vNOTES FACT SHEET

vNOTES (vaginal natural orifice transluminal endoscopic surgery) is an advanced minimally invasive gynecologic procedure using the vagina as a surgical access route. The vNOTES technique is most commonly used for hysterectomy procedures, as well as salpingectomy, oophorectomy, and cystectomy procedures.

- What is vNOTES?
  - vNOTES is the next advancement in minimally invasive gynecologic surgery.
  - vNOTES is performed by using the vagina as a surgical access route for the procedure, leaving the patient with no visible scarring.

- Patient Benefits
  vNOTES has been shown to provide the following benefits compared to the laparoscopic approach:1
  - Shorter hospital stay
  - Less postoperative pain
  - No visible scars
  - Faster recovery time

- vNOTES procedures
  - Hysterectomy
  - Salpingectomy
  - Oophorectomy
  - Salpingo-oophorectomy
  - Cystectomy

- Conditions Treated by vNOTES
  - A vNOTES hysterectomy can treat the following conditions:
    - Abnormal uterine bleeding
    - Chronic pelvic pain
    - Fibroids
    - Prolapse of the uterus
  - vNOTES adnexal surgery can be indicated for the following:
    - Adnexal mass
    - Sterilization
    - Prophylactic ovarian cancer prevention

- vNOTES Technique
  - vNOTES combines the benefits of the laparoscopic and vaginal approaches to gynecologic surgery using a vNOTES device known as the GelPOINT® V-Path transvaginal access platform.
  - vNOTES is performed by using the vagina as a surgical access route. The vNOTES device is placed through the vagina into the pelvic cavity, giving access to the uterus, fallopian tubes and ovaries.
  - The abdomen is inflated with carbon dioxide gas to give the surgeon the space needed to see and operate. vNOTES enables the surgeon to operate at a lower carbon dioxide gas pressure.2
    - Research has shown that operating at a lower pressure is associated with reduced postoperative pain.3
  - A high-definition camera and specialized instruments are inserted through the vNOTES device, allowing surgeons to operate with the utmost precision and visualization. Once the surgery is completed, the vNOTES device is removed and the gas is evacuated.

---

1 Baekelandt J. Hysterectomy by transvaginal natural orifice transluminal endoscopic surgery versus laparoscopy as a day-care procedure: a randomised controlled trial. BJOG. 2019 Jan;126(1):105-113
**SURGICAL SOCIETY RECOMMENDATIONS**
- The American College of Obstetricians and Gynecologists (ACOG) and the American Association of Gynecologic Laparoscopists (AAGL) have recommended vaginal hysterectomy, whenever feasible, as the approach of choice.\(^4\,5\)

**RESEARCH FINDINGS**
- The HALON study\(^6\) was conducted from December 2015 to June 2017. The study was a single-center, non-inferiority, randomized, controlled trial comparing vNOTES hysterectomy to laparoscopic hysterectomy as an outpatient procedure at the Department of Obstetrics and Gynecology, Imelda Hospital, in Bonheiden, Belgium.
- The results of the study demonstrated the following benefits to the vNOTES approach compared to the traditional laparoscopic approach:
  - Reduced operating time
  - Reduced pain
  - Reduced analgesics use
  - Reduced hospital stay
  - Improved recovery time
- The HALON study was published in January 2019 in *BJOG: An International Journal of Obstetrics and Gynaecology*.

**SURGERY STATISTICS**

*Hysterectomy*
- In the U.S., about 500,000 hysterectomies are performed each year.\(^7\,8\)
- The average age a woman receives a hysterectomy is 40-45 years old.

*Adnexal Surgery*
- vNOTES provides better access to the fallopian tubes and ovaries compared to vaginal surgery.\(^9\)
  - As recent data points to the fallopian tube as the origin of most high-grade serous ovarian cancers, removal of the fallopian tubes can significantly reduce the risk of ovarian cancer.\(^10\,11\)
  - Reports of successful adnexa removal by the traditional vaginal approach vary greatly, with failure rates ranging from 22 to 36%.\(^12\,13\)
  - Compared to the traditional vaginal approach, vNOTES may facilitate the successful removal of the fallopian tubes due to the benefits of improved access and visualization.

*For More Information:* (Add Contact Name, Email, Phone)

---


\(^6\) Baekelandt J. Hysterectomy by transvaginal natural orifice transluminal endoscopic surgery versus laparoscopy as a day-care procedure: a randomised controlled trial. *BJOG*. 2019 Jan;126(1):105-113

\(^7\) Cohen SL, Ajao MO, Clark NV, Vitonis AF, Einarsson JI. Outpatient hysterectomy volumes in the United States. *Obstet Gynecol*. 2017;130:130-7


\(^13\) Mothes AR, Schlachetzki A, Nicolaus K. et al. LAVH superior to TVH when concomitant salpingo-oophorectomy is intended in prolapse hysterectomy: a comparative cohort study. *Arch Gynecol Obstet*. 2018; 298: 1131–1137