Beth Israel Deaconess Medical Center
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information

# Biventricular internal cardiac defibrillator (ICD)

*Information for patients*

**Call us if you have questions**

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

You have been scheduled to receive a biventricular internal cardiac defibrillator, or ICD. **Your procedure is scheduled for:**

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Someone will call you 1-2 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 ICD?

A biventricular ICD is an electronic device that your doctor has recommended to try to improve your breathing and fatigue and to decrease your episodes of heart failure. It also has the capability to correct dangerous heart rhythm problems. 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 ICD procedure

- **Several days before your procedure**
  - → If you take warfarin (Coumadin), your doctor will ask you to stop taking it several days before your ICD 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 1-2 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.

- The nurse will go over your preparations and answer any questions.

- 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. Do not eat or drink until after your procedure is over.**

- **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). 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 urinary catheter (condom catheter) put in place.

- When it is time for your procedure, you will be taken into the EP 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, 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. 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 on your chest and the wires will be threaded into your heart. During the procedure, you may feel some extra heartbeats which is expected.

- Once the device is in place, the defibrillator portion will be tested. You will be given additional sedative for this phase, which lasts only a few minutes.

- 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 3-4 hours.

## Your stay in the hospital

You will stay one night in the hospital. You'll need to stay in bed with your head elevated until the next day. The nurses will provide your usual medicines as well as any pain medicine you may need. You may get an x-ray in your room. You will continue to get antibiotics by IV. In the morning, you will go to the x-ray department for a chest x-ray, and then back to the EP lab. There, members of the EP team will check your ICD. Once this is done, you may get up and begin walking with the nurse's help, and you will no longer need the sling on your arm.

## Your recovery and follow-up

You will receive detailed discharge instructions before you leave the hospital. These will include information on:

- **Driving** - You will not be allowed to drive for at least 2 weeks following your ICD implant. This is different for everyone. Please ask your doctor when you may resume driving.

- **Showering** - You will not be allowed to shower for one week.

- **Pain management** - Most patients do not have a lot of pain once they go home. The area may be slightly sore. Usually, mild medicine such as acetaminophen (Tylenol) controls the discomfort.

- **Wound care -** You will be asked to watch for signs of infection. You will have small paper strips over the wound (steri-strips) which will fall off on their own.

- **Activity** - Activities involving the arm near the device will not be allowed for 6-8 weeks, including reaching, golf, tennis, and swimming. You will not be able to lift more than 5 pounds for 6-8 weeks. After this, you have only a few restrictions in activities to avoid things that could interfere with your device. You may not have MRI (magnetic resonance imaging), and arc welding is not allowed. Microwaves are ok. You may use cellphones and remote controls and other electronic devices, but these must be held at least one foot from the ICD. You will be given instructions about walking through security gates or being scanned with security wands.

- **Medications** – You will remain on antibiotics for 2-4 days after discharge. Patients who take warfarin (Coumadin) will need blood tests within 5 days of discharge.

- **Follow-up** – You will have appointments in the device clinic one week after discharge, 2 months after discharge, and then every 3-6 months. You'll be given detailed instructions about what to do if your device delivers a shock.

## Common questions

***Will I feel anything when the device is working?*** When your device is working as a pacemaker –helping the heart chambers work more efficiently together – you will not feel anything. The electrical impulses used for this function are not strong enough for you to feel. If your device senses a serious heart rhythm problem, it delivers a quick impulse that is much stronger. Most patients can feel this impulse. Fortunately, it is very quick, but it can be uncomfortable. It has been described as feeling like getting kicked in the chest, but it lasts less than a second. (Remember, this should only happen if you suddenly develop a serious rhythm problem.)

***How long does the battery last?*** The battery usually lasts 5-8 years. After that time, we change the generator. This is usually done as an outpatient procedure.

***How will I know if the ICD is working right?*** Your device checks itself every day. If it detects any problems with the leads, the battery, or the device itself, it will sound a beeping alarm. You will be told what to do if you hear the alarm.

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