

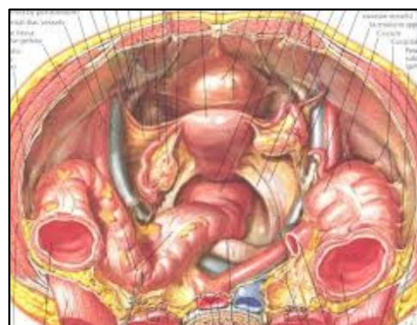
# Endometriosis

## What is endometriosis?

*Endometriosis* is a chronic inflammatory condition in which cells similar to *endometrium* implants and bleeds *outside* the uterine cavity in response to cyclical ovarian hormones. *Endometrium* is the active layer of cells and glands that normally forms *inside* the cavity of the uterus in response to *ovarian hormones*.

Endometrium grows in response to *oestrogen* in the first part of the menstrual cycle. Following ovulation (the release of a mature egg), endometrium becomes engorged with blood vessels and secretions in response to a rise in *progesterone* to prepare for implantation of a fertilised egg. If pregnancy does not occur, endometrium breaks down resulting in *menstruation*.

As endometriotic implants also swell, bleed but cannot be dislodged, this results in recurrent, progressive inflammation. Undetected, endometriosis may cause period pain, chronic pelvic pain and infertility.



## Where does endometriosis occur?

The most common sites are:

- The peritoneum covering intra-abdominal and pelvic organs
- The utero-sacral ligament
- The pouch of Douglas
- The ovaries
- The fallopian tubes
- The bladder and ureters
- The bowels – appendix, large, small intestines

## What are the symptoms of endometriosis?

Classically severe period pain is the most common symptom linked to endometriosis. However, as period pain may fluctuate in severity from month to month, it can be difficult to tell if severe period pain may be caused by endometriosis.

### CARE Endometriosis symptom check list

#### Pain:

- with period
- during ovulation
- with intercourse
- when passing urine
- on opening bowels
- low back pain or legs

#### Abnormal bleeding:

- heavy
- irregular bleeding
- premenstrual spotting.

#### Bowel symptoms:

- abdominal bloating
- diarrhoea or constipation
- painful bowel movements during period
- symptoms suggestive of irritable bowel syndrome

#### Infertility:

- 30 -50% of women with primary infertility
- Unsuccessful IVF

#### General symptoms:

- chronic fatigue
- fibromyalgia

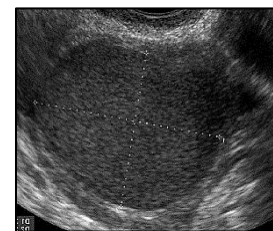
In general, disabling *cyclical* or *non-cyclical* pelvic pain which interferes with study, work or physical activities and not controlled by medications or hormonal medications such as oral contraceptive pill or progestogens should be regarded as abnormal.

If pain is accompanied by other symptoms such as *infertility*, *abdominal bloating*, *bowel disturbance* or *chronic fatigue*, complete the CARE Endometriosis symptom check list and see your family doctor for advice.

### How is endometriosis diagnosed?

Endometriosis can be suspected on the basis of symptoms, physical and imaging test findings, but at present the diagnosis can only be confirmed visually by laparoscopy.

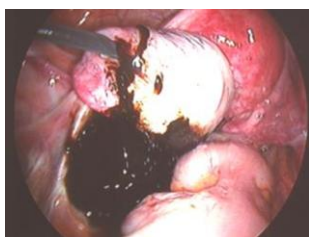
*Pelvic examination* findings (in sexually active women) which may raise clinical suspicion of endometriosis include reduced uterine mobility, tenderness or palpable nodules behind the cervix area (pouch of Douglas), or pelvic mass if endometriosis is present.



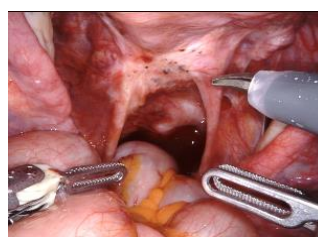
*Pelvic ultrasound*, particularly transvaginal route (in sexually active women) is the first line investigation to look for **endometriotic cyst** (chocolate cyst) or deep nodules of endometriosis. However, a normal ultrasound examination does not exclude endometriosis as surface implants are often not detectable. *MRI* is reserved for specific cases of severe endometriosis which involve bowels, bladder or ureter.

*Laparoscopy*, a day procedure in which a small telescope introduced through a small incision at the umbilicus, is the most accurate way to diagnose and assess the severity and locations of endometriosis.

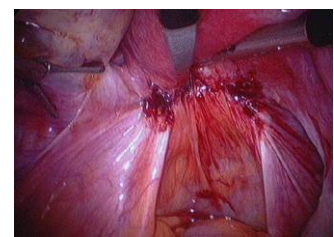
Your doctor may describe the extent of endometriosis in simple terms such as mild, moderate or severe, or use the ASRM staging classification (stage 1 to 4).



Endometriotic cyst



Peritoneal implants



Rectal and POD endometriosis

### How can endometriosis be treated?

The treatment options for endometriosis will vary from person-to-person, from time-to-time.

