Two quick and simple techniques for the repair of groin hernias.

Technique Guide
Classic Technique
Modified Technique

Each PerFix™ Light Plug comes with a pre-shaped onlay patch measuring 6 cm x 13.7 cm (2.4" x 5.4").

Please add the PerFix™ Light Plug to my preference card.

I would like to have the PerFix™ Light Plug in stock.

Surgeon’s Signature ____________________________________________
Purchase Order Number _________________________________________
Catalog Number ________________________________________________
Date ______________ Quantity ________________________________

Davol Inc. • Subsidiary of C. R. Bard, Inc. • 100 Crossings Boulevard
Warwick, RI 02886 • 1.800.556.6275 • www.davol.com

Medical Services & Support 1.800.562.0027
Please consult product labels and inserts for any indications, contraindications, hazards, warnings, precautions and instructions for use.

Bard, Davol and PerFix are trademarks and/or registered trademarks of C. R. Bard Inc.
The techniques presented herein are for informational purposes only. The decision of which technique to use in a surgical application lies with the surgeon based on patient profile and previous surgical experience.

Davol, a Bard Company, thanks Mark Moskowitz, MD, FACS for his contribution to this content. Dr. Moskowitz has a consulting relationship with Bard.

**Table of Contents**

- Benefits of PerFix™ Light Plug ........................................... 2
- Dissection ........................................................................... 3-7
- Indirect Hernia
  - Classic Technique ......................................................... 8-9
  - Modified Technique ..................................................... 10-12
  - Onlay Patch Placement ................................................ 13
- Direct Hernia
  - Classic Technique ......................................................... 14
  - Modified Technique ..................................................... 15-18
- Femoral Hernia ................................................................. 19
- Indications, Contraindications, Warnings, Precautions and Adverse Reactions ......................................................... 20-21

**Live life tension-free with a lighter-weight version of our PerFix™ Plug**
**Benefits of PerFix™ Light Plug**

**Lighter Weight:**
- Approximately 50% lighter than PerFix™ Plug.
- Lighter-weight monofilament polypropylene mesh.
- Reduced amount of implanted material.

**Flexible:**
- Dynamic design conforms to defect.
- Inner petals and onlay patch can be trimmed, customizing to patient.
- Tension-free repair achieved with Classic or Modified Techniques.

**Trusted:**
- Same design as clinically-proven PerFix™ Plug, which has been used in over 4 million implants worldwide.
- Proven design and materials.

---

### Access to Inguinal Canal

Using suitable anesthesia, make a 4-5 cm incision beginning one finger width away from the pubic tubercle extending toward the anterior superior iliac spine. Enter the inguinal canal through the external oblique.
Mobilize the spermatic cord and separate the cremasteric fibers.

Dissect the hernia sac from the cord structure within the internal ring using a high dissection, not a high ligation.

Reduce the hernia sac through the internal ring.
3 Direct Hernia Dissection

Circumferentially incise the attenuated transversalis fascia in order to create an opening into the preperitoneal plane. Invaginate the hernia sac into the preperitoneal plane.

*Note: Dissect sac at its mid-point in the Classic Technique; dissect sac at its base in the Modified Technique.*

4 Femoral Hernia Dissection

Make a 4-6 cm oblique incision starting at the pubic tubercle, advancing toward the anterior superior iliac spine. The dissection is then directed toward the thigh, making this an infrainguinal approach.

Dissect the hernia sac free from surrounding tissue. The sac may be carefully ligated and dissected if it is too bulky to be reduced.
A large plug is typically used. Some of the inner petals may be trimmed if less mesh is required for smaller defects.

Using an Allis clamp, grasp the outer cone and place the PerFix™ Light Plug into the preperitoneal space.

*Note: The PerFix™ Light Plug is available in four sizes. The small, medium and large plugs have eight inner petals. The extra large plug has three inner cones. For each size, the petals or cones may be trimmed to customize the plug to the defect.*

Secure the plug with a minimum of 1-2 absorbable sutures. More sutures should be used for a patulous internal ring.
Some inner petals of the PerFix™ Light Plug may be trimmed if less mesh is required for smaller defects.

Using an Allis clamp, grasp the inner petals of the PerFix™ Light Plug (not the outer cone) and insert the plug through the internal ring, deep into the preperitoneal space.

