



# **THD** Doppler

Minimally invasive surgical treatment for hemorrhoids

Document intended for Health Care Professionals only.



# THD Doppler

Minimally invasive surgical treatment for hemorrhoids

## THE THD SOLUTION:

Hemorrhoidal arterial ligation and mucopexy are able to:

- reduce the arterial hyperflow
- lift in the prolapsed tissue
- restore anatomical and physiological status of the anal canal
- preserve sphincter integrity and continence

by reducing the arterial hyperflow to the hemorrhoidal plexus (thus this gauging the hemorrhoidal tissue) and repositioning prolapse mucosa the anatomical conditions is restored.

This procedure has by now proved to offer durable results in Grade II, III and IV hemorrhoids with clear advantages in terms of:

- mild post-operative pain
- short recovery
- quick return to normal activities
- sphincter preservation
- can be performed even as a redo of previous procedures



## UNTIL NOW:

Hemorrhoidectomy (open or closed) was considered the surgical gold standard for treatment of hemorrhoids, is however marred by:

- important post-operative pain
- long recovery
- delayed return to normal activities
- rare but severe complications
- risk of impaired sphincter continence



# **THD**Doppler

To perform the THD® Doppler Method a combination of a Doppler and LED light source generator with a dedicated operative anoscope have been designed

**THD**Revolution

**THD**Slide



## **BENEFITS**

### **SAFE**

Because the procedure is performed under direct vision and because it's non-excisional, no severe complications have ever been reported in literature.

### **FAST**

Cases are typically performed in 30 minutes or less.

### **COST EFFECTIVE**

This being an outpatient procedure keeps cost down with low material cost combined with short hospital stay and limited pain medication.

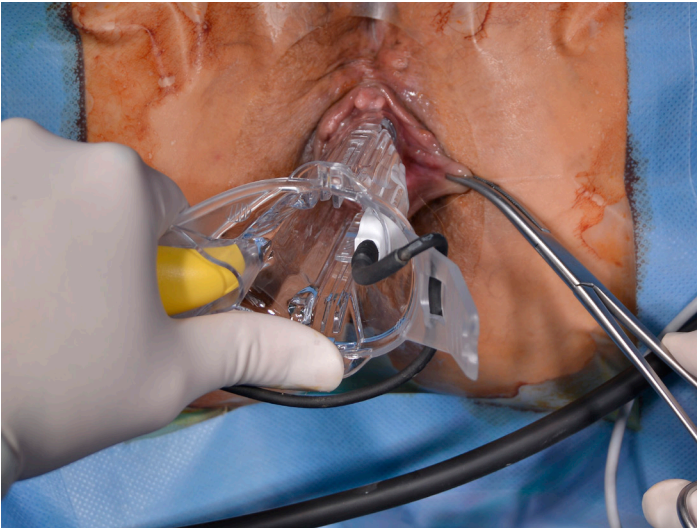


# THD® Doppler METHOD

1

## Dilation and device insertion

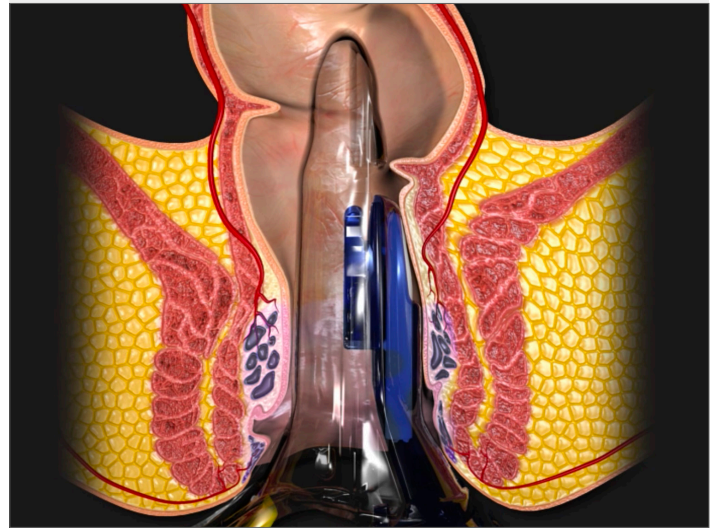
Dilate the anus by using a clamp to avoid that the prolapse goes back inside.



