Patient advice

Surgical removal of uterus (hysterectomy)

Uterus and its position in the body

In normal conditions the uterus is a hollow organ weighing about 80-100g, the function of which is to nurture the fertilized ovum developing into the fetus and to hold it till the baby is mature enough for birth; it serves reproductive purposes. Every month, the endometrium, the lining of the uterus, ripens in the uterine cavity. In absence of fertilization, endometrial elimination begins (as menstrual bleeding). After surgery, your menstrual cycle will stop. And you will also lose any chance to get pregnant in future. The uterus lies in the lesser pelvis between the urinary bladder and rectum. After surgery the empty space will be filled by the surrounding organs (intestines) in the abdominal cavity. The uterus is maintained in its position by the ligaments providing support and fixing the vagina.

Most common surgery occurs for a uterine myoma (benign growth of smooth muscle of uterus wall). Another indication for surgery is a recurring, irregular and extremely intense bleeding). The surgery is performed only after other treatments were unsuccessful. The recurring and heavy bleeding often leads to the necessity of blood transfusion. Other causes for removal of the uterus are quite rare, including the recurring pre-tumor significant changes in the cervix or endometrium, uncontrollable bleeding after labor, or after artificial termination of pregnancy, malignant tumor of the cervix, uterus or ovary. The extent of surgery in malignant tumors differs from the procedure described below.

Examinations before surgery

Apart from the preoperative medicinal assessment, also ultrasound imaging is made. Hysteroscopy (examination of the uterine cavity by an optical instrument) and gentle abrasion (endometrial sample for histology testing) are often made before the surgery with the aim to exclude possible malignant uterine disease. However, it needs to be emphasized that it is not possible to exclude malignant tumor of the uterus or of the surrounding organs, as it may be determined only by histology testing (tissue examination under the microscope).

Surgery

Hysterectomy may be abdominal or vaginal. In case of abdominal hysterectomy, the incision runs down from the belly button or transversally above the pubic bone. Hysterectomy may be performed by laparoscopy; laparoscopic assisted vaginal surgery is a modern method combining the advantages of the two traditional approaches, and enabling surgery when the problems cannot be removed by vaginal approach. In total laparoscopic hysterectomy, the whole procedure is performed by laparoscopy; and the uterus is removed from vagina. The esthetic effect of laparoscopy is very good (usually three –four scars of up to one centimeter in size in the underbelly).

We will do our best to choose an acceptable and safe method of surgery. In case of complications during surgery, the surgeon may decide to change the procedure from vaginal or endoscopic/laparoscopic to abdominal procedure. In all cases vagina ends in a blind pouch scar.
The surgery is performed in general anesthesia (after the patient falls asleep) following the preceding intestinal preparation by means of enema and vaginal disinfection. Do not eat, drink or smoke at least six hours before surgery. Prior to laparoscopy, inform the surgeon on any surgery procedures intervening with the abdominal cavity and inflammatory processes in the abdominal cavity (fallopian tube, ovary, gall bladder...) before the planned laparoscopy! Do not forget to mention also to the complications in postoperative periods of the past surgery procedures of this kind!

**Complications**

Surgical complications may be divided into:

- bleeding during surgery (damaged large blood vessels),

- damaging the organs close to the uterus (rectum, urinary bladder, fallopian tubes), and the organs that may be injured when entering the abdominal cavity (intestine, stomach, blood vessels).

These complications occur very rarely, but when they occur, it may often be necessary to change laparoscopic or vaginal to abdominal approach, a follow-up surgery may also be required. Not even with the most experienced surgeons, these complications may be 100 percent avoided.

**Postoperative complications**

- postoperative bleeding (surgery may be repeated)

- potential thrombi (blood clots) formation especially in the veins of the lower extremities with possible pulmonary embolism and risk to life

- pus formation in the surgical wound – possibility of postoperative fistula (abnormal connection) between the urinary and intestinal tracts, with urine or stool leaking through the vagina. Even with the greatest care taken, damaging the integrity of urinary organs (ureter, bladder, urethra) or the wall of the small or large intestine damage may occur, especially in cases of severe bleeding during surgery, or as a result of excessive adhesions present in the abdominal cavity. These complications will usually require further surgical treatment.

Antibiotics coverage and administration of anti-coagulants before and after surgery significantly reduce the occurrence of postoperative complications of thrombus and pus formation.

Quite seldom, urinary catheters are used for one or more days when the bladder cannot function normally. Postoperative pain is relieved by medication. The pain after laparoscopy or after vaginal surgery is quite mild. The length of hospital stay varies in individual cases, but the average length is four or five days.

Healing of vaginal scar may take some time, being manifested by spotting or abnormal vaginal discharge for up to two months. In such cases, taking showers only is recommended
for one month. As already mentioned, your menstrual bleeding will stop and you will not be able to get pregnant.

**Removing or keeping the ovaries**

With keeping your ovaries you will not need to fear any menopause symptoms. If, at the time of surgery, you have no menstrual periods, the removal of ovaries will not affect your hormone levels. The development of menopause is to be considered in cases when, at the time of surgery, you still have your regular menstrual cycle, and the ovaries have been removed during the surgery because of their disorders. In such case, you will discuss the hormone replacement therapy with your gynecologist. The question whether to remove or keep the ovaries may be dealt on individual basis depending on various factors (oncologic family history, i.e. the occurrence of tumor diseases in the family, or your own wish, especially at the time of menopause when the ovaries cease to perform their function, when you may decide to have them removed.

Removal of ovaries is recommended to all women older than fifty.

This way, some future ovary and fallopian tube disorders may be prevented.

In general, the surgery only includes the procedures of removal of the organs to the extent necessary for treating and curing the patient.

With your attending surgeon you will discuss the schedule of postoperative control check ups.

Sexual abstention is recommended for up to two months after the surgery for risks of severe bleeding resulting from injury of the shortened, closed vagina. The injury of vaginal scar may occur as a result of the conditions in which pressure in the abdominal cavity increases (constipation, sneezing while holding the breath, lifting heavy objects, etc.).

Problems in sexual life after hysterectomy appear in 10% of women on average. Surgical removal of the uterus may be effectively complemented by some vaginal plastic surgery for shortened and constricted vagina. You may consult any concerns related to sexual life after hysterectomy with your attending physician.