

ENDOSCOPIC GYNECOLOGY

INGENIOUS

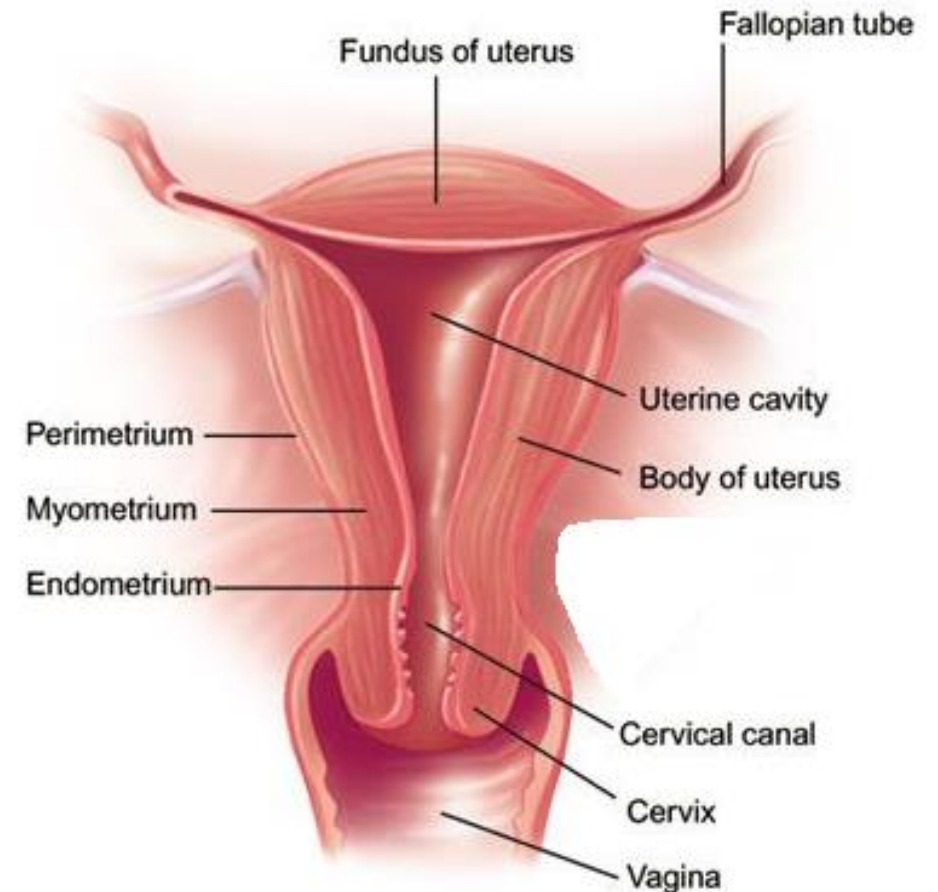
1. ANATOMICAL REVIEW
2. COMMON GYNECOLOGICAL PROCEDURES
3. HYSTEROSCOPY OVERVIEW
4. DIAGNOSTIC HYSTEROSCOPY
5. OPERATIVE HYSTEROSCOPY
6. HYSTEROSCOPY PROCEDURE
7. RESECTOSCOPY
8. HYSTERCTOMY
9. RECOMMENDED ENDOSCOPIC EQUIPMENT

## FORMED BY THREE LAYERS:

1. **PERIMETRIUM:** outer layer, composed by thin tissues which envelopes the uterus.
2. **MYOMETRIUM:** Mid layer, composed of thick muscles. Makes up most of the uterine volume
3. **ENDOMETRIUM:** Inner layer, essential for menstrual & reproductive function

## FUNCTION OF THE UTERUS:

- Menstruation
- Pregnancy: Uterus support fetus to grow
- Labor and Birth: Uterine muscles contract to expel the fetus