2

## Full device insertion

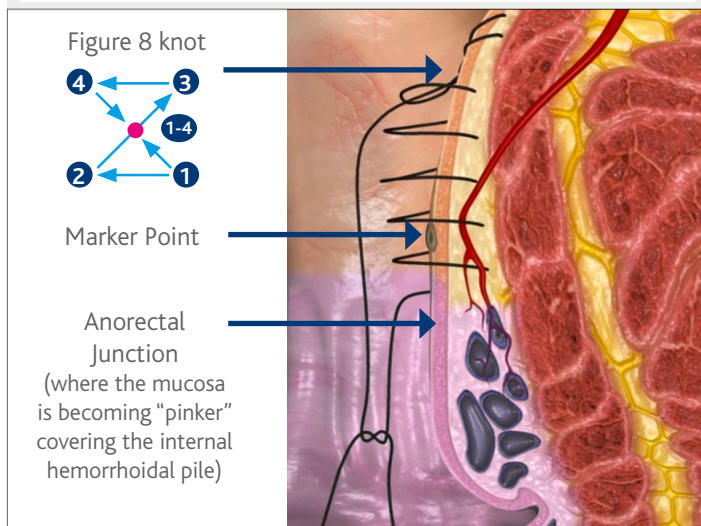
Introduce gently and deeply the proctoscope starting from a specific section (like 3 o'clock).



5

## Running suture

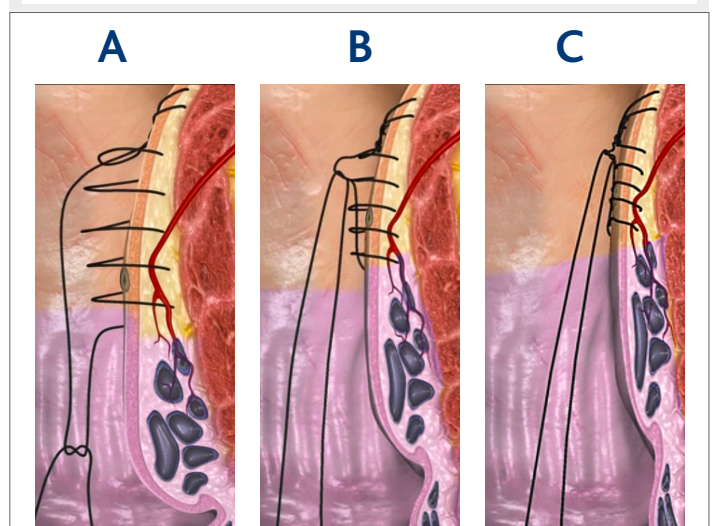
Pull back the sliding part of the proctoscope to perform a continuous suture (5 mm between each bite) until the marker point inclusion and then reach the anorectal junction.



6

## Prolapse lifting

Closing the knot, the prolapsed tissue will be lifted inside restoring the anatomical condition.

