Diseases and Conditions

Adenomyosis

By Mayo Clinic Staff

Adenomyosis (ad-uh-no-my-O-sis) occurs when endometrial tissue, which normally lines the uterus, exists within and grows into the muscular wall of the uterus. The displaced endometrial tissue continues to act as it normally would — thickening, breaking down and bleeding — during each menstrual cycle. An enlarged uterus and painful, heavy periods can result.

Symptoms most often start late in the childbearing years after having children.

The cause of adenomyosis remains unknown, but the disease typically disappears after menopause. For women who experience severe discomfort from adenomyosis, certain treatments can help, but hysterectomy is the only cure.

Sometimes, adenomyosis is silent — causing no signs or symptoms — or only mildly uncomfortable. In other cases, adenomyosis may cause:

- Heavy or prolonged menstrual bleeding
- Severe cramping or sharp, knifelike pelvic pain during menstruation (dysmenorrhea)
- Menstrual cramps that last throughout your period and worsen as you get older
- Pain during intercourse
- Blood clots that pass during your period

Your uterus may get bigger. Although you might not know if your uterus is enlarged, you may notice that your lower abdomen seems bigger or feels tender.

When to see a doctor

If you have prolonged, heavy bleeding or severe cramping during your periods — and it interferes with your regular activities — make an appointment to see your doctor.

The cause of adenomyosis isn't known. Expert theories about a possible cause include:

- **Invasive tissue growth.** Some experts believe that adenomyosis results from the direct invasion of endometrial cells from the lining of the uterus into the muscle that forms the uterine walls. Uterine incisions made during an operation such as a cesarean section (C-section) may promote the direct invasion of the endometrial cells into the wall of the uterus.

- **Developmental origins.** Other experts speculate that adenomyosis originates within the uterine
m️sue from endometrial tissue deposited there when the uterus first formed in the fetus.

- **Uterine inflammation related to childbirth.** Another theory suggests a link between adenomyosis and childbirth. An inflammation of the uterine lining during the postpartum period might cause a break in the normal boundary of cells that line the uterus. Surgical procedures on the uterus may have a similar effect.

- **Stem cell origins.** A recent theory proposes that bone marrow stem cells may invade the uterine muscle, causing adenomyosis.

Regardless of how adenomyosis develops, its growth depends on the circulating estrogen in a woman's body. When estrogen production decreases at menopause, adenomyosis eventually goes away.

Risk factors for adenomyosis include:

- Prior uterine surgery, such as a C-section or fibroid removal
- Childbirth
- Middle age

Most cases of adenomyosis — which depends on estrogen — are found in women in their 40s and 50s. Adenomyosis in middle-aged women could relate to longer exposure to estrogen compared with that of younger women. Until recently, adenomyosis was most often diagnosed only when a woman had a hysterectomy. Current research suggests that the condition may also be common, but often undetected, in younger women.

If you often have prolonged, heavy bleeding during your periods, chronic anemia may result. Anemia causes fatigue and other health problems. See your doctor if you suspect you may have anemia.

Although not harmful, the pain and excessive bleeding associated with adenomyosis can disrupt your lifestyle. You may find yourself avoiding activities that you've enjoyed in the past because you have no idea when or where you might start bleeding.

Painful periods can cause you to miss work or school and can strain relationships. Recurring pain can lead to depression, irritability, anxiety, anger and feelings of helplessness. That's why it's important to see a doctor if you suspect you may have adenomyosis.

Your first appointment will be with either your primary care provider or your gynecologist. To save time and make sure you cover everything you want to discuss, it's a good idea to prepare for your appointment.

**What you can do**

Before your appointment:

- **Write down any symptoms you're experiencing.** Include those that may seem unrelated to your condition.
- **Make a list of any medications or vitamin supplements you take.** Write down doses and how often you take them.
- **Take a notebook or electronic notepad with you.** Use it to write down important information during your visit.
Think about questions to ask your doctor. Write down any questions, listing the most important ones first.

For adenomyosis, some basic questions to ask your doctor include:

- How is adenomyosis diagnosed?
- How much experience do you have in diagnosing and treating adenomyosis?
- Are there any medications I can take to improve my symptoms?
- What side effects can I expect from medication use?
- Under what circumstances do you recommend surgery?
- Will I take a medication before or after surgery?
- Could my condition affect my ability to become pregnant?
- Are there any alternative treatments I might try?

Don't hesitate to ask your doctor to repeat information or to ask follow-up questions.

What to expect from your doctor

Some questions your doctor might ask include:

- How long have you been experiencing symptoms?
- When do symptoms typically occur?
- How severe are your symptoms?
- When was your last period?
- Could you be pregnant?
- Are you using a birth control method?
- Do your symptoms seem to be related to your menstrual cycle?
- Does anything seem to improve your symptoms?
- Does anything make your symptoms worse?

Your doctor may suspect adenomyosis based on:

- Signs and symptoms
- A pelvic exam that reveals an enlarged, tender uterus
- Ultrasound imaging of the uterus
- Magnetic resonance imaging (MRI) of the uterus

In some instances, your doctor may collect a sample of uterine tissue for testing (endometrial biopsy) to verify that your abnormal uterine bleeding isn't associated with any other serious condition. But, an endometrial biopsy won't help your doctor confirm a diagnosis of adenomyosis. The only way to be certain of adenomyosis is to examine the uterus after surgery to remove it (hysterectomy).

Other uterine diseases can cause signs and symptoms similar to adenomyosis, making adenomyosis difficult to diagnose. Such conditions include fibroid tumors (leiomyomas), uterine cells growing outside the uterus (endometriosis) and growths in the uterine lining (endometrial polyps). Your doctor may
conclude that you have adenomyosis only after determining there are no other possible causes for your signs and symptoms.

Adenomyosis usually goes away after menopause, so treatment may depend on how close you are to that stage of life.

Treatment options for adenomyosis include:

- **Anti-inflammatory drugs.** If you're nearing menopause, your doctor may have you try anti-inflammatory medications, such as ibuprofen (Advil, Motrin IB, others), to control the pain. By starting an anti-inflammatory medicine two to three days before your period begins and continuing to take it during your period, you can reduce menstrual blood flow and help relieve pain.

- **Hormone medications.** Combined estrogen-progestin birth control pills or hormone-containing patches or vaginal rings may lessen heavy bleeding and pain associated with adenomyosis. Progestin-only contraception, such as an intrauterine device, or continuous-use birth control pills often lead to amenorrhea — the absence of your menstrual periods — which may provide symptom relief.

- **Hysterectomy.** If your pain is severe and menopause is years away, your doctor may suggest surgery to remove your uterus (hysterectomy). Removing your ovaries isn't necessary to control adenomyosis.

To ease pelvic pain and cramping related to adenomyosis:

- Soak in a warm bath.
- Use a heating pad on your abdomen.
- Take an over-the-counter anti-inflammatory medication, such as ibuprofen (Advil, Motrin IB, others).

**References**


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