## 2. COMMON GYNECOLOGICAL PROCEDURES

Usage of laparoscope to guide the removal of the uterus

**LAPAROSCOPIC  
ASSISTED VAGINAL  
HYSTERECTOMY**

Removing fibroids or myomas from the uterus

**HYSTEROSCOPIC  
MYMECTOMY**

Removing uterine polyps

**HYSTEROSCOPIC  
POLYPECTOMY**

Treatment of abnormal uterine bleeding

**HYSTEROSCOPIC  
ENDOMETRIAL  
ABLATION**

Treating heavy bleed due to miscarriage or abortion

**D&C (DILATATION &  
CURETTAGE)**

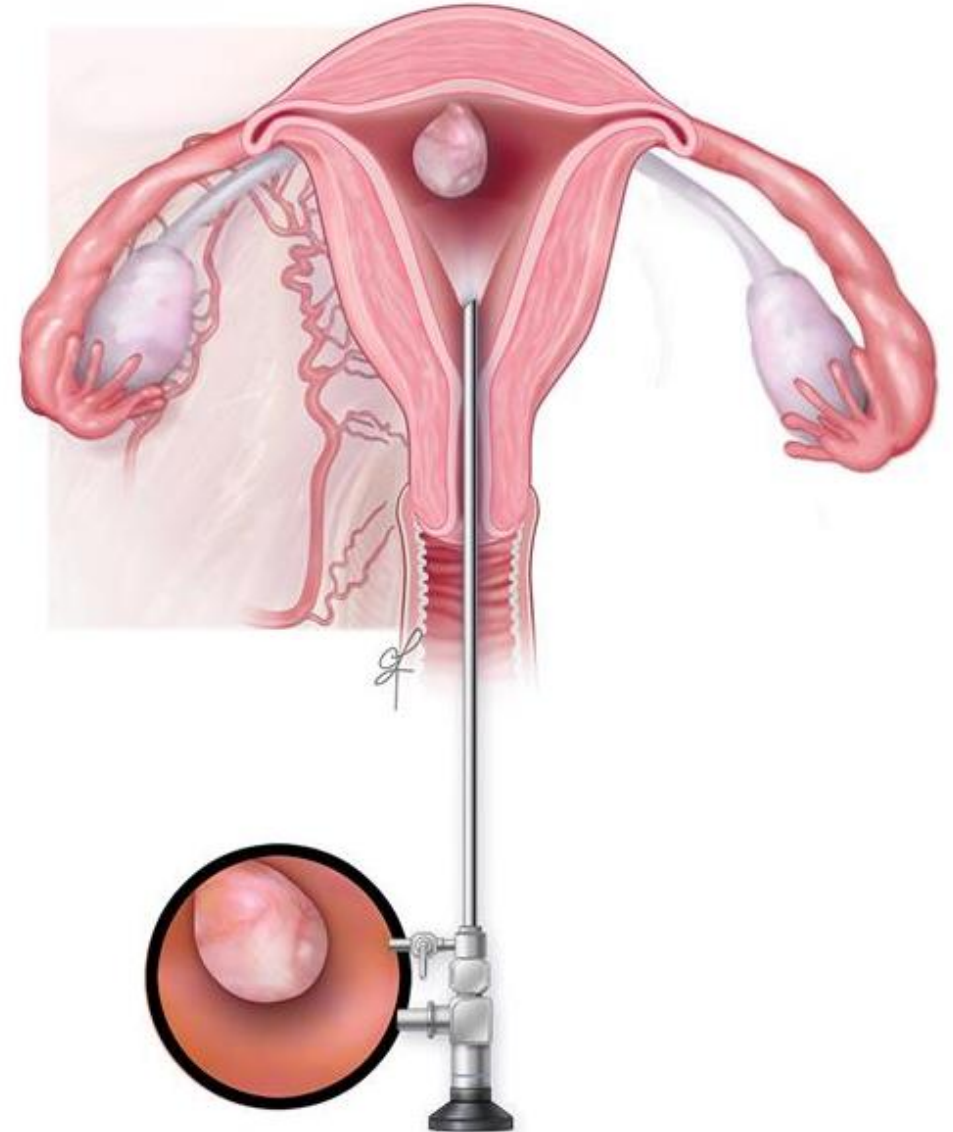
Place a small implants in the fallopian tubes

**HYSTEROSCOPIC  
STERILIZATION**

- It is a technique which allows viewing and surgical maneuvers to be performed in the uterine cavity.
- It has many advantages that made it wide spread and fundamental diagnostic method in daily gynecological practice.

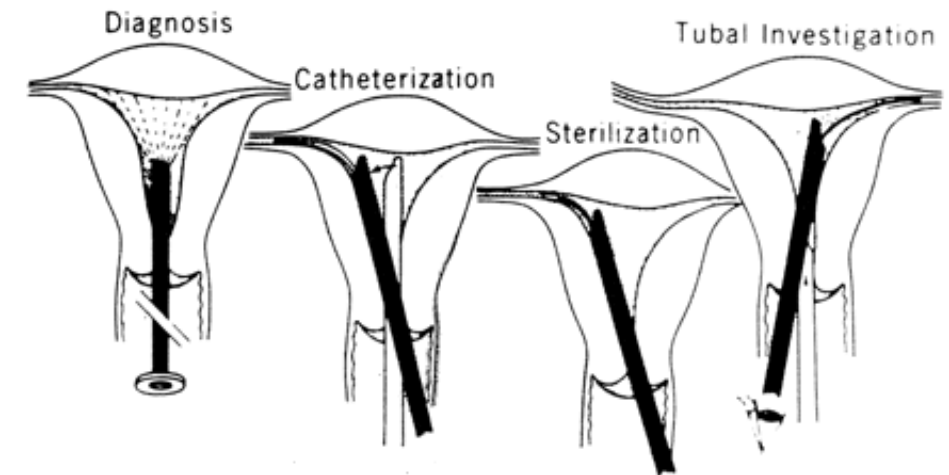
Two types of hysteroscopy procedures:

- A. **DIAGNOSTIC HYSTEROSCOPY**
- B. **OPERATIVE / THERAPEUTIC HYSTEROSCOPY**

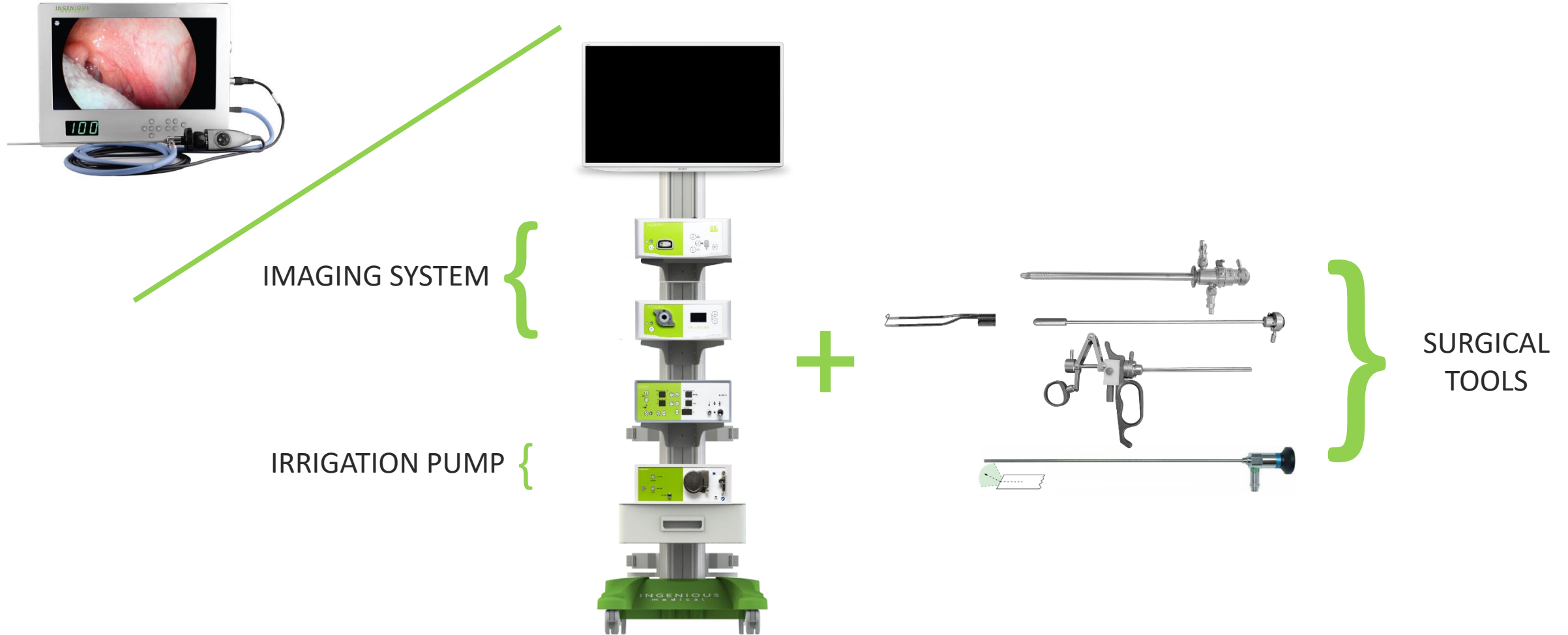


# DIAGNOSTIC HYSTEROSCOPY

- Clarification of a typical uterine bleeding
- Intra-uterine staging of endometrial cancer (clarification of the tumor stage)
- Tubal Investigation
- Follow-up after endometrial hyperplasia (removal of large endometrium)
- Sterility diagnosis (infertility)
- Infertility diagnostic (inability to become pregnant to unsubscribe viable baby)



# 4. DIAGNOSTIC HYSTEROSCOPY – SURGICAL TOOLS



Diagnostic shaft with one channel for gas flow



Diagnostic shaft with two channels for continuous flow



Obturator



Ø4 / Ø2.9 mm, Telescope  
(0°, 12°, 30°, 45°, 70°)

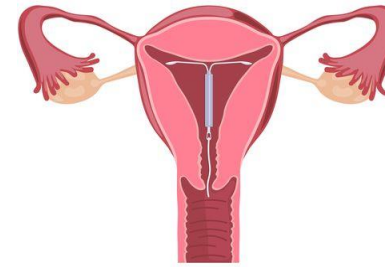


Systems for Ø2.9 mm Telescopes are used in standard hysteroscopy providing a good view with small diameters.

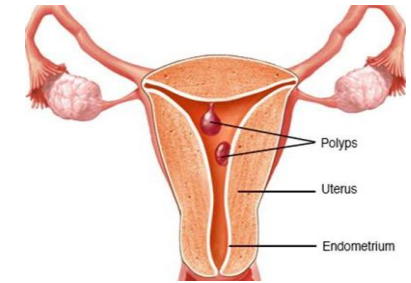
# OPERATIVE HYSTEROSCOPY

- Extraction of "lost IUD" (intrauterine device: Spiral).
- Resection of functional septa, fibroids and polyps in infertility and sterility.
- Separation of adhesions in Asherman's syndrome (adhesions in the uterus).
- Resection of myomas and polyps in bleeding disorders.
- Endometrial ablation (removal or coagulation of the endometrium by resectoscope or laser).

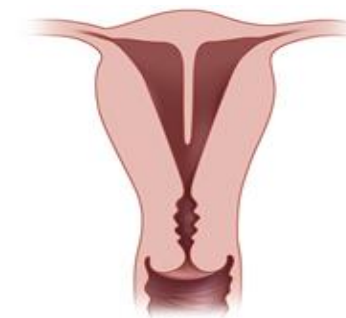
INTRAUTERINE DEVICE



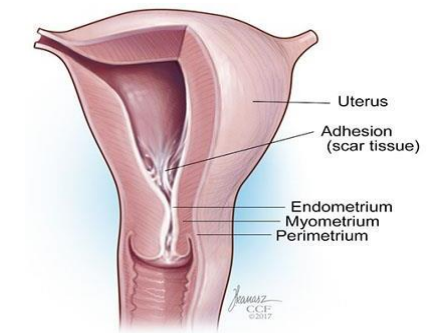
POLYPS



SEPTATE UTERUS



ASHERMAN'S SYNDROME



# 5. OPERATIVE HYSTEROSCOPY – SURGICAL TOOLS

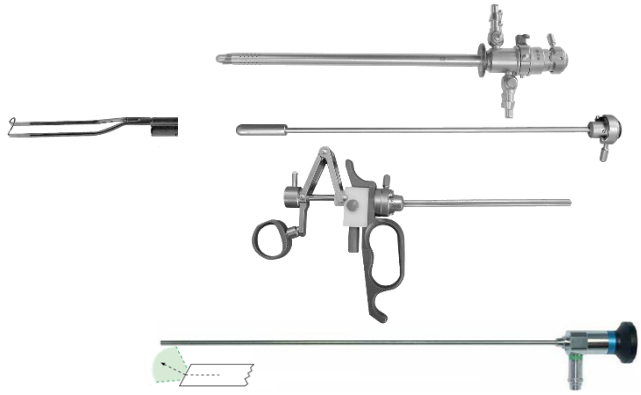


IMAGING SYSTEM

IRRIGATION PUMP



+



SURGICAL TOOLS

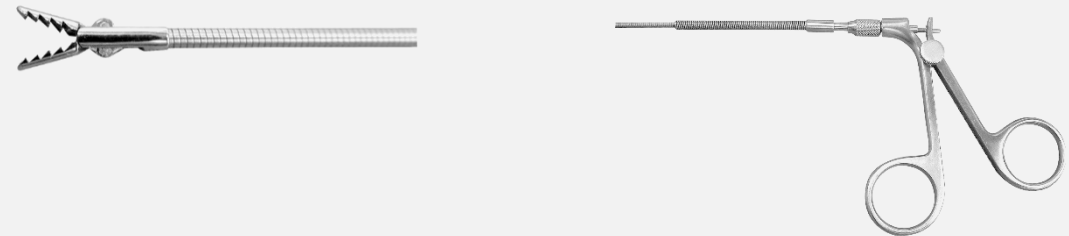
Contineous flow operative sheath *DROP STYLE*



Contineuyous flow operative sheath



Semi- rigid Instruments



Ø4 / Ø2.9 mm,  
Telescope (0°,12°, 30°, 45°, 70°)



