

## Gynecology

# Adenomyosis (Engelse vertaling)

This brochure will inform you about adenomyosis. What is adenomyosis, and how does it occur? In whom does it occur, and what are the associated symptoms? What does the examination for adenomyosis look like? What are the treatment options?

### What is adenomyosis?

Adenomyosis is a benign condition of the uterus. The uterus, which is the shape and size of a pear, consists of a muscular wall. On the inside, there is the uterine cavity. The interior of the uterine cavity is lined with a mucous membrane (endometrium). Every month, hormones build up the endometrium. The ovaries make these hormones. At the end of the menstrual cycle, fewer hormones are produced. The built-up lining is then shed; this is menstruation. In adenomyosis, this endometrium has grown into the muscle wall of the uterus. This endometrium also responds to hormone changes. Changes in the shape and size of this cavity and muscle wall, such as adenomyosis, can cause excessive blood loss and pain symptoms. In addition, adenomyosis can sometimes make getting pregnant more difficult.

### How does adenomyosis arise?

It is not yet known precisely how adenomyosis occurs. We think that the mucous membrane grows into the muscle wall from the cavity. This could be due to weaknesses in the inner muscle layer and random movements of the uterus. We see these movements in many women, but not all of them get adenomyosis. Another possibility looks like the development of [endometriosis](#). It is usual for blood to come out during menstruation not only through the vulva but also a tiny amount through the fallopian tubes into the abdominal cavity. With this blood, some endometrial tissue may also end up in the abdominal cavity, possibly settling on the outside of the muscle layer of the uterus. This can then grow from the outside in this way. An increased immune response is also seen in uteruses with adenomyosis, with more blood vessels going to the affected tissue. In doing so, you often see that the uterus is also larger and better supplied with blood.

### In whom does adenomyosis occur, and how often?

Adenomyosis occurs in women at the stage of life when they are menstruating. In the past, adenomyosis was seen when the uterus was examined after it was surgically removed.

Therefore, it was more commonly seen in women between the ages of 40 and 50, with a decreased desire for children and blood loss and pain complaints. Nowadays, it can also be diagnosed without surgery. Therefore, adenomyosis is now seen more often in younger women who want to keep their uterus. In about three-quarters of women with adenomyosis, fibroids, endometriosis, or polyps are also seen. Previous surgery in the uterus, such as curettage, may increase the risk of adenomyosis. Multiple pregnancies also seem to be a risk for adenomyosis. However, adenomyosis is increasingly being discovered in women with problems conceiving and miscarriages.

## **What are the symptoms appropriate to adenomyosis?**

Adenomyosis can cause unpleasant symptoms and possibly play a role in reduced fertility. However, one-third of women with adenomyosis have no symptoms at all; this is often discovered accidentally. At this time, it is not possible to predict which complaints will occur. It may be that few symptoms accompany extensive adenomyosis or that mild adenomyosis causes many symptoms. Below are described the symptoms that can be caused by adenomyosis. However, the related symptoms can also have another cause.

### **Severe menstrual blood loss**

Many women with adenomyosis present with heavy or abnormal menstrual blood loss. You may also have symptoms of more prolonged periods or intermittent blood loss. Severe blood loss means something different to each woman. Some consider it heavy if it is more than they are used to; others call it heavy because they need a lot of tampons or pads, leakage, and frequent changes. A 'menstrual scorecard' can be used to determine if menstruation is abnormally profuse (see: 'how is adenomyosis demonstrated? '). Sometimes the blood loss can be so severe that anemia results.

### **Painful periods (dysmenorrhea)**

Painful periods are considered normal by many women, but this can be a manifestation of adenomyosis. Pain symptoms can cause you to need pain medication and sometimes even call in sick. If more signs of adenomyosis are seen, we see women report higher pain scores. Chronic pain symptoms may exist outside of menstruation. However, menstrual pain does not always indicate adenomyosis and may also have another cause, such as endometriosis.

### **Pain during sexual intercourse (dyspareunia)**

Due to the pain in the lower abdomen, there may also be pain during sexual intercourse. This pain is located deep in the abdomen. Pain at the entrance to the vulva usually has a different cause. With complaints of painful intercourse, other factors often play a role, such as unpleasant sexual experiences in the past or less desire for sex.

### **Reduced fertility**

There is evidence that adenomyosis can cause problems with getting pregnant (fertility). This seems to be due to the difficulty implanting the fetus and the hostile environment created by the increased immune response. Further research into this is being conducted at the Amsterdam UMC. If getting pregnant is unsuccessful, patients are referred to the Reproductive Medicine outpatient clinic.

