



## **HYSTERECTOMY**

### **WHAT IS A HYSTERECTOMY?**

A hysterectomy is a surgical procedure whereby the uterus (womb) is removed. Hysterectomy is the most common non-obstetrical procedure of women in the United States.

### **WHY IS A HYSTERECTOMY PERFORMED?**

The most common reason hysterectomy is performed is for uterine fibroids. The next most common reasons are abnormal uterine bleeding, endometriosis, and uterine prolapse (including pelvic relaxation). Only 10% of hysterectomy is performed for cancer. This article will primarily focus on the use of hysterectomy for non-cancerous, non-emergency reasons, which can involve even more challenging decisions for women and their doctors.

Uterine fibroids (also known as uterine leiomyomata) are by far the most common reason a hysterectomy is performed. Uterine fibroids are benign growths of the uterus, the cause of which is unknown. Although they are benign, meaning they do not cause or turn into cancer, uterine fibroids can cause medical problems, such as excessive bleeding, for which hysterectomy is sometimes recommended. Pelvic relaxation is another condition that can require treatment with a hysterectomy. In this condition, a woman experiences a loosening of the support muscles and tissues in the pelvic area. This loosening can lead to symptoms such as urinary incontinence (unintentional loss of urine) and impaired sexual performance. The urine loss tends to be aggravated by sneezing, coughing, or laughing. Childbearing is probably involved in increasing the risk for pelvic relaxation, though the exact reasons for this remain unclear.

A hysterectomy is also performed to treat cancer of the uterus or very severe pre-cancers (called dysplasia). A hysterectomy for uterine cancer has an obvious purpose, that of removal of the cancer from the body. This procedure is the foundation of treatment for cancer of the uterus.

### **WHAT TESTS OR TREATMENTS ARE PERFORMED PRIOR TO A HYSTERECTOMY?**

Prior to having a hysterectomy for pelvic pain, women usually undergo more limited (less extensive) exploratory surgery procedures (such as laparoscopy) to rule out other causes of pain. Prior to having a hysterectomy for abnormal uterine bleeding, women require some type of sampling of the lining of the uterus (biopsy of the endometrium) to rule out cancer or pre-cancer of the uterus. This procedure is called endometrial sampling. In a woman with pelvic pain or bleeding, a trial of medication treatment is often given before a hysterectomy is considered.

Therefore, a premenopausal (still having regular menstrual periods) woman whose uterine fibroids are causing bleeding but no pain is generally first offered medical therapy with hormones. If she still has significant bleeding that causes major impairment to her daily life, or the bleeding continues to cause anemia (low red blood cell count due to blood loss), and she has no abnormality on endometrial sampling, she may be considered for a hysterectomy.

A postmenopausal woman (whose menstrual periods have ceased permanently) who has no abnormalities in the samples of her uterus (endometrial sampling) and still has persistent, abnormal bleeding after trying hormone therapy may be considered for a hysterectomy. Several dose adjustments or different types of hormones may be required to decide on the optimal medical treatment for an individual woman.

### **HOW IS A HYSTERECTOMY PERFORMED?**

Most commonly, a hysterectomy is done by an incision (cut) through the abdomen (abdominal hysterectomy) or through the vagina (vaginal hysterectomy). The hospital stay generally tends to be longer with an abdominal hysterectomy than with a vaginal hysterectomy (4 vs. 6 days on average) and hospital charges tend to be higher. The procedures seem to take comparable lengths of time (about 2 hours), unless the uterus is of a very large size, in which case a vaginal hysterectomy may take longer.

### **WHAT ARE THE TYPES OF HYSTERECTOMIES?**

There are now a variety of surgical techniques for performing hysterectomies. The ideal surgical procedure for each woman depends on her particular medical condition. Below, the different types of hysterectomy are discussed with general guidelines about which technique is considered for which type of medical situation. However, the final decision must be made from an individualized discussion between the woman and the physician who best understands her individual situation.

Remember, as a general rule, before any type of hysterectomy, women should have the following tests in order to select the optimal procedure:

1. Complete pelvic exam including manually examining the ovaries and uterus.
2. Up-to-date pap smear.
3. Pelvic ultrasound may be appropriate, depending on what the physician finds on the above.

### **TOTAL ABDOMINAL HYSTERECTOMY**

This is the most common type of hysterectomy. During a total abdominal hysterectomy, the doctor removes the uterus, including the cervix. The scar may be horizontal or vertical, depending on the reason the procedure is performed, and the size of the area being treated. Cancer of the ovary and uterus, endometriosis, and large uterine fibroids are treated with total abdominal hysterectomy. Total abdominal hysterectomy may also be done in some unusual cases of very severe pelvic pain, after a very thorough evaluation to identify the cause of the pain, and

only after several attempts at non-surgical treatments. Clearly a woman cannot bear children herself after this procedure, so it is not performed on women of childbearing age unless there is a serious condition, such as cancer. Total abdominal hysterectomy allows the whole abdomen and pelvis to be examined, which is an advantage in women with cancer or investigating growths of unclear cause.