# HYSTEROSCOPY PROCEDURE

### POSITION :

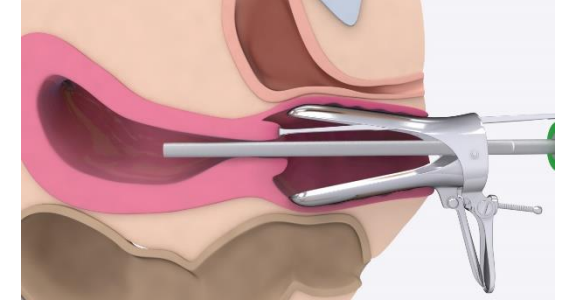
Lithotomy position

### ANESTHESIA :

General anesthesia

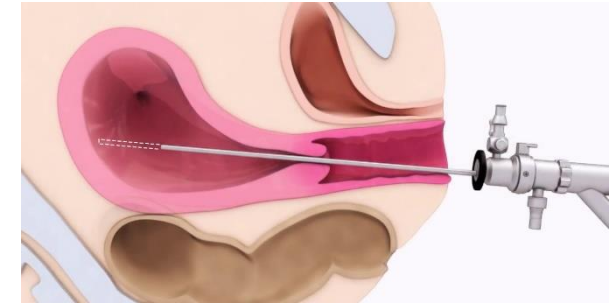


**1** The light guide cable is screwed into the telescope.  
(The light guide fibers will transmit the light to the tip of the endoscope).



**2** The Bridge is connected to the Sheath. (In case of operative hysteroscopy).

**3** The telescope is introduced in the sheath to complete the system.



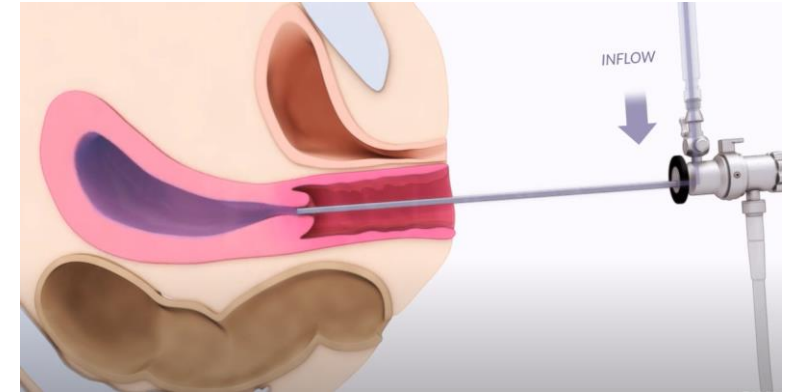
**4** Using the Stop-Cock the in and out flow can be regulated.

**5** The cervix is dilated with a vaginal retractor to allow the insertion of the hysteroscope

6 The hysteroscope is inserted through the vagina and cervix into the uterus.

7 Liquid is inserted into the uterus through the hysteroscope to expand it and to clear away any mucus or blood.

8 Examination of the uterine cavity and fallopian tubes in order to put a diagnostic exam.



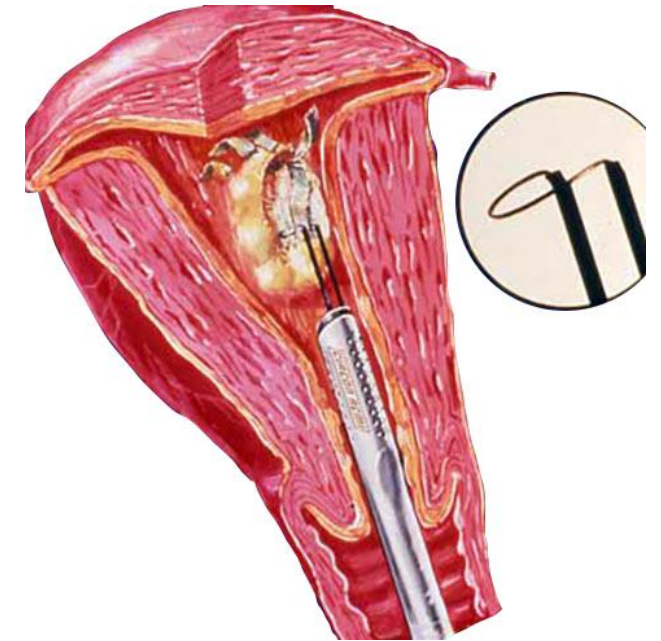
Hysteroscopy can be used with other procedures, such as laparoscopy, or before procedures such as dilation and curettage (D&C).