## How is adenomyosis demonstrated?

To determine whether your symptoms are caused by adenomyosis, a gynecological examination is performed. An internal vaginal ultrasound follows this. Often a blood sample will be taken. Finally, it may be necessary to do other additional tests.

### Menstruation scorecard (Pictorial Blood loss Assessment Chart)

Using the so-called "menstrual scorecard" it is possible to determine if menstruation is abnormally abundant. Here, you should track how many pads and/or tampons you use during 1 period. Your doctor will discuss this with you and explain it to you

### Gynecological examination

Examination with a speculum involves assessing the cervix. Sometimes a smear is also taken. Vaginal touching (internal examination with two fingers and the other hand on the abdomen) can be felt whether the uterus is enlarged and mobile (non-adherent).

### Ultrasound examination

The internal vaginal ultrasound is the best way to assess whether there is adenomyosis. We then usually do a 3D ultrasound as well (it makes no difference to the patient). Sometimes a water or gel ultrasound is also made. Then water or gel is inserted into the uterus through a speculum. In this way, the uterine cavity is better visualized. Usually, there is 'diffuse' adenomyosis, where it can be seen scattered in several places. Sometimes it is very localized, in which case it is called an adenomyoma.

### Additional research

If you experience heavy menstrual blood loss, blood will be taken from you for testing for anemia (a hemoglobin determination). Sometimes it may be necessary to have an additional MRI done by the radiology department.

## What are the treatments for adenomyosis?

If there are no symptoms of adenomyosis, treatment is not always necessary. However, the symptoms can worsen if patients continue to menstruate (see: "how does adenomyosis occur?"). The aim of treatment is, therefore, often to ensure that patients stop bleeding. This is done through hormones. Medications may also be prescribed that only reduce the symptoms. If this does not help sufficiently, it may be necessary to perform surgery.

### Medications: non-hormones

These medications do not cause patients to stop menstruating. However, they are prescribed to reduce pain or bleeding symptoms.

- *Prostaglandin synthetase inhibitors*: such as ibuprofen, diclofenac, and naproxen, reduce menstrual pain and decrease blood loss by an average of 30%. The package inserts describe many possible side effects, but they appear to be relatively rare in practice.
- *Tranexamic acid*: This drug affects blood clotting and is only taken during days of heavy blood loss. As the blood clots faster here, less blood is lost. On average, blood loss decreases by

half, and four out of five women appear satisfied. However, little data is known about long-term satisfaction. Women who have ever had thrombosis should not use this drug.

### **Medications: hormones**

Hormonal medications can cause women to stop menstruating. However, as long as there is no menstruation, the pain and bleeding symptoms will also improve. In addition, we believe that this will not worsen the adenomyosis.

- *Contraceptive pill*: this sees less intense menstruation. Preferably, use it without a stop week so that no menstruation takes place at all. However, in case of high blood pressure or smoking, the pill is sometimes advised against.
- *Progesterone preparations*: such as the mirena IUD, the nuvaring or orgametrile. With these, often no ovulation occurs, so there is no menstrual cycle. And in addition, the endometrium becomes less sensitive to the hormones produced by the ovaries.
- *GnRH analogues*: such as Lucrin. These are medications that mimic post-menopause (after menopause). The ovaries are shut down, so they no longer produce hormones. As a result, the endometrium does not react to them. Transition symptoms, such as hot flashes and night sweats, may occur. You may be given other hormones to compensate for this.

### **Intervention**

Surgery may be necessary if medications do not adequately help the symptoms or women experience unpleasant side effects.

- *Adenomyectomy*: the removal of an adenomyoma with keyhole surgery. If the problem area is very localized and small, there is an adenomyoma. This is not common, but this can be removed surgically in some cases.
- *Hysterectomy*: the removal of the uterus. If the desire to have children is terminated and the symptoms persist despite medication, the uterus can be removed. This can often be done through keyhole surgery. When pain is the main symptom, the surgeon will first check whether there is another cause.
- *Embolization*: closing the blood vessels that supply blood to the adenomyosis in the uterus. The uterus is preserved, and no surgery is required. This is only done in a study context (Questa study, [www.questa-studie.nl](http://www.questa-studie.nl)). The desire to have children must also be fulfilled. If you qualify for this, the doctor will discuss it with you.

### **Learn more**

Do you have any questions? For more information, please visit the [Uterine Repair Center](#) website. You can also discuss it with your doctor or gynecologist.