Note: The PerFix™ Light Plug is available in four sizes. The small, medium and large plugs have eight inner petals. The extra large plug has three inner cones. For each size, the petals or cones may be trimmed to customize the plug to the defect.

When placed correctly, the outer cone of the plug will spread open beneath the transversalis fascia in the preperitoneal space to form an underlay patch.
Suture any of the inner petals with 2-3 absorbable sutures along the internal oblique muscle. It is not necessary to select certain petals or to suture all of the petals to secure the plug. For a large internal ring, place an additional suture through an inside petal, securing it to the lateral shelving edge of the inguinal ligament.

An onlay patch is used to reinforce the potentially weakened area over Hesselbach’s triangle. It can be slit and tailored. Secure the tails of the patch loosely around the spermatic cord with 1-2 tacking sutures, then lay the patch on top of the inguinal floor. It is not necessary to suture the onlay patch to the transversalis fascia.
Direct Plug & Patch Placement

Grasp the outer cone of the PerFix™ Light Plug with an Allis clamp. Insert the plug into the preperitoneal space. The plug should not be stretched to fill the defect. Secure the plug with 8-10 absorbable sutures. Larger defects may require additional sutures.

An onlay patch is used to reinforce a potentially weakened indirect space. It can be slit and tailored. Secure the tails of the patch loosely around the spermatic cord with 1-2 tacking sutures, then lay the patch on top of the inguinal floor. It is not necessary to suture the onlay patch to the transversalis fascia.

Direct Plug Placement

Place a suture through the middle inner cone of an extra large PerFix™ Light Plug to facilitate suture placement to Cooper's ligament once the plug is in place.

Using an Allis clamp, grasp the inner cone and seat the plug deep into the preperitoneal space, allowing the outer cone of the plug to spread in the preperitoneal space and cover the posterior aspect of the defect.
Secure the middle cone of the PerFix™ Light Plug to the conjoined tendon, shelving margin of the inguinal ligament and Cooper’s ligament. Depending on the size of the defect, 5-10 sutures may be required. The fluted cone of the PerFix™ Light Plug allows for expansion and contraction of the mesh for a tension-free repair.

When placed correctly, the outer cone of the plug will open and flatten out in the preperitoneal space.
An onlay patch is used to reinforce a potentially weakened indirect space. It can be slit and tailored. Secure the tails of the patch loosely around the spermatic cord with 1-2 tacking sutures, then lay the patch on top of the inguinal floor. It is not necessary to suture the onlay patch to the transversalis fascia.

Remove all the inner petals from a small or medium PerFix™ Light Plug, and insert the plug into the femoral canal. Secure the plug with several interrupted sutures. The onlay patch is not required.
Indications:

The PerFix™ Light Plug is indicated for reinforcement of soft tissue, where weakness exists, in procedures involving soft tissue repair, such as groin hernia defects.

Contraindications:

1. Literature reports that there may be a possibility for adhesion formation when polypropylene mesh is placed in direct contact with the bowel or viscera.

2. Do not use the PerFix™ Light Plug in infants or children, whereby future growth will be compromised by use of such mesh material.

Warnings:

1. The use of any permanent mesh or patch in a contaminated or infected wound could lead to fistula formation and/or extrusion of the mesh.

2. If an infection develops, treat the infection aggressively. Consideration should be given regarding the need to remove the mesh. An unresolved infection may require removal of the device.

3. This device is supplied sterile. Inspect the packaging to be sure it is intact and undamaged prior to use.

4. This device is for single use only. Do not resterilize or reuse any portion of the PerFix™ Light Plug.

5. To avoid injury, careful attention is required if fixating the mesh in the presence of nerves or vessels.

Precautions:

1. Please read all instructions prior to use.

2. Only physicians qualified in the appropriate surgical techniques should use this device.

3. Monofilament sutures are recommended to properly secure the PerFix™ Light Plug.

4. When two or more plugs are used for large direct or pantaloon hernias, they should be joined together with sutures where the plugs abut.

Adverse Reactions:

Possible complications include seroma, adhesions, hematoma, inflammation, extrusion, infection, pain, mesh migration, fistula formation and recurrence of the hernia or soft tissue defect.