# RESECTOSCOPY

- Procedure done in the uterine cavity used for the resection of tissue

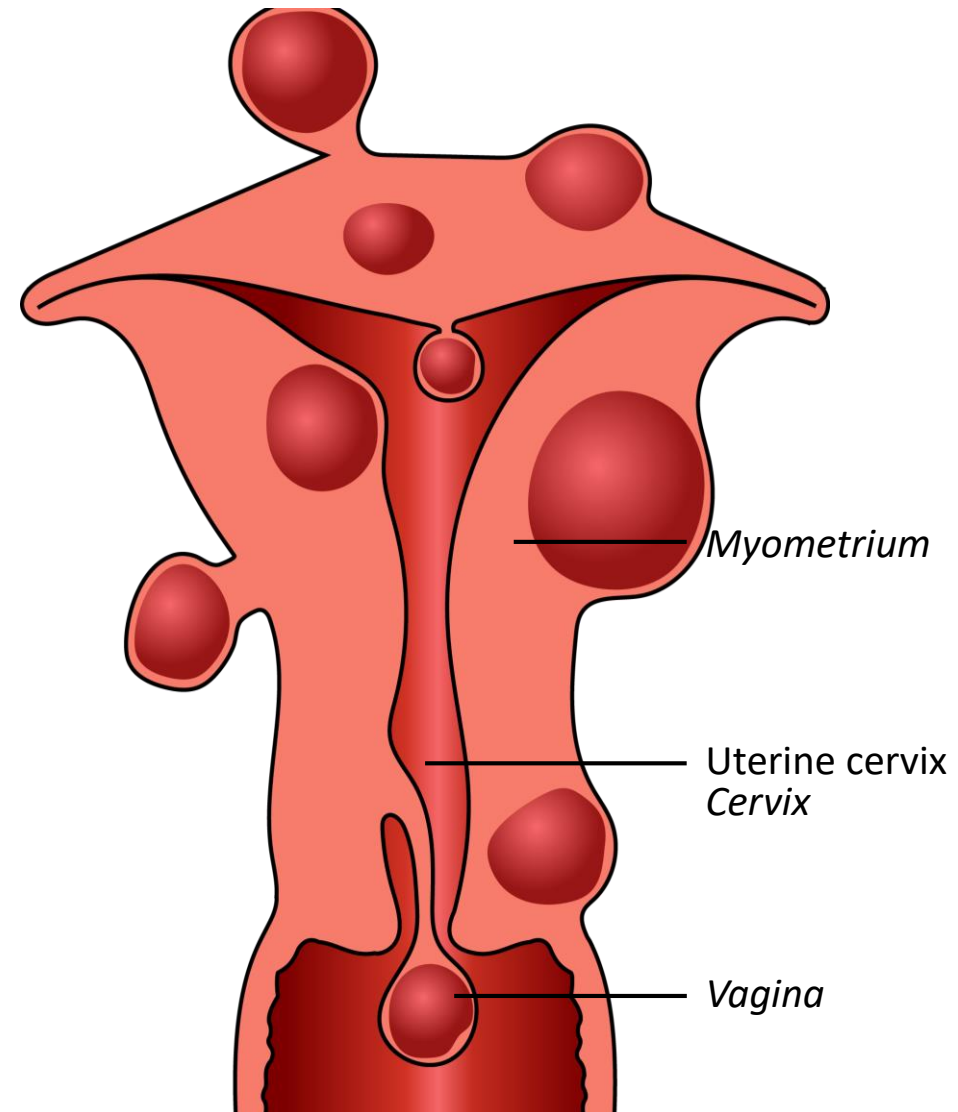
### SOME PROCEDURES VIA RESECTOSCOPY IN HYSTEROSCOPY

- Ablation of the Endometrium (Trans Cervical Resection)
- Uterine Fibroids (myomectomy)
- Removal of polyps (Polypectomy)



### CAUSES

- Hormonal – formation only in child-bearing age
- Heredity
- Nine-fold higher prevalence in African women