### **VAGINAL HYSTERECTOMY**

During this procedure, the uterus is removed through the vagina. A vaginal hysterectomy is appropriate only for conditions such as uterine prolapse, endometrial hyperplasia, or cervical dysplasia. These are conditions in which the uterus is not too large, and in which the whole abdomen does not require examination using a more extensive surgical procedure. The woman will need to have her legs raised up in a stirrup device throughout the procedure. Women who have not had children may not have a large enough vaginal canal for this type of procedure. If a woman has too large a uterus, cannot have her legs raised in the stirrup device for prolonged periods, or has other reasons why the whole upper abdomen must be further examined, the doctor will usually recommend an abdominal hysterectomy (see above). In general, laparoscopic vaginal hysterectomy is more expensive and has higher complication rates than abdominal hysterectomy.

### **LAPAROSCOPY-ASSISTED VAGINAL HYSTERECTOMY**

This is similar to the vaginal hysterectomy procedure described above, but it adds the use of a laparoscope. A laparoscope is a very thin viewing tube with a magnifying glass-like device at the end of it. Certain women would be best served by having laparoscopy used during vaginal hysterectomy because it allows the upper abdomen to be carefully inspected during surgery. Examples of uses of the laparoscope would be for early endometrial cancer, to verify lack of spread, or if oophorectomy (removal of the ovaries) is planned. Compared to simple vaginal hysterectomy or abdominal hysterectomy, it is a more expensive procedure, is more prone to complications, requires longer to perform, and is associated with longer hospital stays. Just as with simple vaginal hysterectomy without a laparoscope, the uterus must not be excessively large. The physician will also review the medical situation to be sure there are no special risks prohibiting use of the procedure, such as prior surgery that could have increased the risk for abnormal scarring (adhesions). If a woman has such a history of prior surgery, or if she has a large pelvic mass, a regular abdominal hysterectomy is probably best.

### **SUPRACERVICAL HYSTERECTOMY**

A supracervical hysterectomy is used to remove the uterus while sparing the cervix, leaving it as a "stump." The cervix is the area that forms the very bottom of the uterus, and sits at the very end (top) of the vaginal canal (see illustration above). The procedure probably does not totally rule out the possibility of developing endometrial cancer in this remnant "stump." Women who have had abnormal pap smears or cancer of the cervix clearly are not appropriate candidates for this procedure. Other women may be able to have the procedure if there is not reason to have the cervix removed. In some cases the cervix is actually better left in place, such as some cases of severe endometriosis. It is a simpler procedure and requires

less time to perform. It may give some added support of the vagina, decreasing the risk for the development of protrusion of the vaginal contents through the vaginal opening (vaginal prolapse).

### **RADICAL HYSTERECTOMY**

This procedure involves more extensive surgery than a total abdominal hysterectomy because it also includes removing tissues surrounding the uterus and removal of the upper vagina. Radical hysterectomy is most commonly performed for early cervix cancer. There are more complications with radical hysterectomy compared to abdominal hysterectomy. These include injury to the bowels and urinary system.

### **OOPHORECTOMY AND SALPINGO-OOPHORECTOMY (REMOVAL OF THE OVARIES AND/OR FALLOPIAN TUBES)**

Oophorectomy is the surgical removal of the ovary while salpingo-oophorectomy is the removal of the ovary and its adjacent fallopian tube. These two procedures are performed for cancer of the ovary, removal of suspicious ovarian tumors, or Fallopian tube cancer (which is very rare). They may also be performed due to complications of infection, or in combination with hysterectomy for cancer. Occasionally, a women with inherited types of cancer of the ovary or breast will have an oophorectomy as preventative (prophylactic) surgery in order to reduce the risk of future cancer of the ovary or breast. Such familial disorders are very rare.

### **WHAT ARE COMPLICATIONS OF A HYSTERECTOMY?**

Complications of a hysterectomy include infection, pain, and bleeding in the surgical area. An abdominal hysterectomy has a higher rate of post-operative infection and pain than does a vaginal hysterectomy.

### **WHAT ARE THE ALTERNATIVES TO A HYSTERECTOMY?**

As mentioned above, a hysterectomy for conditions other than cancer is generally not considered until after other tests or medications are unsuccessful. There are also newer procedures, such as uterine artery embolization or surgical removal of a portion of the uterus (myomectomy), that are being used to treat excessive uterine bleeding.

### **SHOULD WOMEN WHO HAVE HAD A HYSTERECTOMY CONTINUE TO HAVE PAP SMEARS?**

Any woman with a history of abnormal pap smears is recommended to have pap smears for the remainder of her life. When the cervix has already been removed, these smears are more accurately called "vaginal cuff" smears, instead of pap smears. This is because of the low but real chance that a cervix cancer can recur right at the surgical site where the cervix was removed.

In addition to women with a history of abnormal pap smears, other women who require continued pap smears are women with supracervical hysterectomy, in which the cervix was left in place. In this case, in contrast to the woman who has had

hysterectomy for reasons of cervix cancer, the woman who has had supracervical hysterectomy will be able to follow the same screening guidelines as for other woman who have not had surgery. For example, the physician can stop doing pap smears at age 65 if the woman has been well-screened and has always had normal pap smears.

Women who do not need to continue having pap smears are those who have had vaginal hysterectomy or abdominal hysterectomy for benign (not cancer) reasons, such as uterine fibroids. Provided that they have had normal pap smears prior to the procedure, they need not continue to have pap smears after their surgery. This should not come as a surprise, because they have no cervix left to sample!

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