Patient information: Vaginal hysterectomy (Beyond the Basics)

INTRODUCTION

Vaginal hysterectomy is a procedure in which the uterus is surgically removed through the vagina. One or both ovaries and fallopian tubes may be removed during the procedure as well; removal of both ovaries and fallopian tubes is called bilateral salpingo-oophorectomy (BSO) (figure 1). A vaginal approach may be used if the uterus is not greatly enlarged, and if the reason for the surgery is not related to cancer.

Studies have shown that vaginal hysterectomy has fewer complications, requires a shorter hospital stay, and allows a faster recovery compared to removal of the uterus through an abdominal incision (abdominal hysterectomy). (See "Patient information: Abdominal hysterectomy (Beyond the Basics)".)

FEMALE ANATOMY

A brief review of female reproductive anatomy may be of help in understanding hysterectomy (figure 2).

The uterus is a hollow, pear-shaped muscular organ located in the lower abdomen or pelvis. One end of each fallopian tube opens into the side of the uterus, at the upper end, and the other end of the fallopian tube lies next to an ovary. At its lower end, the uterus narrows and opens into the vagina. The lower end of the uterus is called the cervix. The ovaries lie next to and slightly behind the uterus.

REASONS FOR VAGINAL HYSTERECTOMY

A hysterectomy may be advised for a number of conditions. For some of these conditions, there may be alternatives to hysterectomy, which are described below. (See 'Alternatives to hysterectomy' below.)

Abnormal uterine bleeding — Excessive uterine bleeding, called menorrhagia, can lead to anemia (low blood iron count), fatigue, and contribute to missed days at work or school. Menorrhagia is generally defined as bleeding that lasts longer than seven days or saturates more than one pad per hour for several hours. (See "Patient information: Anemia caused by low iron (Beyond the Basics)".)

Irregular uterine bleeding, called metrorrhagia, can also occur in women with menorrhagia. Metrorrhagia is defined as bleeding or spotting that occurs at times other than during the expected menstrual period.

Menorrhagia and metrorrhagia are generally treated first with medication or other surgical alternatives to hysterectomy. (See "Patient information: Menorrhagia (excessive menstrual bleeding) (Beyond the Basics)".) However, abnormal uterine bleeding that does not improve with conservative treatments may require hysterectomy.

Fibroids — Fibroids (also known as leiomyoma) are noncancerous growths of uterine muscle. Fibroids may become larger during pregnancy, and typically shrink after menopause. They may cause excessive and irregular uterine bleeding. (See "Patient information: Uterine fibroids (Beyond the Basics)".)

Pelvic organ prolapse — Pelvic organ prolapse occurs due to stretching and weakening of the pelvic muscles and ligaments. This allows the uterus to fall (or prolapse) into the vagina. It is usually related to pregnancy, vaginal childbirth, genetic factors, chronic constipation, or lifestyle factors (repeated heavy lifting over the lifetime).

Cervical abnormalities — Precancer or carcinoma in situ (CIN 3) of the cervix that does not resolve after other procedures (such as cone biopsy, laser or cryosurgery) may require hysterectomy. (See "Patient information: Follow-up of low-grade abnormal Pap tests (Beyond the Basics)" and "Patient information: Follow-up of high-grade abnormal Pap tests (Beyond the Basics)".)

Endometrial hyperplasia — Endometrial hyperplasia is the term used to describe excessive growth of the endometrium (the tissue that lines the uterus). It can sometimes lead to endometrial cancer. Although endometrial hyperplasia can often be treated with medication, a hysterectomy is sometimes needed or preferred to medical therapy.

Chronic pelvic pain — Chronic pelvic pain can be due to the effects of endometriosis or scarring (adhesions) in the pelvis and between pelvic organs. However, pelvic pain can also be caused by other sources, including the gastrointestinal and urinary systems. (See "Patient information: Chronic pelvic pain in women (Beyond the Basics)".) It is important for a woman with pelvic pain to ask about the probability that her pain will improve after hysterectomy.

PRE-OPERATIVE PLANNING AND EVALUATION

Before surgery, there are two main decisions that need to be made: whether the ovaries should be removed, and whether estrogen replacement therapy is needed.

Removal of ovaries — A hysterectomy does not involve removing the ovaries, but they may be removed at the same time as hysterectomy; this procedure is known as oophorectomy. The decision to remove the ovaries depends upon several considerations. Occasionally, it may not be possible to remove the ovaries due to scar tissue or other factors that increase the risk of removal.

Premenopausal women may decide to keep the ovaries to provide a continued, natural source of hormones, including estrogen, progesterone, and testosterone. These hormones are important in maintaining sexual interest and preventing hot flashes and loss of bone density loss. On the other hand, women who have menstrual cycle-related migraines, epilepsy, or severe premenstrual syndrome may have an improvement in symptoms when hormone levels are reduced by removal of the ovaries. Individuals should discuss the risks and preferences with a doctor before surgery.

Postmenopausal women are usually advised to have their ovaries removed because of a small risk of developing ovarian cancer at some point during their lifetime. This benefit of removing the ovaries appears to outweigh the benefit of continued hormone production, as described above.