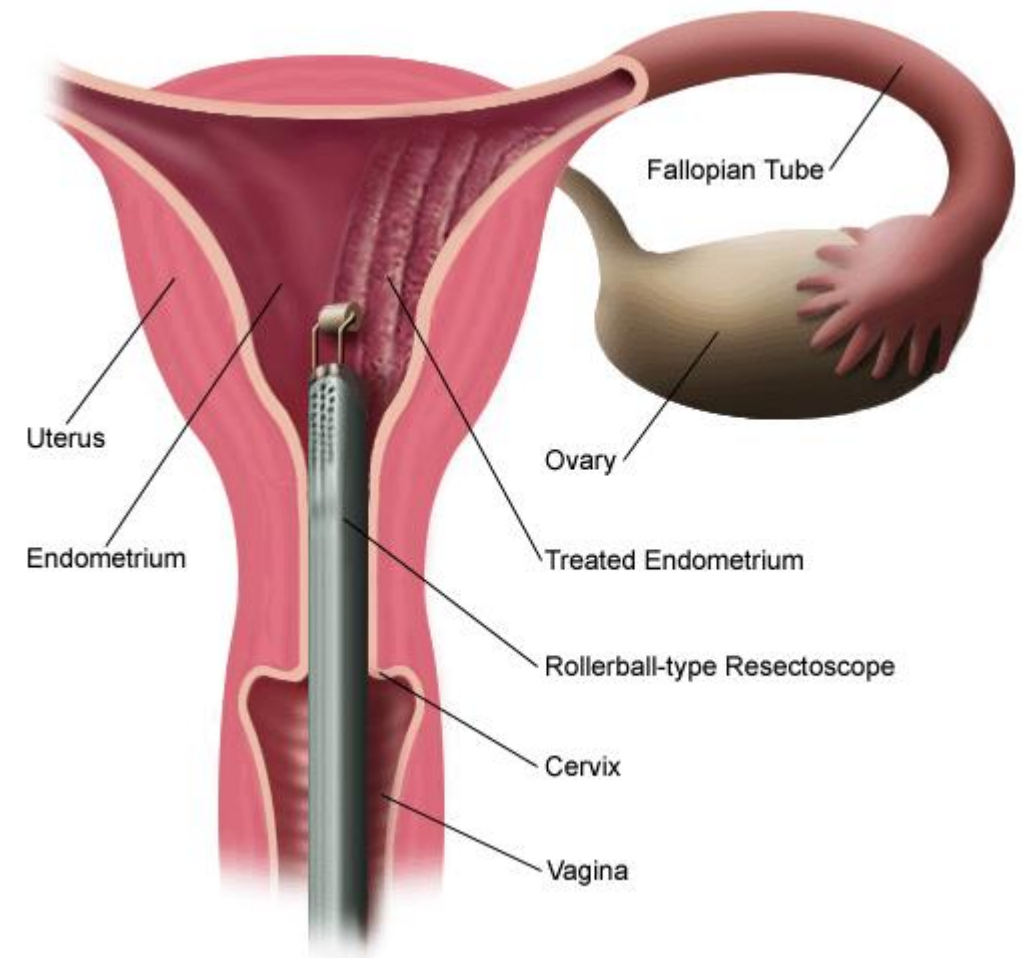


### DEFINITION:

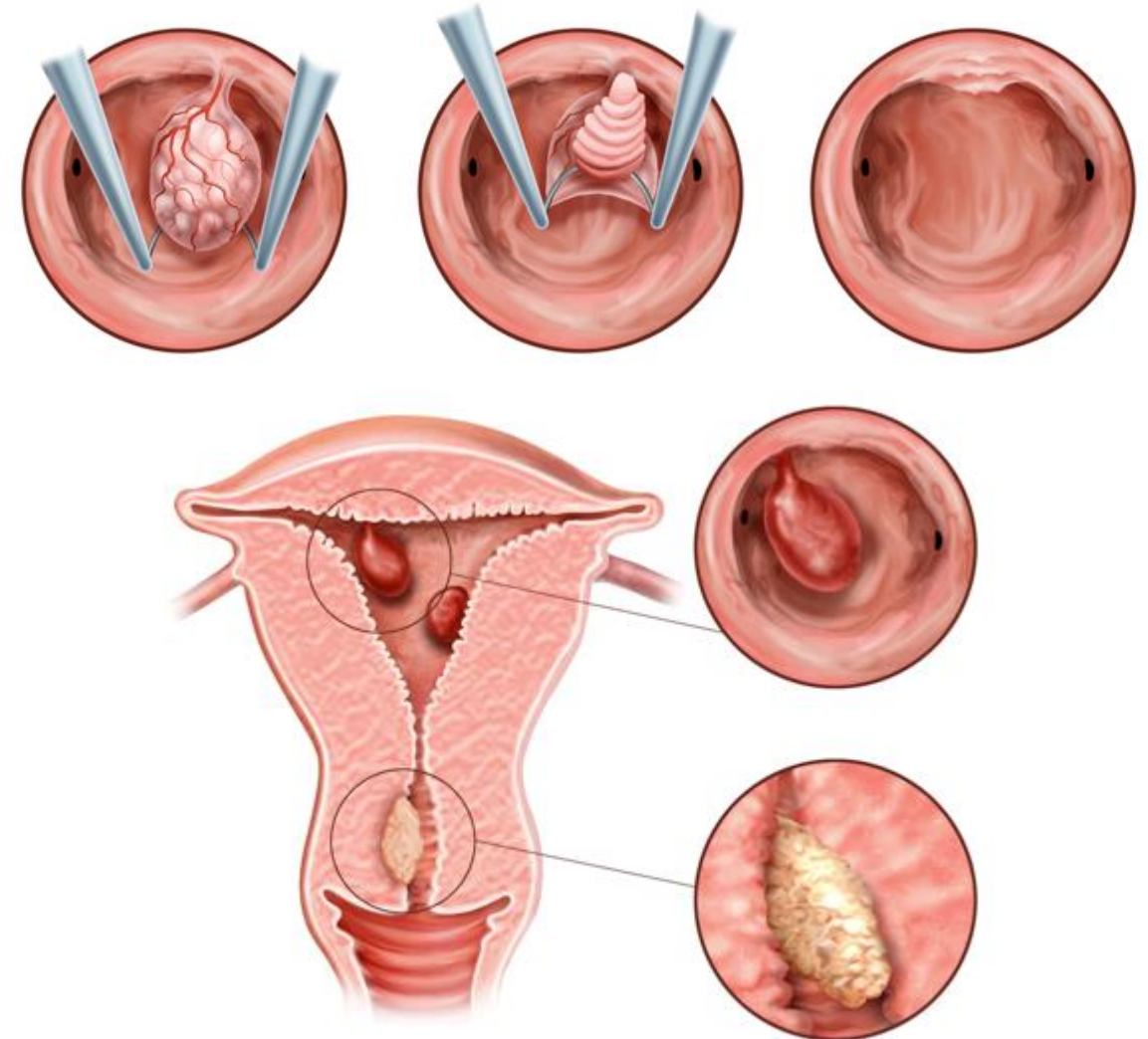
Endometrial ablation, or destruction of the lining of the uterus.

### CAUSES :

- Heavy menstrual bleeding(menorrhagia).
- Alternative to [hysterectomy](#) for the treatment of menorrhagia in women who wish to keep their uterus or avoid major surgery.



- Endometrial polyps are one of the most common causes of abnormal vaginal bleeding in both premenopausal and postmenopausal women.
- The endometrium forms an overgrowth (tumor) of cells it forms a finger-like projection called an endometrial polyp.
- Potential for polyps to contain malignant or pre-malignant cells they should be removed and sent for analysis.