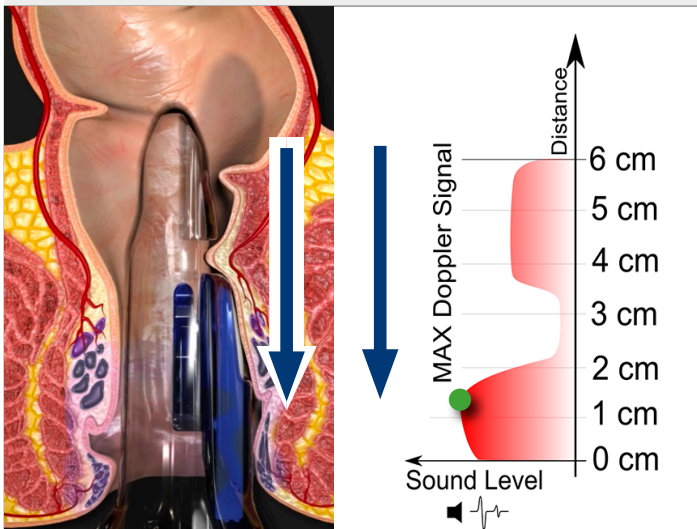


# THE BASIC STEPS

**3**

## Optimal signal and marker-point finding

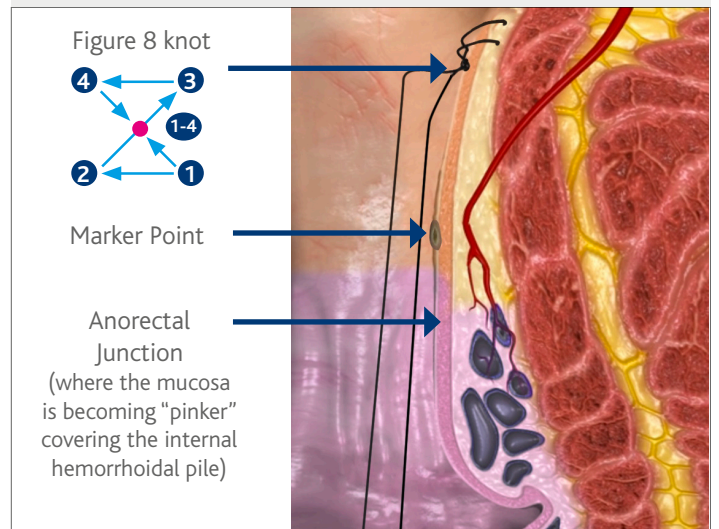
Retract and move distally the device searching for maximum Doppler signal, usually just above the anorectal junction. The marker point is placed with an electrocautery (or a surgical marking pen).



**4**

## Anchor point

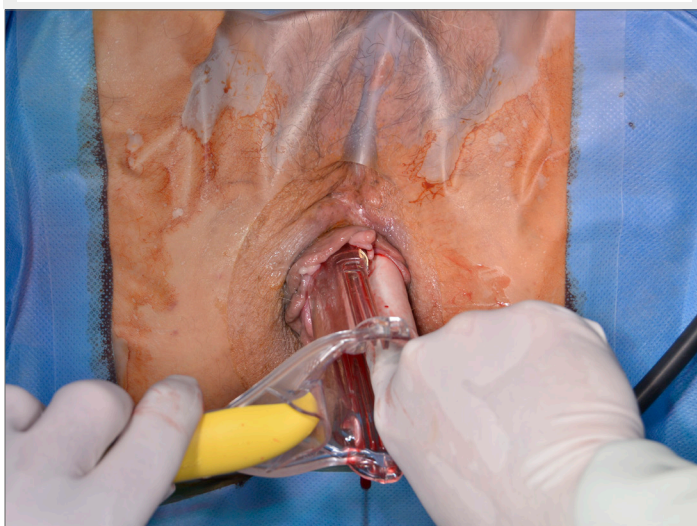
Complete reinsertion of the device and placement of the fixation stitch as an anchoring point.



**7**

## Device extraction

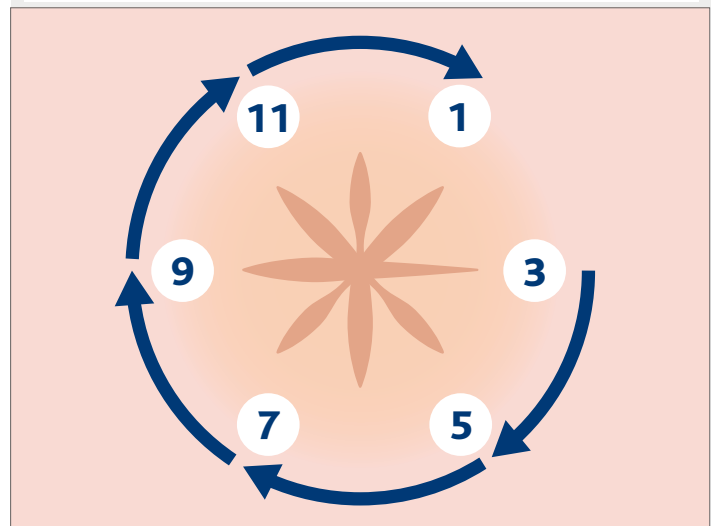
Gently extract the device protecting the mucopexy with a finger.