While endometriosis cannot be 'cured', the condition can often be successfully managed using a holistic, individualised *goal-orientated* approach. This means you will be guided by your family doctor and endometriosis specialist to define what your main goal(s) of seeking treatment is/are:

- (i) symptom-control (pain)
- (ii) problem-resolution (infertility)
- (iii) organ-protection (reproductive organs, bowels, bladder, ureter)

The available management options include:

- Wait and see (tolerable pain, fertility not currently considered, organs not at risk of damage)
- Medical treatments - analgesics, hormones (combined pill, progestogens, GnRH analogues)
- Surgery – to improve pain and fertility prospect, to repair organ damage
- Assisted reproductive techniques – to overcome infertility
- Combination of above options

By taking into consideration individual factors such as age, severity of symptoms, fertility planning, response to hormonal and fertility treatments, your doctor will help you choose the most suitable treatment for you based on discussion and evaluation of benefits, risks and outcomes of available treatment options.

### **How common is endometriosis?**

Endometriosis may affect women at any time during menstruating years (from puberty to menopause). It is estimated that 5-10% of women may have this condition. The probability may be 5 times higher if a first-relative has endometriosis. Endometriosis may be found in 30 to 50% of women presenting with chronic pelvic pain or infertility,

### **What causes endometriosis?**

The cause of endometriosis is not known but may occur due to a combination of (i) genetic predisposition (ii) immunological dysfunction (iii) retrograde menstruation and (iv) a variety of environmental factors.

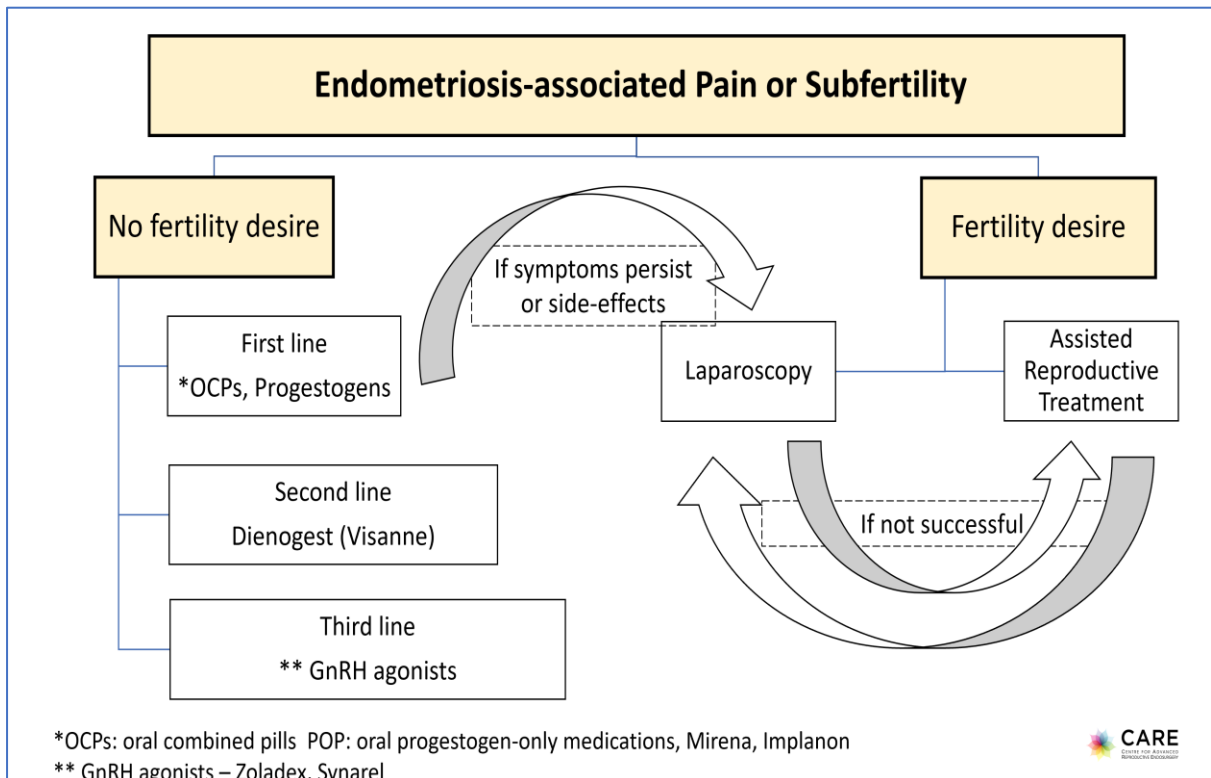
### **Can endometriosis be cured?**

While there is no cure for endometriosis, in the majority of cases, endometriosis-associated pain and infertility can be effectively and successfully treated (see flow charts).

It is estimated that between 10-20% of women may develop recurrent symptoms within 1 to 5 years of treatment. This may be due to a combination of inherent susceptibility (genetic predisposition and immune dysfunction) or persistent disease (progression of incompletely removed endometriosis).

Contraceptive pill, Mirena IUD, pregnancy and breast feeding may help reduce the likelihood of recurrence by reducing retrograde menstruation and modifying natural ovarian hormone exposure.

## Goal-oriented Management Pathway



### List questions you would like to discuss:

- 1.
- 2.
- 3.
- 4.
- 5.

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**CARE** is a multidisciplinary tertiary referral centre specialising in diagnosis and management of endometriosis, particularly involving ovaries, bowels and urinary tract.

Our team include:

- Associate Professor Alan Lam, Dr Jessica Lowe – endometriosis specialists
- Drs Yasser Salama, Shahir Kabir - colorectal surgeons
- Drs Justin Vass, Amanda Chung - urological surgeons
- Drs Glen Sheh, Nathan Taylor - pain medicine specialists
- IVF specialists – Drs Alison Gee, Manny Mangat, Ashley Fong, Rachel Bradbury
- Julie Hiser - nurse educator