18.5 Fr. sheath, continuous flow,  
continuous flow **with** rotating inner tube



Standard and visual obturator



Active / Passive Working Element

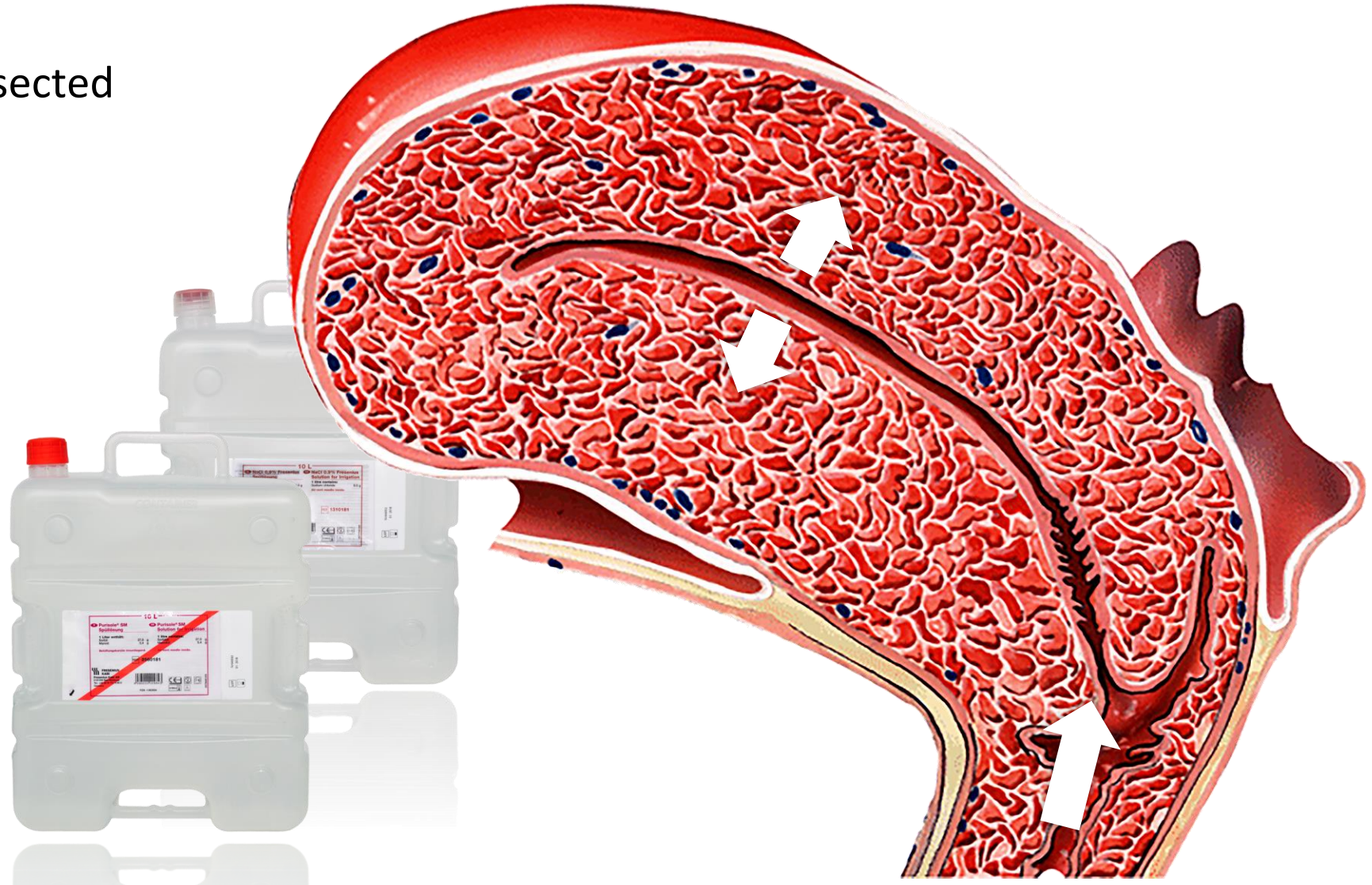


Ø2.9 mm,  
Telescope 30°



## CONTINUOUS IRRIGATION

- Filling of the uterus
- Flushing-out of the resected tissue and the blood







BIPOLAR

SUGAR-ALCOHOL SOLUTIONS ARE NON-CONDUCTING!

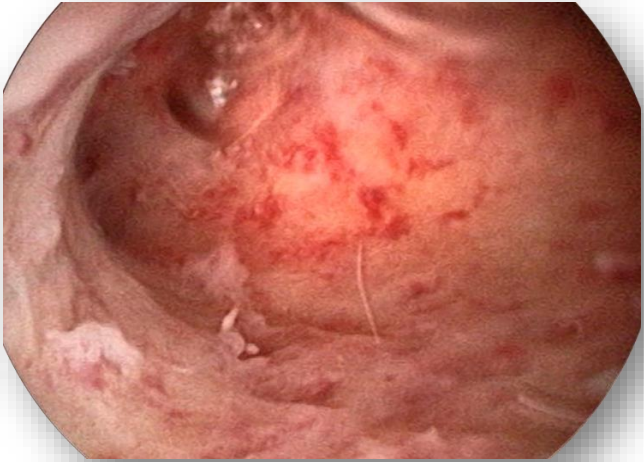




### COMPLICATIONS RELATED TO DISTENTION MEDIA DUE TO FLUID / LMW (SALINE)

- Fluid overload: prevented by keeping the operating time to minimum
- Avoid entering vascular channels
- Close monitoring of fluid balance
- If you exceed 1000 ml of infused fluid stop the procedure

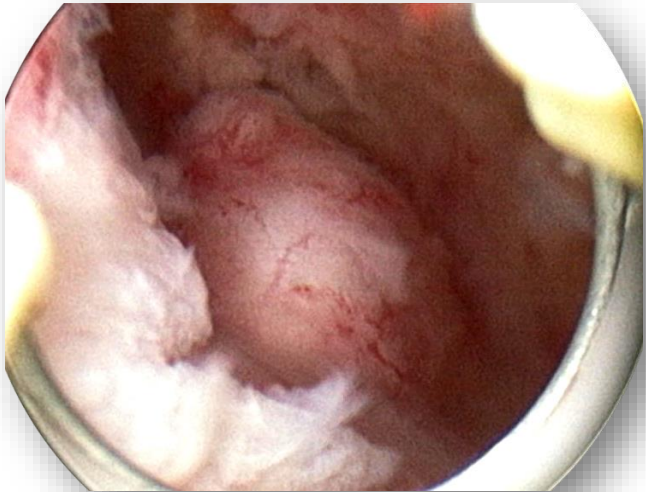
UTERINE CAVITY  
CAVUM



RIGHT *OSTIUM*  
(MOUTH OF  
FALLOPIAN TUBE)



UTERINE  
MYOMA

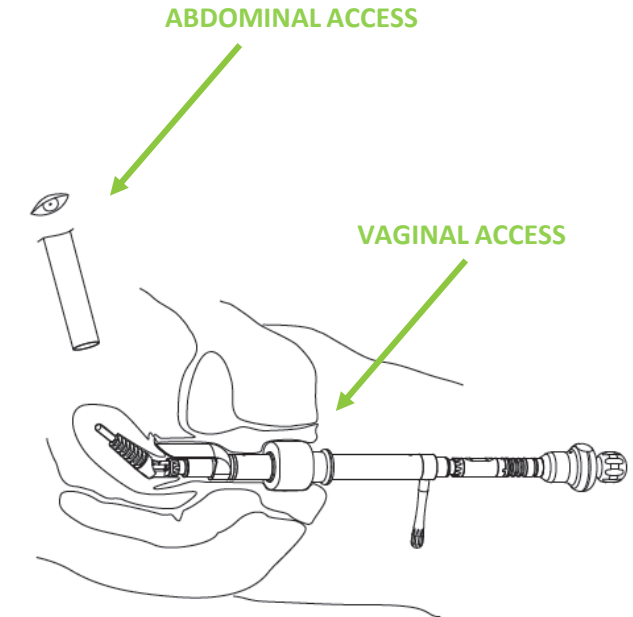


LEFT *OSTIUM*  
(MOUTH OF  
FALLOPIAN TUBE)



**HYSTERCTOMY**

- During hysterectomy the surgeon uses 2 access points (Abdominal – Trocars & Endo Vaginal – Uterus Manipulator)
- Cervix and Uterus are surgically removed by operating through the vagina.
- A Uterus Manipulators is used to assist the uterus out of the body through the vagina.



