

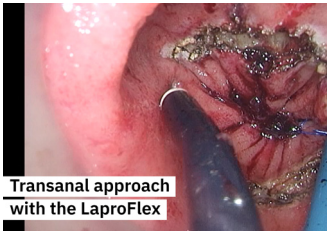
Technical Briefing

LaproFlex Monopolar Hook

First feedback on the use of LaproFlex monopolar hook

Over the last year, well over a hundred surgical procedures were performed with the monopolar hook (MH) version of our LaproFlex device. Up to now, this device proved to be exceptionally useful in multiple procedures, of which the following four types of procedures are an example:

TAMIS/TATME



During a TAMIS procedure, at least three devices (e.g. scope, grasper and monopolar hook) are introduced through the access platform (e.g. gelpoint) into the tight area of the rectum. The LaproFlex MH can be manoeuvred and orientated in the full range of the scope view without interfering with the view & other instruments. Outside the patient, space can be created between the handles of the instruments to avoid collisions.

Watch a video of a TATME being performed with a LaproFlex MH [here](#).

"I can work fluently without struggling with the scope."
– B. van Wely, M.D.

Cholecystectomy



A swollen gallbladder is difficult to grab to mobilize to a position so that a standard monopolar hook is able to cut along the recess with the liver. The LaproFlex MH can be bent around the liver, over the gallbladder and in between the graspers so that it exactly follows the contour of the gallbladder.

Watch a video of a cholecystectomy being performed with a LaproFlex MH [here](#).

"The LaproFlex monopolar hook can reach under the gallbladder for easy dissection from the liver."
- D. Lips, M.D.

LAR



During a low anterior resection, it can be difficult to approach the proper area. Anatomical structures and instruments (i.e. graspers, scope) are hindering the access. With the LaproFlex MH, the trocar can be positioned wherever is comfortable for the surgeon, and still the hook can be oriented properly to the target area.

Watch a video of a LAR being performed with a LaproFlex MH [here](#).

"The LaproFlex monopolar hook can move over blocking organs and in between hindering instruments. I could even use a retractor to lift the anterior side of the pelvic area."
– J. Baral, M.D.

TLH



The uterus is located along the midline of the abdominal cavity. To mobilize the uterus or execute a colpotomy, instruments need to approach the uterus from different sides. Combined with a standard bipolar grasper, the LaproFlex monopolar hook can approach all sides of the uterus from a single point of entry.

Watch a video of a TLH being performed with a LaproFlex MH [here](#).

"You can approach the target perpendicular and always guarantee optimal exposure."
– J. Rhemrev, M.D.

The stories above show great promise for the future of the LaproFlex MH, with the general benefit of access of the target area, with minimal, comfortable movement of the surgeon. DEAM is looking forward to codevelop the best techniques for more and more types of procedures.

Practices and Tips

From these first hundred procedures, some conclusions regarding the best practices with the MH were drawn.

To begin with, three videos showing the optimal techniques and how-to's during varying procedures are presented in this document, available by clicking the hyperlinks:

1. [Counter steering](#), how to apply force to tissue without unintentionally flexing the steerable tip.
2. [Transanal & single port](#), how to optimally apply the steerability when using a single port approach.
3. [Grip options](#), how to find and use the perfect grip for you, to optimize the benefits of the LaproFlex.

Regarding the generator, please consult the generator manual to keep the maximum voltage below 1000 V (as an example, the settings for the the ERBE VIO 3 V 1.0X are shown in Table 1).

In addition, keep in mind that some generators may need an adapter for attaching monopolar devices (as an example, the adapter for Valleylab generators is shown in Figure 1).

Table 1. Example of generator settings to use with the LaproFlex MH

| Generator | CUT mode | Only use effect/power | COAG mode | Only use effect/power |
|--------------------|-----------|-----------------------|--------------|-----------------------|
| Erbe VIO 3 V 1.0.x | autoCUT | up to 10 | softCOAG | up to 10 |
| | highCUT | 1 to 8 | forcedCOAG ° | 1 to 3 |
| | dryCUT | 1 to 6 | swiftCOAG | 1 to 3 |
| | endoCUT I | 1 to 4 | sprayCOAG | Do not use |
| | endoCUT Q | 1 to 4 | preciseSECT | 1 to 4 |
| | | | twinSECT | 1 and 2 |



Figure 1. Example of adapter for Valleylab generators

Instructions for use

Finally, it is important to reemphasize the importance of taking into account the instructions for use and safety warnings of the LaproFlex MH, as with any monopolar instrument.

WARNINGS:

- ⚠ If end effectors are used outside the field of vision, there is a risk that tissue and accessories could be damaged unintentionally. Always hold the parts being used to interact with tissue in a target-oriented manner within your field of vision.
- ⚠ Do not activate the HF power when the device is not in contact with target tissue, as this may cause injuries due to capacitive coupling with other surgical equipment or cause damage to the device.
- ⚠ Do not activate the HF power when the when the end effector of the device is in close proximity or touching any electrically conductive accessories or fluids.
- ⚠ Do not activate the HF power when the device is in the presence of flammable or explosive substances.

CAUTION:

- ⓘ Keep the end effector contact surfaces clean during use of the device. Wipe off encrusted residues or body fluids, using a moistened swab.