Estrogen therapy — Estrogen therapy (ET) may be recommended after surgery for women who had their ovaries removed. Women who have not reached menopause may use ET to avoid hot flashes, night sweats, and loss of bone density, which may occur when the ovaries are surgically removed. Women who plan to use ET should talk with their clinician about the risks and benefits, and about how long to use this treatment.

In younger women who retain their ovaries, ET may be needed at a later date if the ovaries stop functioning earlier than expected.

Women who have completed menopause generally do not require ET after hysterectomy. (See "Patient information: Postmenopausal hormone therapy (Beyond the Basics)".)

Pre-operative testing — Standard pre-operative testing may include a physical examination, EKG, chest x-ray, and blood testing, depending upon age and other medical conditions.

VAGINAL HYSTERECTOMY PROCEDURE

Vaginal hysterectomy is performed in a hospital setting, and generally requires one to two hours in the operating room. Patients are given general or spinal anesthesia plus sedation so that they feel no pain. Heart rate, blood pressure, blood loss, and respiration are closely observed throughout the procedure. After surgery, patients are transferred to the recovery room (also known as the post-anesthesia care unit) so that they can be monitored while waking up. Most patients will then be transferred to a hospital room and will stay one to two days.

LAPAROSCOPICALLY ASSISTED VAGINAL HYSTERECTOMY (LAVH)

Laparoscopically assisted vaginal hysterectomy (LAVH) is done by some surgeons to assist with the vaginal hysterectomy procedure. A laparoscope is a surgical instrument inserted through a small incision in the abdomen and pelvis. Using the scope, the surgeon can more easily see the uterus, ovaries, and the tissues that surround these organs within the pelvis (figure 3).

In addition, instruments may be used, along with the laparoscope, to facilitate the removal of the uterus through the vagina. LAVH might be recommended for a woman with an enlarged uterus, history of prior pelvic surgery, endometriosis, or other factors that could complicate a traditional vaginal hysterectomy. Women generally recover faster after a vaginal hysterectomy or LAVH, as compared to women who have abdominal hysterectomy.

However, not all surgeons use laparoscopy since additional training, experience, and equipment is necessary. Patients should talk to their surgeon regarding the best procedure for their individual situation.

NEED FOR ABDOMINAL HYSTERECTOMY

After surgery has begun, the surgeon may find conditions, such as extensive scar tissue, that require him or her to make an abdominal incision to remove the uterus. Sometimes these conditions are not apparent before surgery.

VAGINAL HYSTERECTOMY COMPLICATIONS

A number of complications can occur as a result of hysterectomy. Fortunately, most can be easily managed and do not cause long-term problems.

Hemorrhage — Excessive bleeding (hemorrhage) occurs in a small number of cases. Excessive bleeding may require a blood transfusion and/or a return to the operating room to find and stop it.

Infection — Low-grade fever is common after hysterectomy, is not always caused by infection, and usually resolves without treatment. However, a high or persistent fever may signal an infection. Serious infection occurs in less than five percent of women, and can usually be treated with intravenous antibiotics. Much less commonly, patients require another surgical procedure.

Constipation — Constipation occurs in most women following hysterectomy, and can usually be controlled with a regimen of stool softeners, dietary fiber, and laxatives.

Urinary retention — Urinary retention, or the inability to pass urine, can occur after vaginal hysterectomy. Urine can be drained using a catheter until retention resolves, usually within 24 to 48 hours.

Blood clots — Pelvic surgery increases the risk of developing blood clots in the large veins of the leg or lung. The risk is increased for approximately six weeks after surgery. Medications may be given to some women to prevent blood clots. In addition, women taking oral contraceptives or

hormone replacement should ideally discontinue them one month prior to surgery since they can further increase the risk of blood clots. Women who are sexually active and premenopausal should use alternative methods of birth control (e.g. condoms) to prevent pregnancy before surgery. (See "Patient information: Deep vein thrombosis (DVT) (Beyond the Basics)".)

Damage to adjacent organs — The urinary bladder, ureters (small tubes leading from the kidneys to the bladder), and large and small intestines are located in the lower abdomen and pelvis and can be injured during hysterectomy. Bladder injury occurs one to two percent of women who have vaginal hysterectomy, while bowel injury occurs in less than one percent of women. Injury can usually be detected and corrected at the time of surgery. If detected after surgery, another operation may be needed.

Early menopause — Women who have undergone hysterectomy may experience menopause earlier than the average age of menopause (age 51). This may be due to an interruption in blood flow to the ovaries as a result of removing the uterus.

RECOVERY AFTER VAGINAL HYSTERECTOMY

Fluids and food are generally offered soon after surgery. Intravenous (IV) fluids may be administered during the first day, particularly if there is nausea or vomiting. Pain medicine is given as needed, either intravenously, or by intramuscular (IM) injection or pill. Patients are encouraged to resume their normal daily activities as soon as possible. Being active is particularly important since it helps to prevent complications, such as blood clots, pneumonia, and gas pains.