## 8. HYSTERECTOMY – TYPES OF UTERUS MANIPULATORS



ADJUSTABLE ONE HANDLE UTERINE MANIPULATOR



CUP UTERINE MANIPULATOR



CURVED UTERINE MANIPULATOR WITH DISTRACTION

**HYSTERCTOMY**

# 9. CONFIGURATION GYN HYSTEROSCOPY – 4K

MEDICAL  
MONITOR



31" 4K MONITOR

CCU  
CHU



SPECTRA 4K Vision CCU



4K CHU

LIGHT  
SOURCE

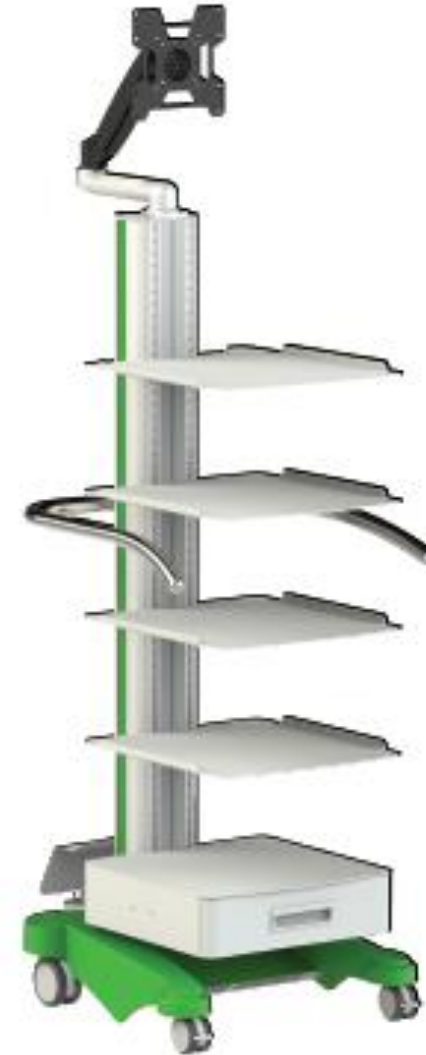


SPECTRA LED 300

PUMP



SPECTRA IRRIGATION



OR TROLLEY

# 9. CONFIGURATION GYN HYSTEROSCOPY – FULL HD

MEDICAL  
MONITOR



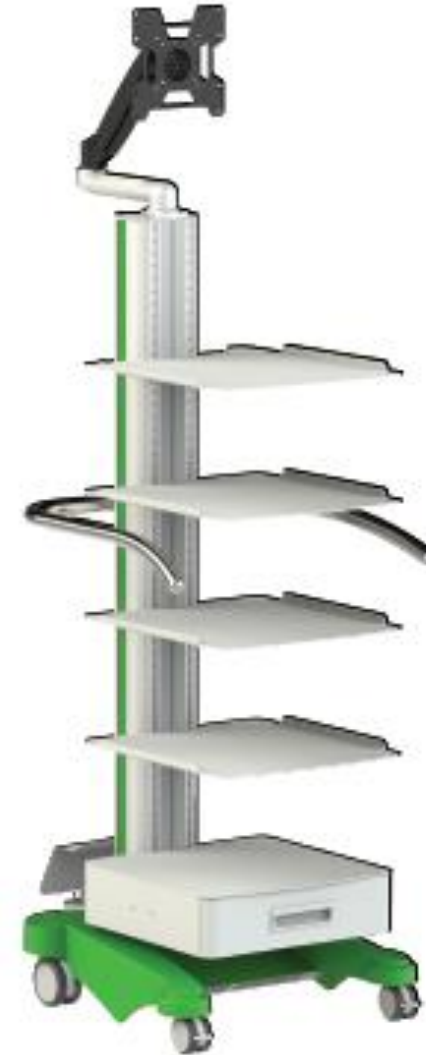
CCU  
CHU



LIGHT  
SOURCE



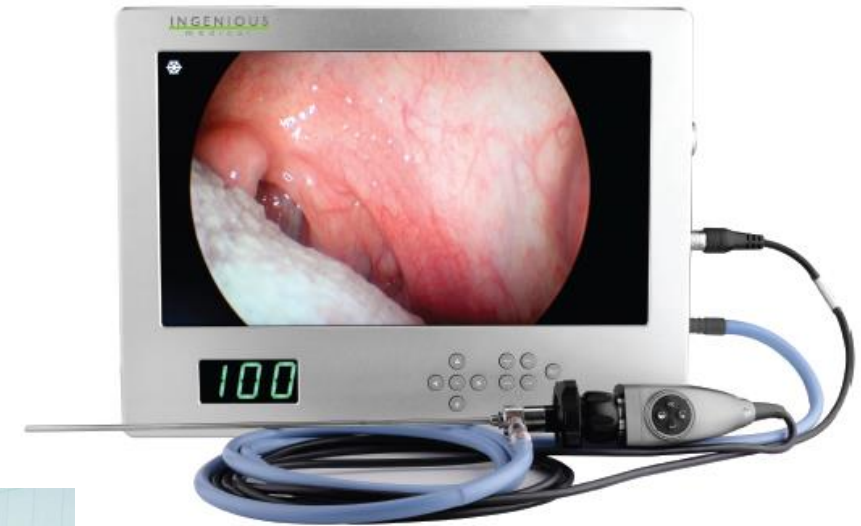
PUMP



**URSEA VISION** is a 5 in 1 integrated visualization platform containing 24” high definition medical grade monitor, full HD camera control unit, 1CMOS camera head unit, LED light source and high end video recorder. **URSEA VISION** is commonly used for **OFFICE HYSTEROSCOPY**

### URSAE VISION offers:

1. FULL HD 1 Chip CMOS Camera System
2. Build in LED light source
3. USB port for photo and video capturing
4. Portable System
5. Compact 24” medical grade monitor
6. Image Enhancement
7. Network Integration





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THANK YOU

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