Medtronic

Designed for:
- more technology
- more coverage
- more porosity
- more transparency

Dextile™ anatomical mesh

More than a 3D mesh

We designed **Dextile™ anatomical mesh** for effective hernia repair.
Specifically for minimally invasive inguinal hernia surgery,[1]
including conventional TAPP and TEP and robotic TAPP surgical approach.[2,3]

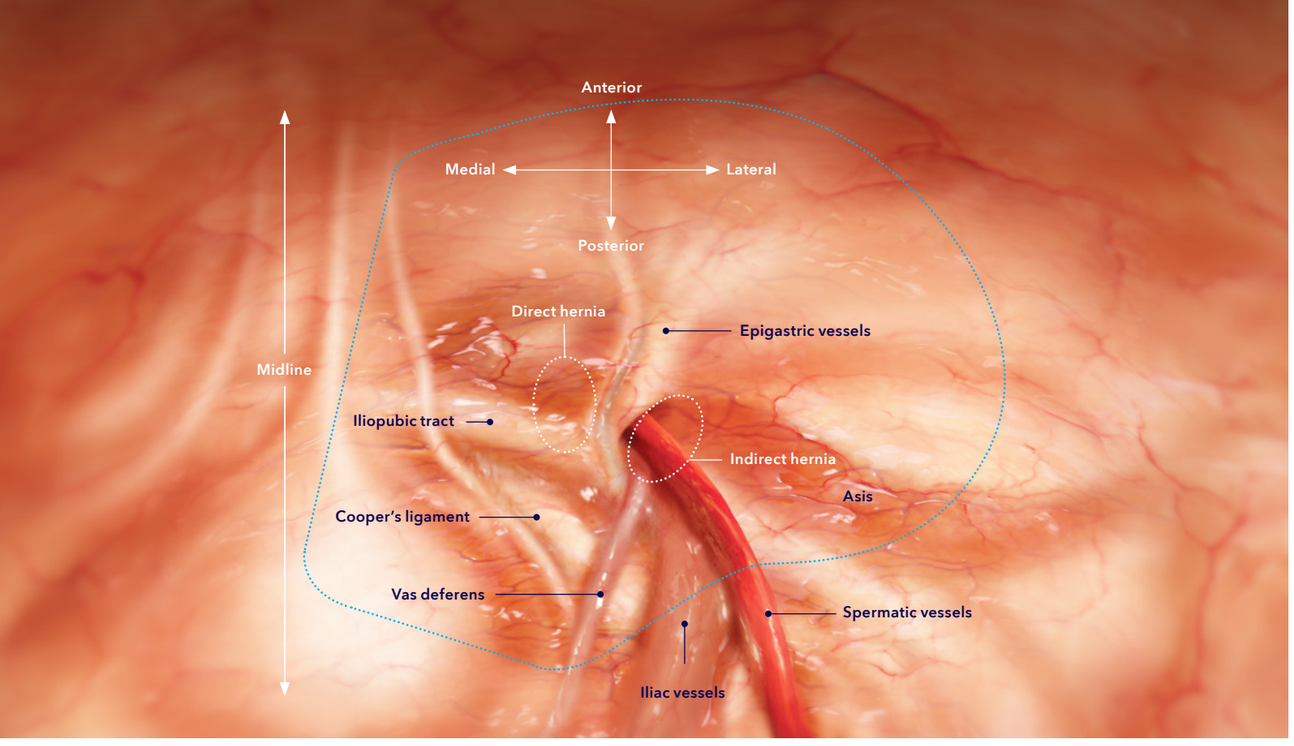


Figure 1. The myopectineal orifice after a proper dissection has been completed.

The importance of a critical view (CV)

The critical view (CV) of the myopectineal orifice (MPO) is appropriate exposure of the anatomical area. It must be achieved before the mesh is placed during minimally invasive inguinal hernia repair.[4]

Implementing a CV of the MPO can help standardize an increasing variability in laparoscopic and robotic inguinal hernia repair. The objective of the CV of the MPO is to facilitate surgeon training, reduce recurrence, and lower the risk of complications which helps achieve better patient outcomes.[4]

Dextile™ anatomical mesh is designed for wide coverage of the MPO which conforms well with the properly dissected inguinal anatomy to provide efficient inguinal hernia repair.[6]

More than you expected

MPO critical view proper mesh alignment

The design of our Dextile™ mesh anatomical supports ease of placement and positioning for optimal inguinal hernia repair.[3,6,7]

