

Procedure Overview

# Radical Nephrectomy

with ENDOEYE FLEX 3D



# Radical Nephrectomy

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## Disclaimer

**This procedure overview demonstrates the technique utilized by Dr. Lluís Peri Cusi, MD, of the urology department at the Hospital Clínic Barcelona (Spain).**

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# Radical Nephrectomy

## About the Procedure

### General Information

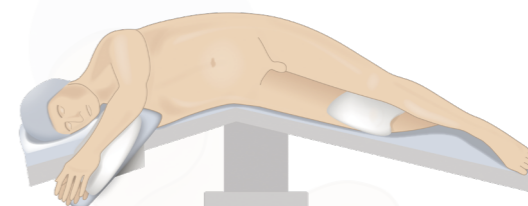
A radical nephrectomy is a surgical procedure where a kidney is completely excised from the body of a patient. The procedure can be performed using an open-surgery or a laparoscopic (trans- or retroperitoneal) approach. However, laparoscopic radical nephrectomy has been shown to result in lower morbidity, improving patient recovery.<sup>1</sup>

### Indications

Main indications: malignant diseases, e.g. renal tumors.  
Other indications: benign diseases, e.g. donor, infection, lithiasis, etc.

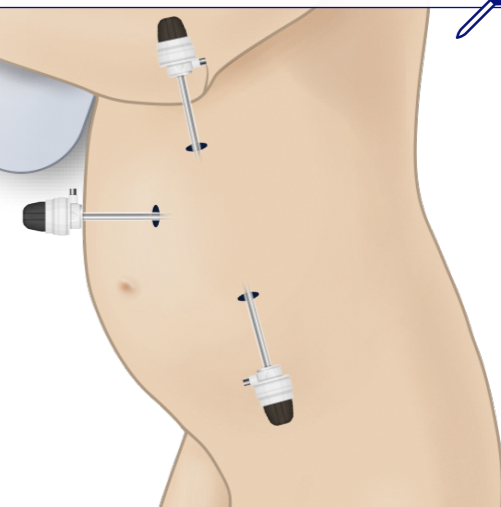
### Patient Positioning

Placement in lateral decubitus, with a slight lateral flexion in order to improve the access to the renal bed. The patient's position is secured using an arm holder. The pelvis is surrounded using a drape that will attach the patient to the operating table.



### Trocar Positioning

- The camera port is placed on the pararectal line, slightly above the umbilicus. Then the pneumoperitoneum is created.
- The two other ports are placed on each side of the first.



# Radical Nephrectomy

## Procedure Steps

### Advantages of ENDOEYE FLEX 3D

The **flexible tip** of the ENDOEYE FLEX 3D<sup>2</sup> enables the surgeon to observe hidden areas in the anatomy more easily with a greater depth and prevents instruments clashing as the scope can be kept away from the surgeon's working area.

#### 1. Trocar Placement



- ENDOEYE FLEX 3D facilitates trocar placement since the camera will adapt to the morphology of the patient.

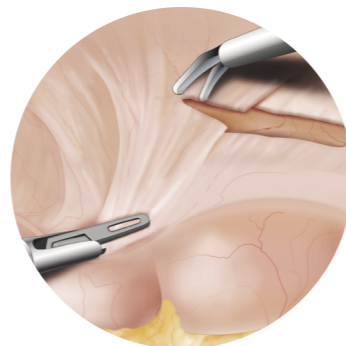
#### 2. Colon Release to Liberate Anterior Aspect of Kidney and Ureter



- Improved orientation and dissection with continuous vertical orientation of the view.



- Sense of depth dramatically decreases likelihood of causing injury.



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#### 3. Identification of the Gonadal Vein and Ureter



- Easier ureter identification due to ability to see rear aspects of any structure without mobilizing it.

#### 4. Lower Pole Lift



- Identification of vascular structures thanks to depth perception.

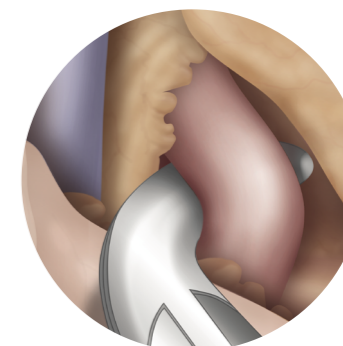
#### 5. Identification, Dissection and Section of the Vascular Pedicle



- ENDOEYE FLEX 3D enables the posterior aspect of the vascular pedicle to be easily checked in addition to the whole perimeter of a vessel before clipping it.



- Small vessels can be detected more easily, leading to a decreased risk of hemorrhage.
- The device facilitates delicate and precise movements, allowing the artery



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# Radical Nephrectomy

## Procedure Steps

### Advantages of 3D Imaging

The **visual performance** of 3D imaging enables the surgeon to profit from the unbeatable depth perception. This sense of depth leads to better spatial orientation as well as greater speed and enhanced hand-to-eye coordination.

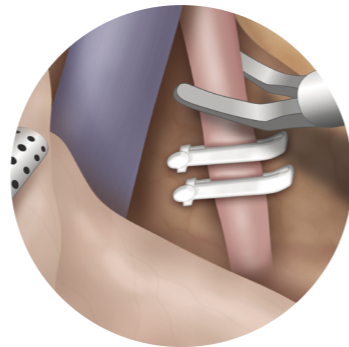
#### 6. Dissection of Multiple Vessels (Gonadal Vein, Adrenal Vein and Posterior Lumbar Vein)



- Flexible tip permits optimal visualization of superior aspect of the vein to ligate the adrenal vein comfortably.
- Better orientation for dissection.



