

## Endometriosis - causes and risk factors

The tissue that lines the inside of the uterus is called the endometrium. Endometriosis is the growth of endometrial tissue in places outside the uterus, such as the ovaries, uterus, bowel and lining of the pelvic cavity. The causes of endometriosis remain unknown, but researchers have uncovered a number of possible causes and risk factors.

Endometriosis can cause numerous symptoms, including painful periods and pain with sex, fertility problems, pelvic and ovulation pain, pain in the lower back and thighs, and bowel and bladder symptoms.

Usually, endometriosis causes pain around the time of the period, but some women experience almost constant pain. If you have bad period pain, you should see your doctor.

### Stray endometrial cells respond to hormones

The endometrium responds to the sex hormones oestrogen and progesterone. In women with endometriosis, the stray endometrial cells in the pelvic cavity also respond to these hormones.

During ovulation, oestrogen prompts the uterine lining – and the misplaced endometrial cells – to thicken. However, the misplaced endometrial cells cannot leave the body via menstruation; they simply bleed a little, causing inflammation and pain, and then heal. Over time, this may create scar tissue. Affected organs, such as the ovaries and bowel, may stick together. This can cause chronic pain and bowel symptoms. Sometimes, it can cause fertility problems if the scar tissue (adhesions) stops the released egg from getting to the fallopian tube.

### Genetic susceptibility

Studies indicate that some women are genetically predisposed to developing endometriosis. According to researchers from the University of Queensland, endometriosis runs in families, which means the genetic susceptibility is inherited.

Australian researchers have found that women who have a sister with the disease are 2.3 times more likely to have the disease than women in the general community. The increased likelihood of developing the disease is not just confined to the daughters and sisters of women with the disease but also affects their cousins.

### Possible causes

Some of the theories on what causes endometriosis include:

- Retrograde menstruation
- Immune system malfunction
- Genetic factors.

### Retrograde menstruation

Retrograde menstruation is also known as 'backward menstruation'. The lining of the uterus is shed during the period. In almost all women, some of the menstrual fluid flows backwards into the fallopian tubes instead of leaving the body through the vagina.

Since the fallopian tubes are open-ended (they are not joined to the ovaries, but open nearby), menstrual fluid can drip into the pelvic cavity. It is suspected that, in women who experience endometriosis, the endometrial tissue contained in the menstrual fluid sticks to whatever structures it lands on (such as the ovaries) and starts to grow.

## Immune system malfunction

Retrograde menstruation occurs in almost all women, but only 3–10 per cent of menstruating women develop endometriosis. One theory suggests that the immune systems of some women allow endometriosis to develop by failing to control or stop the growth of endometrial tissue outside the uterus.

## The genetic factor

It seems that genetic susceptibility plays a significant role in the development of endometriosis – but how? Some researchers suspect that some families carry faulty genes that allow abnormal cells to survive and grow in the pelvic cavity.

## Risk factors

Apart from genetic susceptibility, some of the suspected risk factors include:

- **Menstrual cycle factors** – some evidence suggests that women with endometriosis are more likely to have started their periods at an early age. Other factors related to the menstrual cycle that may predispose a woman to endometriosis include heavy or painful periods, short menstrual cycles (less than 27 days) and long periods (more than one week).
- **Allergies** – such as food, eczema and hay fever.
- **Obesity**.
- **Exposure to toxins** – persistent environmental pollutants, such as dioxins, are suspected of contributing to the development of endometriosis. Animal experiments have indicated such an effect, but at levels of exposure higher than those currently seen in humans.

## Reducing your endometriosis risk

Factors that may help reduce your risk of endometriosis include:

- Aerobic exercise of five hours per week – studies show a 50 per cent reduction in the risk of recurrence
- Childbearing – reduces the risk of recurrence by about 50 per cent.
- The contraceptive pill – this prevents ovulation, during which there is a surge of oestrogen production and spill into the pelvis.

## Where to get help

- Your doctor
- Endometriosis Care Centre of Australia Tel. (03) 9415 6855

## Things to remember

- Endometriosis is the growth of endometrial cells outside the uterus, which causes symptoms that may include painful periods and fertility problems.
- The exact cause is unknown, but researchers have proposed a number of theories, including the theory of retrograde menstruation.
- The fact that endometriosis runs in families may suggest a genetic link.

**This page has been produced in consultation with, and approved by:**

Endometriosis Care Centre of Australia (ECCA)

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