More information about recovery from hysterectomy is available separately. (See "Patient information: Care after gynecologic surgery (Beyond the Basics)".)

LIFE AFTER VAGINAL HYSTERECTOMY

Studies of women's response to hysterectomy show that most women are very satisfied with their results (table 1). Most reported improvement in symptoms directly related to the uterus, including pain and vaginal bleeding.

Sexual function and enjoyment, interest in sex, and pain with sex were improved for most women. However, this improvement may be dependent upon several factors, including the age of a woman at the time of surgery, the reason for surgery, and history of any prior difficulties with mood. Younger women may grieve after hysterectomy due to their loss of fertility. A woman who has new feelings of sadness, anxiety, or depression after surgery should speak with her healthcare provider. These feelings may be treated by talking with a therapist, with antidepressant medication, or may resolve with time.

ALTERNATIVES TO HYSTERECTOMY

Some women who wish to avoid or postpone hysterectomy may use medications or less invasive surgical procedures. Medical and surgical alternatives to hysterectomy depend upon the

underlying disorder. The decision as to which treatment is "best" should be based upon a woman's particular medical problem, all available treatment options, and the risks and benefits of each type of treatment.

Some alternatives to vaginal hysterectomy include the following:

- Uterine artery embolization and myomectomy may be used to treat symptomatic leiomyoma (fibroids). (See "Patient information: Uterine fibroids (Beyond the Basics)".)
- Pain clinics may be able to treat patients with severe and chronic pelvic pain without surgery. (See "Patient information: Chronic pelvic pain in women (Beyond the Basics)".)
- Endometrial ablation, in which a physician destroys or removes most of the endometrium using an instrument inserted through the vagina and cervix and into the uterus. (See "Patient information: Menorrhagia (excessive menstrual bleeding) (Beyond the Basics)".)
- Medical therapy using hormonal medications, such GnRH analogs (for example, leuprolide) or progestins can help reduce the pain associated with endometriosis. (See "Patient information: Endometriosis (Beyond the Basics)".)
- Cone biopsy (eg, cold knife cone), cryosurgery, laser surgery, or loop electrocautery (eg, LEEP or LLETZ) are usually used to treat women with high-grade cervical intraepithelial neoplasia or carcinoma in situ of the cervix. These procedures remove the abnormal part of the cervix rather than the entire cervix and uterus (see "Patient information: Cervical cancer screening (Beyond the Basics)").

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

Patient information: Hysterectomy (The Basics)
Patient information: Uterine cancer (The Basics)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

Patient information: Abdominal hysterectomy (Beyond the Basics)
Patient information: Fertility preservation in women with early stage cervical cancer (Beyond the

Basics)
Patient information: Cervical cancer treatment; early stage cancer (Beyond the Basics)
Patient information: Anemia caused by low iron (Beyond the Basics)
Patient information: Menorrhagia (excessive menstrual bleeding) (Beyond the Basics)
Patient information: Uterine fibroids (Beyond the Basics)
Patient information: Follow-up of low-grade abnormal Pap tests (Beyond the Basics)
Patient information: Follow-up of high-grade abnormal Pap tests (Beyond the Basics)
Patient information: Chronic pelvic pain in women (Beyond the Basics)
Patient information: Postmenopausal hormone therapy (Beyond the Basics)
Patient information: Deep vein thrombosis (DVT) (Beyond the Basics)
Patient information: Care after gynecologic surgery (Beyond the Basics)
Patient information: Endometriosis (Beyond the Basics)
Patient information: Cervical cancer screening (Beyond the Basics)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

Abdominal hysterectomy
Chronic menorrhagia or anovulatory uterine bleeding
Laparoscopic approach to hysterectomy
Oophorectomy and ovarian cystectomy
Overview of causes of genital tract bleeding in women
Overview of hysterectomy
Peripartum hysterectomy
Radical hysterectomy
Sexual dysfunction in women: Epidemiology, risk factors, and evaluation
Terminology and evaluation of abnormal uterine bleeding in premenopausal women
Postmenopausal uterine bleeding
Vaginal hysterectomy

The following organizations also provide reliable health information.

- National Library of Medicine

(www.nlm.nih.gov/medlineplus/healthtopics.html)

- The American College of Obstetricians and Gynecologists

(www.acog.org)

- US Department of Health & Human Services, Federal Government Source for Women's Health Information

(womenshealth.gov)

[1-4]

Literature review current through: Jul 2013. | This topic last updated: Aug 17, 2012.
Find Print

References
Top

1. Meeks GR, Harris RL. Surgical approach to hysterectomy: abdominal, laparoscopy-assisted, or vaginal. Clin Obstet Gynecol 1997; 40:886.
2. Harris WJ. Complications of hysterectomy. Clin Obstet Gynecol 1997; 40:928.
3. Carlson KJ, Miller BA, Fowler FJ Jr. The Maine Women's Health Study: I. Outcomes of hysterectomy. Obstet Gynecol 1994; 83:556.
4. Rhodes JC, Kjerulff KH, Langenberg PW, Guzinski GM. Hysterectomy and sexual functioning. JAMA 1999; 282:1934.