- Precise view of anatomy to avoid injuries.
- Sense of depth for optimal visualization of all branches, so each one can be dealt with independently.



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#### 7. Kidney Liberation



- ENDOEYE FLEX 3D enables visibility of the posterior aspect of the kidney without changing the vertical orientation of the

#### 8. Kidney Extraction and Closure



- A zenithal view supports the proper inclusion of the specimen into the bag.

# Radical Nephrectomy

## ENDOEYE FLEX 3D – Deflectable Videoscope in HD 3D

### Joystick Handle

- Intuitive and smooth angulation.
- Ergonomic design enables stable and customized handling with both hands or one hand.

### Shortened Tip Length

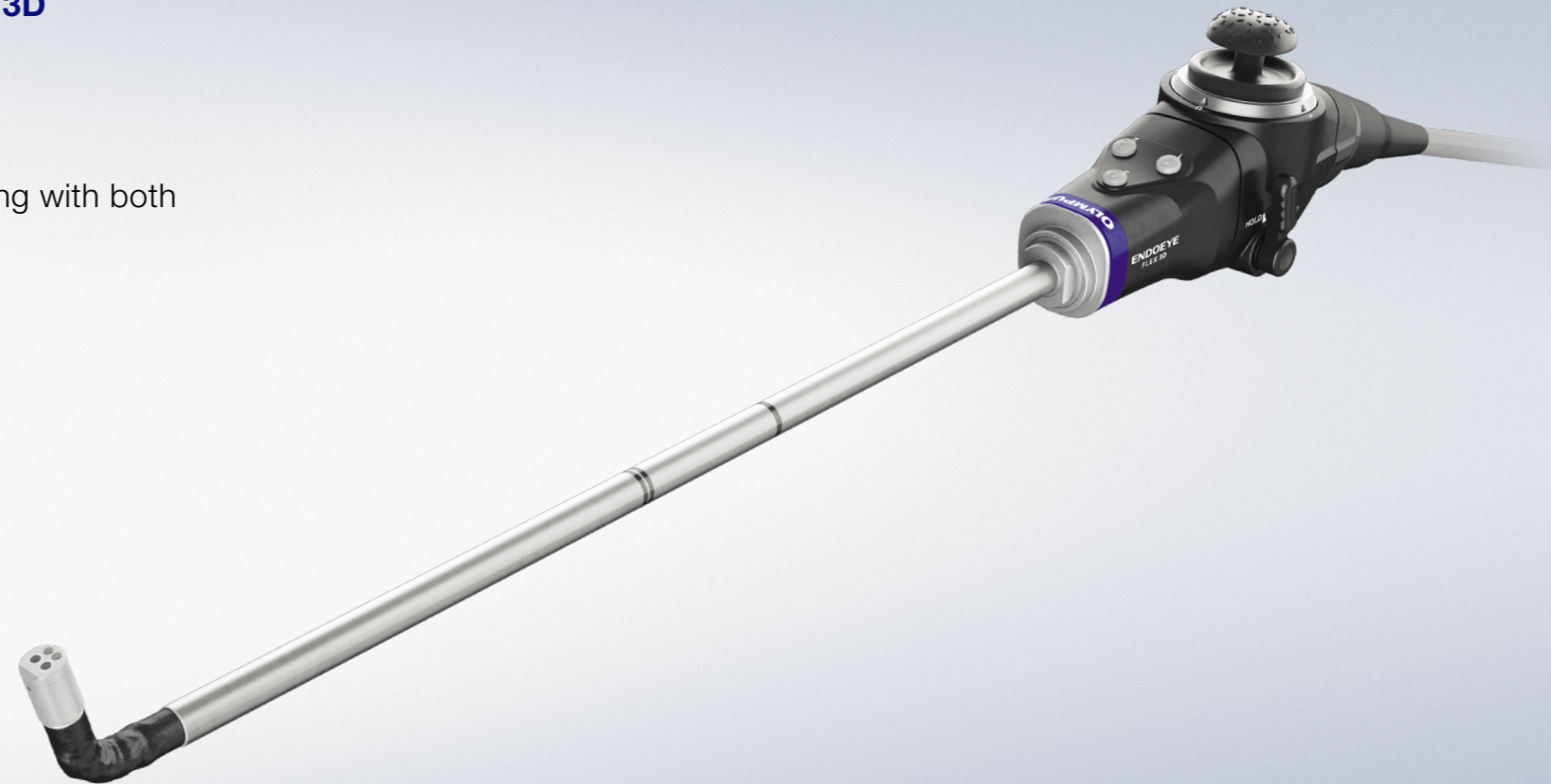
- Better approachability inside narrow cavities.

### New Hold-Lever Design

- Comfortable and smooth handling.

### Focus-Free

- Greater depth of field.
- The need for manual focusing is eliminated.



## References

- <sup>1</sup> Allah J.D.D. et al. Laparoscopic Radical Nephrectomy. Eur Urol 2001;40:17-23
- <sup>2</sup> ENDOEYE FLEX 3D (LTF-S300-10-3D Articlenuer: N5781330)

Any user of this product must at all times observe all mandatory information for the product, found, in particular, on the labels and the instructions for use. As medical knowledge is constantly growing, technical modifications or changes of the product design, product specifications, accessories and service offerings may be required.

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