

# About Your New Pacemaker

## Cardiology Pacemaker Service

Lawrence E. Widman, MD, PhD  
Cardiac Electrophysiology Consultants of South Texas, P.A.  
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### **1 Short List of Instructions**

1. Keep the elbow next to your side for 48 hours after the implantation. You can do anything you want with the other arm and with your legs.
2. Keep the incision dry for 48 hours after the implantation. Then, you can shower but do not scrub the area near the pacemaker.
3. Beginning about 48 hours after the implantation, you should move around your arm that is on the side of the pacemaker so that the shoulder will not get stiff. But, do not move it above your shoulder for one month. After one month, you may lift your arm above your head.
4. Do not lift heavy weights with the arm on the side of the pacemaker for three months.
5. Call your doctor or Dr. Widman immediately if the incision or the area near the pacemaker are red, swollen, more painful than before, or warm to the touch. You do not need to check for these signs more than once a day.

## 2 During the Next Few Weeks and Months

1. You will have an appointment in Pacemaker Clinic or with your referring physician one week after implantation for wound inspection, staple removal (if necessary), and device interrogation. If all goes well, you will then be given an appointment for three months after the first visit.
2. You should keep the incision area dry for two days to allow the skin to heal fully. This means that you should not shower. If you want to shower anyway, you should cover the incision with a plastic barrier to keep it dry during the shower. The reason for this restriction is that a breakdown in the incision line increases the chance of infection.
3. Please remember that the single greatest problem that can occur with a permanent pacemaker is infection of the device, which usually requires that the pacemaker and its lead(s) be removed surgically. *The signs of infection are redness, swelling, warmth (to the touch), and unusual pain.* If you see anything suggesting infection, he or she should call the Pacemaker Service the same day.
4. The activity of the arm on the side on which the pacemaker was placed (usually the left arm) is restricted as follows:
  - (a) In a sling for 48 hours. This is to remind you to keep the arm by the side. The purpose is to avoid dislodging the leads coiled behind the pacemaker, and to avoid digging the surgical staples further into the skin.
  - (b) Below the level of the shoulder for one month. It is important to use the arm normally after the first 48 hours, to avoid “frozen shoulder” syndrome. I saw this develop in a 20-year old man who kept his arm by his side for 2 weeks instead of two days. He had to have physical therapy to loosen it up!
  - (c) Light weights only for the first three months. The arm can and should be raised above the level of the shoulder after the first month, but should not be used to lift weights of more than 10 pounds.
  - (d) Unrestricted activity after the first three months.

## 3 Things to Keep in Mind

1. There are risks of having a pacemaker that can appear after the device is implanted. The incision usually heals in a thin line, but sometimes develops into a thicker scar. Late infections can occur, but are unusual. Over time, the leads that connect the pacemaker to the heart can go bad and need to be replaced. Lead replacement is usually a routine procedure.

Over time, the pacemaker's battery will run out of energy. The pacemaker is designed to give warning months in advance of when it stops working. When this warning is found in the Pacemaker Clinic, you will be scheduled for pacemaker replacement. During pacemaker replacement, the pocket is opened, the old generator is removed, the leads are tested, the new generator is implanted, and the wound is closed. The surgery is usually routine, but can be difficult because it is important not to damage the leads when the pocket is opened. Sometimes the lead(s) are found to be bad, either because of natural processes or damage during the surgery. In this case, new lead(s) will be inserted during the same surgery. Again, this is usually not a difficult task.

2. You will receive in the hospital a paper ID card and an educational booklet prepared by the company that manufactures the pacemaker. You will receive a permanent plastic ID card in about 4 to 8 weeks. You should keep the ID card with you at all times in case you need to seek emergency medical care.
3. Life with a pacemaker
  - (a) You will set off the metal detector in the airport every time. Therefore, you should ask the guards to use a hand scanner.
  - (b) Microwave ovens do not affect modern pacemakers.
  - (c) The newer *digital* cellular telephones can interfere with the operation of all but the newest pacemakers. Because of the variety and rapid changes in digital cellular telephone technology, it is not possible to generalize about whether a particular telephone will interfere with a particular pacemaker. The best procedure is to test a specific telephone unit in the physician's office. Alternatively, the you can make sure that the telephone never gets closer than 6 inches to the pacemaker while it is turned on.
  - (d) The manufacturer of the pacemaker has an 800-number that you can call at any time for more information if Dr. Widman is not available.

## 4 Background Information

Patients receive permanent pacemakers for a variety of reasons, but the most common in the older age group are "sick sinus syndrome" and complete heart block. "Sick sinus syndrome" includes a range of different pathological rhythms. The combination of atrial fibrillation or flutter with spontaneous or drug-induced atrioventricular block is the usual meaning of the term. Other rhythms that can be included in this syndrome are symptomatic sinus bradycardia and spontaneous atrioventricular block occurring at low to normal atrial rates. What all these have in common is that the heart goes too slow, either because its conduction system is diseased or because the conduction system

must be slowed down to prevent rapid heart rates during atrial fibrillation and/or atrial fibrillation.

Pacemakers have been around for decades, and they are now quite small and very reliable. Implantation is usually routine. There are a few points to keep in mind that determined how decisions were made in your case:

1. Active infection anywhere in the body is a big problem because when a pacemaker or its lead(s) become infected, they almost always must be removed in order to cure the infection.
2. Pacemakers can be implanted on either side of the body. Because of the risk of swelling of the ipsilateral arm (which usually responds to anticoagulation), the pacemaker is usually placed on the patient's nondominant side. Therefore, we asked whether the patient is left- or right-handed, and also whether the patient uses rifles or shotguns and, if so, with which shoulder.
3. If a patient has an implantable cardioverter-defibrillator (ICD), the pacemaker is usually placed on the *same* side. This maintains the other subclavian vein intact in case the one in use thromboses over the years, and then the patient needs to have a lead replaced. The tradeoff is the risk of infecting both the new and the old devices.

## **5 Contact information**

Please call Dr. Lawrence Widman if you have any questions. The office number is 210/615-9500, and the email address is *pacemaker-service@cecst.com*.