**8**

## Repetition of the procedure

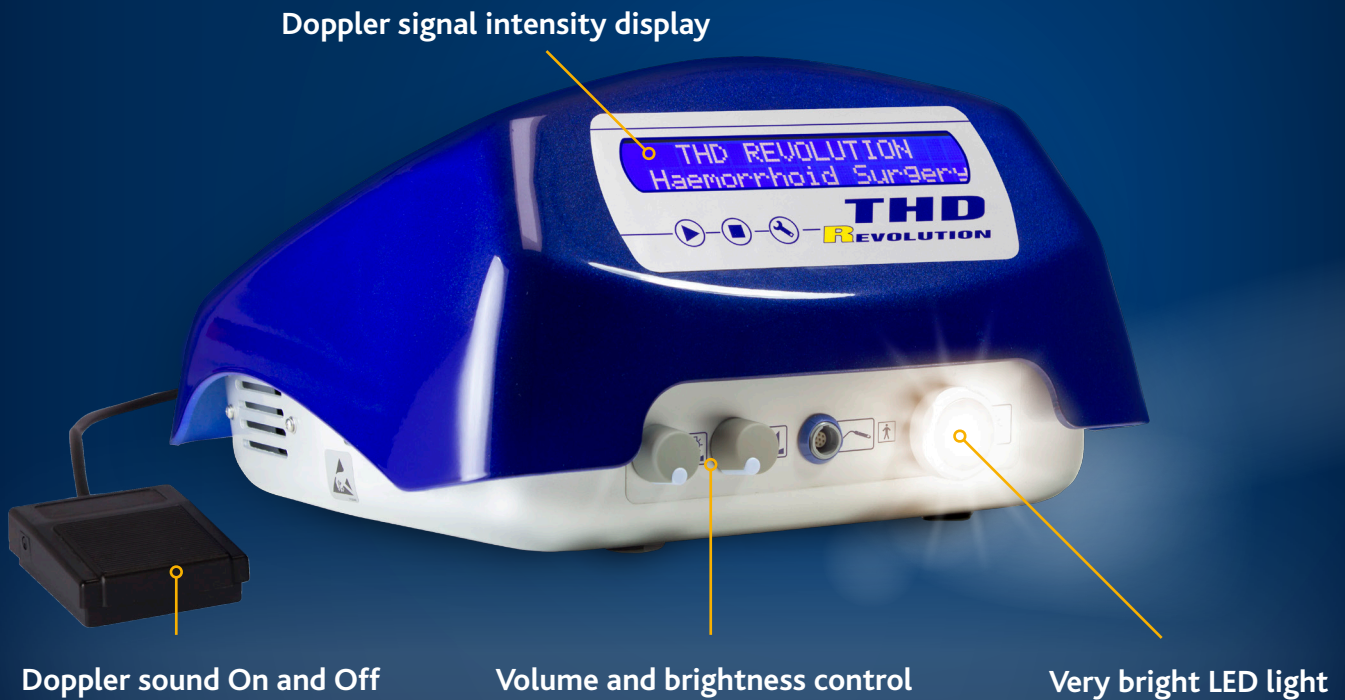
Repeat the procedure moving clockwise.





# THD Revolution

All-in-one Doppler and LED light generator



## FEATURES

All-in-one Doppler signal processor and LED light generator.

Highly sensitive continuous wave Doppler for an easy detection and location of the vessels to transfix and for a confirmation of the modified Doppler signal subsequent to the ligation.

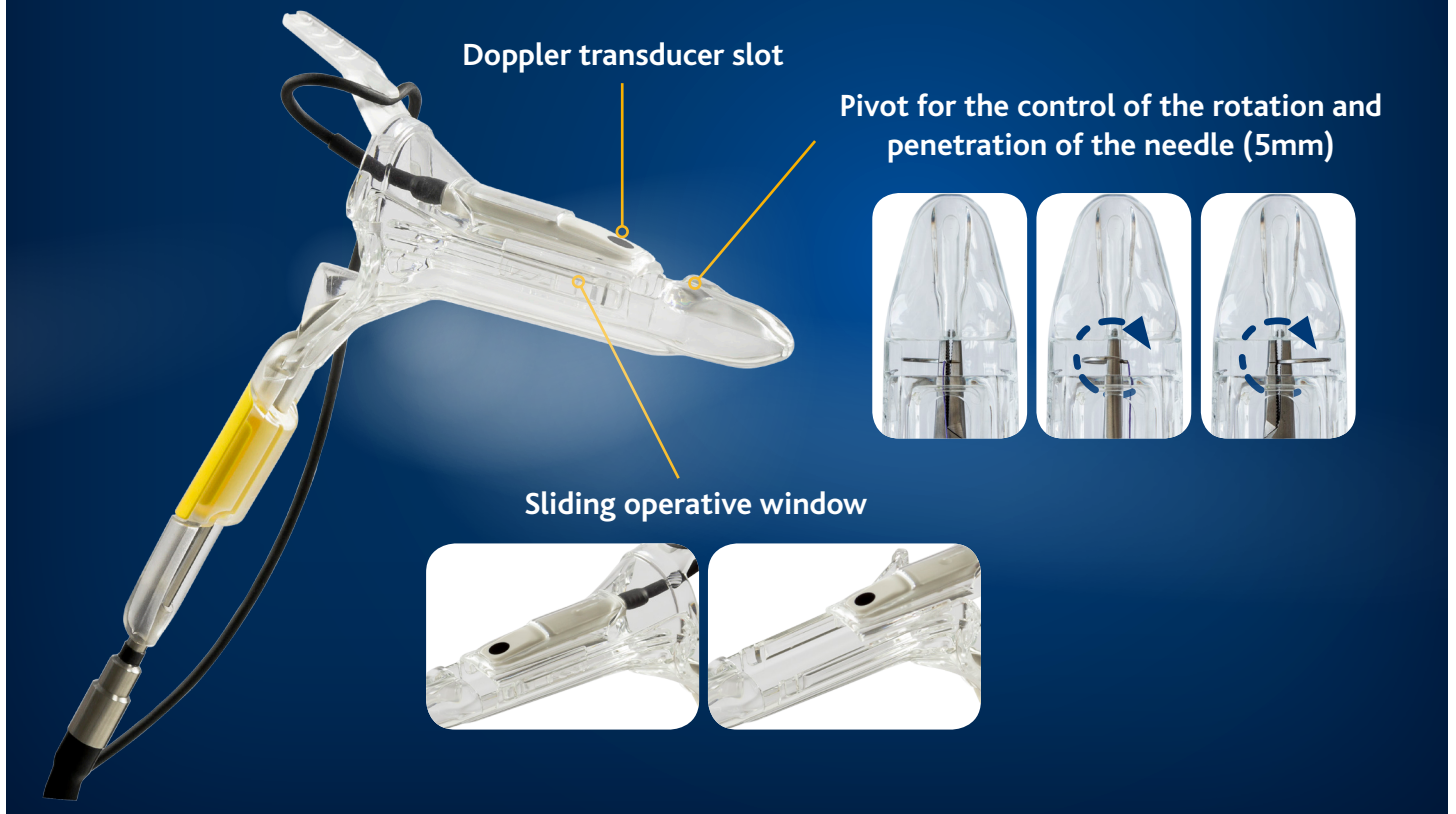
Very bright illumination of the operative field.

