passing out) or if you get more than one shock, this is considered an emergency and you should call 911 and go to the Emergency Department.

Remember if you get a shock from your defibrillator it is doing what it is intended to do.