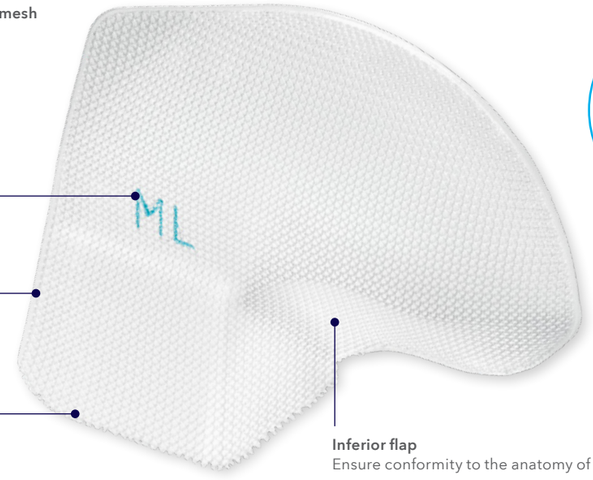
We recommend performing a proper dissection to obtain the CV of the MPO as described in published guidelines. Ensure a CV of MPO through proper dissection before mesh insertion.

Important features of Dextile™ anatomical mesh
Shown is a right-side extra-large size mesh (16 × 12 cm)

ML marking
Orient mesh towards the medial aplane[4,6]

Medial edge
Overlap the midline

Unsealed inferior edge
Place into the retropubicspace[3,5,6†]



Inferior flap
Ensure conformity to the anatomy of the patient's inguinal space

The shape you want for the coverage you need

ML = Medial Line
† Depending on the size of the defect, patient conditions, and procedure.

Nine steps to establish a critical view (CV) of the myopectineal orifice (MPO)‡

1. **Identify** and **dissect** the pubic tubercle across the midline and Cooper's Ligament (CL). For large, direct hernias, extend the dissection to the contralateral CL.

   Visualise anatomy to **rule out a direct hernia** before dissection. Remove unusual fat in the Hasselbach triangle.

2. **Dissect at least 2 cm between CL and the bladder** to facilitate flat placement of the mesh toward the space of Retzius, thereby avoiding mesh displacement caused by bladder distention.

3. **Dissect between CL and the iliac vein to identify the femoral orifice and rule out a femoral hernia.**

4. **Dissect the indirect sac and peritoneum sufficiently to parietalize the cord's elements** until the cord's elements lie flat. Then, visualize the psoas muscle and iliac vessels, pull the sac and peritoneum upward without triggering movement of the cord's elements, and dissect between the cord's elements to avoid missing a tail of the sac.

5. **Identify and reduce cord lipomas.** Usually lateral to the cord's elements, they should not be confused with lymph nodes (which are generally spared). Most lipomas do not require removal, but should be placed above the mesh to help prevent mesh rolling upward.

6. **Dissect peritoneum lateral to the cord's elements laterally beyond the anterosuperior iliac spine (ASIS), sweeping it back inferiorly well behind the mesh's inferior border.**

7. **Perform the dissection, provide mesh coverage, and ensure that mesh and mechanical fixation are placed well above an imaginary inter-ASIS line and any defects,** thereby avoiding recurrence and nerve injury, especially to the ilioinguinal nerve.

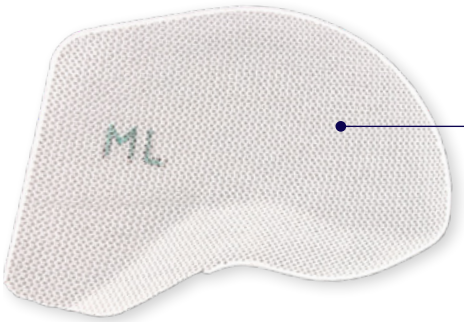
8. **Place the mesh only when items 1 to 8 are completed and hemostasis has been verified.** Mesh size should be at least 15–10 cm, although a larger piece of mesh is sometimes required to cover the MPO. Preferably, choose mesh that adapts to the contour of the space and the cord's elements. It should not have undue memory. Place it without creases or folds. Avoid splitting the mesh. Ensure that its latero inferior corner lies deep against the wall and does not roll up during space deflation (use glue or careful suturing if necessary).

‡ Jorge Daes, MD, FACS (Department of Minimally Invasive Surgery, Clinica Portoazul, Barranquilla, Colombia) and Edward Felix, MD, FACS (Department of Surgery, Marian Regional Medical Center, Santa Maria, CA.), Critical View of the Myopectineal Orifice Annals of Surgery, Volume 266, Number 1, July 2017.