Both the volume and the brightness are controllable by adjusting the knobs on the front panel.

An On / Off footswitch allows for muting the Doppler sound during the procedure once the vessel has been located.

# THD Slide

Customized surgical anoscope



## FEATURES

Operative anoscope specifically designed to perform the procedure.

Ergonomic handle also fitting the tip of the fiber optic cable for illumination.

A patented pivot in the front of the proctoscope allows for total control of the rotation and penetration (5mm) of the needle.

The operative window can be longitudinally incrementally extended by sliding the top of the proctoscope letting the operator perform a continuous suture pexy unimpaired by excessive prolapse falling down into the operative field.

Medical grade plastic allowing for clear vision of the operative field.

# SPECIFICATIONS

## THD Revolution

Part No. 800133

- Includes
- 1 Generator box
  - 1 Muting pedal
  - 1 Medical grade power cord
  - 1 Reusable fiber optic cord with curved tip
  - 1 Single use Doppler
  - 1 Reusable gold handled needle driver



## THD Slide One Kit - Sterile

Part No. 800065-10

- Includes
- 10 THD® Slide One anoscope (Sterile)
  - 10 Single use/disposable Doppler (Sterile)
  - 10 Disposable needle driver (Sterile)
  - 10 Box sutures (6 pieces, sterile)
  - 10 Knot pusher (Sterile)
  - 10 THD® Slide anoscope Sutures Spon (Sterile)



## THD Slide Kit

Part No. 800066-10

- Includes
- 10 THD® Slide anoscope single use (Sterile)
  - 10 Knot pusher (Sterile)
  - 10 Disposable needle driver (Sterile)
  - 10 Suture (env. with 6 pcs each-Sterile)
  - 2 Doppler 5 times use (Not Sterile)
  - 10 Sterile sponge (Sterile)



## THD Slide ENV Kit

Part No. 800168-10

- Includes
- 10 THD® Slide anoscope single use (Sterile)
  - 10 Knot pusher (Sterile)
  - 1 Reusable needle driver (Not Sterile)
  - 10 Suture (env. with 6 pcs each-Sterile)
  - 1 Doppler 10 times use (Not Sterile)



## Accessories & Spare Parts

Part No. 880014-1	Rolling Cart	THD® Revolution Rolling Cart
Part No. 880000-1	TrueGlyde Sutures	Box of 6 TrueGlyde Suture
Part No. 880003-1	Gold Handled Needle Driver	Reusable, laser etched needle driver
Part No. 880025-1	Fiber Optic Cord	Fiber optic Cord with curved light tip
Part No. 880006-1	Muting Pedal	THD® Revolution Muting Pedal
Part No. 880050-20	Spon	Anal sponge (Sterile)

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