

## **Explant Procedure**

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### **Explanting the IPG Only**

#### Pre-Explant Preparation

An EndoStim IPG explant is performed under local or general anesthesia and under sterile conditions. An antibiotic prophylactic coverage should be administered prior to procedure.

#### Opening the Pocket and Removing the IPG

1. It is recommended to cut around the existing scar to gain access to the IPG.
2. Gently remove the IPG from its fibrous capsule, with the lead still connected.
3. Use the torque wrench (screwdriver) to back off the two setscrews by turning each of them counter-clockwise for at least one rotation.
4. Gently pull the lead from the IPG header cavity.
5. Cover the connector with a silicone cap (commercially available, e.g. Oscor) and secure to the fascia.
6. It is recommended to flush the pocket with a disinfectant/antibiotic solution before suturing the incision.
7. Suture the subcutaneous tissue and skin.

### **Explanting the IPG and Lead**

Use the same surgical equipment and pre-operative considerations as described in the Implant Procedure for the Lead and IPG section. In addition to the optics and insufflation port, use three additional ports, two working ports and one for the liver retractor. An assistant port may be also required.

#### Opening the Pocket and Removing the IPG

1. It is recommended to cut around the existing scar to gain access to the IPG.
2. Gently remove the IPG from its fibrous pocket, with the lead still connected.
3. Use the torque wrench (screwdriver) to back off the two setscrews by turning each of them counter-clockwise for at least one rotation. If an EndoStim torque wrench is not available, a standard IS-1 pacemaker torque wrench may be used.
4. Gently pull the lead from the IPG header cavity.
5. If the set screws do not loosen or if there is a significant fibrotic reaction preventing access to the set screws, the lead can be cut.

#### Electrode Explant Procedure

1. Retract the liver.
2. Take down any adhesions between the implantation site and the liver.
3. Cut through the fibrous tissue capsule that covers the silicone butterflies.
4. Cut off the two proximal sutures of the silicone anchor. Cut the nylon suture distally just below the 2 titanium clips to allow for reverse pull of the electrode from the esophagus.

5. If there is significant fibrosis around the silicone anchors and/or the titanium clips, consider leaving the electrode(s) in place. It is acceptable to cut the lead in pieces to avoid significant surgical effort.

#### Lead Extraction from the Abdominal Cavity

1. Pull the lead (or lead segments) out through one of the working ports.
2. If there is significant fibrosis inside the abdominal cavity, the surgeon should use judgment on how to extract the lead. It is acceptable to cut the lead in pieces to avoid significant surgical effort.
3. If possible, the titanium clips should be removed as well.

#### Surgical Pocket Closure

1. Carefully suture the subcutaneous layer above the IPG before suturing the skin.
2. Withdraw the ports and suture the puncture lesions.
3. It is recommended to apply antibiotic ointment over the sutures and cover with a sterile dressing.

### **Post-Operative Care**

Instruct the patient to wear a compression binder over the pocket for at least 30 days post operatively. This will reduce the chances for fluid accumulation and the possible formation of seroma. Provide instructions for standard post-operative treatment and follow up appointments.