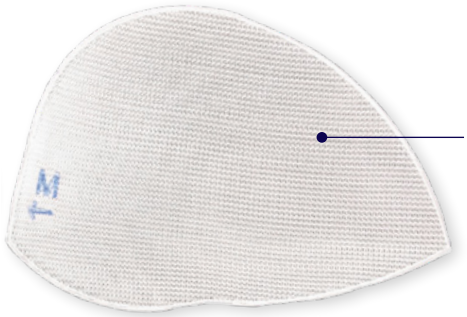
More knowledge, greater coverage

Shape and coverage comparison

Our Dextile™ anatomical mesh has a patented 3-D anatomical shape that aligns with the contours of each side of the inguinal region. It also provides wide coverage of the MPO to minimize risk of recurrence.[4,5,9,12,13]



Dextile™ anatomical mesh
Size L



Bard 3DMax™*
Size L

Dextile™ mesh versus 3DMax™*

Dextile™ mesh provides wide anatomical coverage,[3,5] easy intraoperative handling, large pore size for enhanced transparency and excellent tissue ingrowth.[6,8,9] These combined characteristics in Dextile™ anatomical mesh are designed to provide more efficient inguinal hernia repair compared to 3DMax™*.[3,5,6,8,11]

Clinician feedback

"Good medial and lateral coverage in Dextile™ anatomical mesh leads to good standardization of technique."
MIS surgeon in Belgium; currently uses 3DMax™*

"This is true anatomical mesh – pursues the natural boundaries of the myopectineal orifice."
General surgeon in Columbia; currently uses 3DMax™*

Ordering information

Item number	Description	Dimensions	Size	Qty
DXT1309AL	Dextile™ anatomical mesh (Left × 1)	13 × 9 cm (5.1" × 3.5")	Medium	1
DXT1309AR	Dextile™ anatomical mesh (Right × 1)	13 × 9 cm (5.1" × 3.5")	Medium	1
DXT1510AL	Dextile™ anatomical mesh (Left × 1)	15 × 10 cm (5.9" × 3.9")	Large	1
DXT1510AR	Dextile™ anatomical mesh (Right × 1)	15 × 10 cm (5.9" × 3.9")	Large	1
DXT1612AL	Dextile™ anatomical mesh (Left × 1)	16 × 12 cm (6.3" × 4.7")	X-Large	1
DXT1612AR	Dextile™ anatomical mesh (Right × 1)	16 × 12 cm (6.3" × 4.7")	X-Large	1

To learn more about the Dextile™ anatomical mesh, please contact your local Medtronic representative.

References

1. Based on Phycher report #IMP-Toxsys-1 month-PH-19-0218 final report. August 2019. **2.** Based on internal report #43008CR343Robotically Assisted Inguinal Hernia surgery-review considering Dextile™ anatomical mesh. September 2019. **3.** Based on internal report, Dextile™ anatomical mesh, surgeon interview report. July 2019. **4.** Daes J, Felix E. Critical view of the myopectineal orifice. Ann Surg. 2017l;266(1):e1–e2. **5.** Based on internal report #43008CR339, Support for marketing claims related to surface of Dextile™ anatomical mesh vs. competitors. August 2019. **6.** Based on internal test report #43008CR268, Design output file Merlin. February 2019. **7.** Based on internal report #43008CR326, Support for marketing claims related to Dextile™ anatomical mesh handling. August 2019. **8.** Based on internal report #43008CR336, Support for marketing claims related to the Dextile™ anatomical mesh transparency. August 2019. **9.** Based on Medtronic patent #US-20180318057-A1, Prosthesis for inguinal hernia repair. November 2018. **10.** Weyhe D, Cobb W, Lecuivre J, et al. Large pore size and controlled mesh elongation are relevant predictors for mesh integration quality and low shrinkage – Systematic analysis of key parameters of meshes in a novel minipig hernia model. Int J Surg. 2015;22: 46–53. July 2015. **11.** Based on internal report #43008CR315, Dextile™ Anatomical Mesh vs 3DMax light -510(k) (v1.0) August 2019. **12.** Surgical Product Surveillance Registry – Dextile™. Interim Clinical Study Report.Version 1.0. February 2022 Version. 1.0. February 2022. **13.** Herniamed Registry Extraction. Dextile™ anatomical mesh. 30-Day and 1-Year Data (Medtronic). Dr F. Köckerling. March 2022.

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