Beth Israel Deaconess Medical Center
A teaching hospital of Harvard Medical School
330 Brookline Avenue
Boston, MA 02215
www.bidmc.harvard.edu

information

Biventricular pacemaker procedure

You have been scheduled to receive a biventricular pacemaker. Your procedure is scheduled for:

_____

Call us if you have questions

- Please call us at 617-632-7456 if you have any questions about these instructions.

Someone will call you one-two days before your procedure to tell you what time to arrive at the medical center.

Your procedure is on the **west campus** of the medical center. West campus parking is available in the Pilgrim Road Garage (entrance is on Crossover Street, which is reached via Pilgrim Road or Autumn Street), or in the 110 Francis Street Garage (Lowry Building Garage), located on the corner of Brookline Avenue and Francis Street (and also accessible via the Riverway). The person driving should bring the parking ticket into the hospital. He/she must pay before returning to the car. In addition, the ticket can be validated in the Farr Lobby for a reduced rate.

Please go to the Farr Building entrance at 185 Pilgrim Road. (See enclosed map.) Once you are in the Farr lobby, take a **left** at the gift shop and follow the signs for the Baker elevators. Take the **Baker elevators to the 4th floor**, where you will check in at the reception desk.

What is a biventricular pacemaker?

A biventricular pacemaker is an electronic device that your doctor has recommended to try to improve your breathing and fatigue and to decrease your episodes of congestive heart failure. Its function is to make the lower right and left chambers of the heart beat together more effectively. It consists of a generator implanted just below the collarbone underneath the skin, and wires that extend into the right- and left-sided chambers of the heart.

Preparing for your pacemaker procedure

- **Several days before your procedure**
  - → If you take warfarin (Coumadin, Jantoven), your doctor will ask you to stop taking it several days before your pacemaker procedure. Please ask your doctor when you should stop taking your warfarin. Some patients (such as those who have had certain types of heart valve surgery) need to stay in the hospital while they are stopping their warfarin. Your doctor will let you know if this applies to you.

- Please continue to take other medicines your doctor has prescribed, including any aspirin or Plavix, unless your doctor tells you otherwise.

- A nurse from the cardiology department will be contacting you one-two days before your procedure. The nurse will talk with you about your medical history and will ask you about your medications and any allergies you may have. Please have a list of your medicines, including the doses, ready. The nurse may give you further instructions on changes in your daily medications that may be needed before your procedure.

- Please tell the nurse if you have had any recent infections, fever, or chills, or if you have been taking antibiotics for any reason.

- **The night before your procedure**
  - **Please do not eat or drink anything after midnight the night before your procedure.**

- **The morning of your procedure**
  - Follow the instructions given to you by the nurse regarding what medicine to take and not to take on the morning of the procedure. You may have a small sip of water to swallow any medicine you may need. As noted above, you should not take warfarin (Coumadin, Jantoven). You should also not take diabetes pills. If you take insulin, you will be asked to take less than usual since you will not be eating, and not to take any short-acting insulin.

  - If you use inhalers or nebulizers, you may use these according to your regular schedule.

  - Please bring a list of your medicines with you to the hospital. For prescription medicines, **please be sure to write down the following information as it appears on the medicine bottle: the exact name of the medicine, the strength, and the instructions on how to take the medicine**. Also bring a list of any non-prescription medicines you take – including over-the-counter medicines, vitamins, herbs, and supplements.

What to expect

- After you check in, you will go to a holding area to wait for your procedure. To protect your privacy and that of all of our patients, families are not allowed in the holding area. Your family may wait in the reception area on the 4th floor.

- In the holding area, you will change into a hospital gown and be asked to go to the bathroom to empty your bladder. You will rest on a stretcher in the holding area until it is time for your procedure. Here, you will meet nurses who work in the holding room, EP (electrophysiology) nurses, nurse practitioners, and the EP fellow (a

cardiologist specializing in electrophysiology). These are the people who will be helping your doctor with the procedure. A nurse will connect you to a heart and blood pressure monitor and place an intravenous line (IV) in your arm. Some patients have blood drawn at this time. Men will have their upper body shaved and will have an external catheter (condom catheter) put in place for the procedure.

- When it is time for your procedure, you will be taken into the EP (electrophysiology) lab. You will be connected to more monitors and may receive oxygen. You will receive medicine through your IV to help you relax, as well as an antibiotic. As the sedative takes effect, you will feel very sleepy and comfortable, but you will not be unconscious. The nurses will scrub your shoulder with a cleaning solution and place clean cloths over your chest and part of your face. Your hair will be covered in a hat.

- Your attending cardiologist will be present in the room for the more critical aspects of the procedure.

- Before the device is placed under your skin, the EP fellow will administer numbing medicine to the area. Once the area is numb, you may feel tugging or pulling, but no pain. If you feel discomfort, please tell the nurse.

- The device will be placed under the skin, and the wires will be threaded into your heart. During the procedure, you may feel some extra heartbeats which is expected but should not be uncomfortable.

- When the procedure is finished , the nurses will place a bandage over the area where the device was inserted and will put a sling on that arm. You will then be taken back to the holding area, where you will wait for your inpatient bed.

- The whole procedure takes approximately two-four hours.

Inpatient stay

The nurses and assistants will settle you into your room. You will be on bedrest overnight, with an arm in a sling, and the head of your bed elevated. All your usual medications will be provided. You may need pain medication, and this will be available to you upon request. Some patients may have portable chest x-rays upon arrival to the floor.

In the morning you will go off the floor for an x-ray, and the EP fellow or NP will check your pacemaker. Once this is completed you may – with the nurse's assistance – get out of bed and walk around. You will no longer need the sling. Antibiotics intravenously will continue while you are hospitalized and a prescription for oral antibiotics will be provided to you for two-seven days when you are discharged.

After discharge

A follow-up appointment in the device clinic in one week will be made for you prior to your discharge from the hospital. You will remain on antibiotics for a short period after discharge. Patients who take warfarin (Coumadin, Jantoven) will need blood tests within five days after discharge. You will be asked not to shower for one week and not to drive for one-two weeks. For six weeks, you should not lift more than five pounds or raise the affected arm above the height of your shoulder.

The wound
If your wound becomes red, swollen, more painful, or develops drainage from the site, call your MD or the nurses at the device clinic (617-667-9383) as you should be evaluated in the office urgently. The site may be slightly uncomfortable for a few days and you may require Tylenol as needed. Frequently there are steri-strips on the site which should be allowed to fall off with time and not be pulled off. Once you are able to shower (after your one-week device clinic appointment), do not allow water to directly contact the steri-strips; just let it rinse over the wound.

Long term issues
You should be able to return to your normal activities with your affected arm six weeks after the pacemaker implant. You will not be able to have an MRI after your pacemaker is put in. You may use microwaves – there is no effect on your pacemaker. You may use cell phones, but do not place them directly over the pacemakers and hold the phone one foot away from the pacemaker. Radio remote control or other electronic devices are permitted. However these must be held at least one foot away from your pacemaker.

Follow-up
You will be seen in the device clinic one week after the pacemaker implant where you will receive a machine which will allow for home telephone checks of the pacemaker. You will then be seen two months post pacemaker implant in the device clinic. At that point some changes will be made in your pacemaker programming to save the battery of the device. Following that appointment you will be seen every three-six months in the device clinic, with coinciding appointments with your BIDMC cardiologist.

This material was developed by clinicians in cardiology at Beth Israel Deaconess Medical Center. It is produced and distributed by Beth Israel Deaconess Learning Center. © 2007, Beth Israel Deaconess Medical Center. All rights reserved.
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