The procedure is performed in an operating room under general anesthesia. Once the patient is prepared for surgery, the physician makes an incision close to the old device, and the generator is removed. The most difficult part of this procedure is not removal of the device, but removal of the leads. The level of difficulty is typically related to the amount of scar tissue that has formed since the device was implanted. If the wires are unable to be removed with gentle pulling, a special laser extraction device is used. This device consists of a sheath wrapped in laser fiber optics is advanced through the targeted vein and over the lead. The physician applies a controlled dose of laser energy to break up (ablate) any scar tissue and free the lead that is then pulled out.

Every circumstance is different, so your doctor will let you know if a new pacemaker or defibrillator system will be implanted at that time or after a course of antibiotics. Patients can expect to be in surgery for approximately four hours and are usually admitted for one night in the hospital for monitoring and observation if no further treatment is required.

PREPARATION FOR LASER LEAD EXTRACTION

We will discuss the procedure — its purpose, benefits, and potential risks — before the procedure. Laser lead extraction is a common, low-risk surgical procedure with a very small risk of complications. These may include: puncture of the heart or lung tissue, damage to the vein, infection, bleeding and/or bruising, or other uncommon events. The risk of bleeding in chest or around heart requiring cardiac surgery, or death is less than 0.2%. You’ll be asked to sign a surgical consent form before you have this procedure. If you have any questions or concerns, be sure to call our office.
PROCEDURE

Usually you’ll be instructed not to eat or drink anything after midnight the evening before your procedure. You may, however, take sips of water to swallow pills. If you’re coming to the hospital as an outpatient, you’ll be told where and when to report. You should plan for an overnight stay and arrange for someone to drive you home.

The procedure is performed in an electrophysiology lab or hybrid operating room under general anesthesia with surgical back up. Just prior to the procedure, an intravenous line (IV) will be inserted into your arm to administer any necessary medication, including a sedative to help you relax. The area over the PM/ICD will be washed with an antiseptic and shaved, if necessary. Then, you’ll be moved by stretcher or wheelchair to an electrophysiology (EP) laboratory where you’ll be positioned on a special table and covered with sterile drapes. The entire EP staff, who have been trained specifically in the electrical activity of your heart, will be wearing surgical hats and masks to assure that everything remains sterile throughout your procedure.

As the procedure begins, you’ll receive an injection to numb the incision site. The physician makes an incision over the old device pocket. The old device is extracted, and the leads are separated from the pocket by careful electrosurgical dissection. Then laser fiber optic sheaths are advanced over the leads carefully under X ray guidance. The laser sheath cuts the scar tissue around leads and is carefully advanced to the tip of the lead until the lead is free and then it is pulled out easily.

YOUR RECOVERY

After your procedure, you’ll be taken to a hospital room or recovery area. You will be kept overnight in the hospital so that your heart can be monitored and to be certain the PM/ICD if in place continues to function properly.

If you begin to feel some discomfort in the incision area when the local anesthetic wears off, let the staff know and they’ll give you some medication to help make you more comfortable. Be sure to tell your nurse if you experience any unusual symptoms such as hiccups, dizziness, or chest pain.

Make sure you arrange for someone to drive you home when you are discharged. Before you leave the hospital, you’ll be given detailed instructions about caring for the incision site. We will also explain follow-up plans and discuss what signs and symptoms should be reported.
HEALTH MAINTENANCE

Your PM/ICD will help protect you against dangerous heart rhythms. However, you also play an important role in staying healthy. Be sure to keep all appointments for exams and follow-up tests. Follow your instructions, don’t hesitate to talk about your concerns. As always, if you have any questions, be sure to call our office.