ENDOMETRIOSIS

Strategies for pain management and infertility

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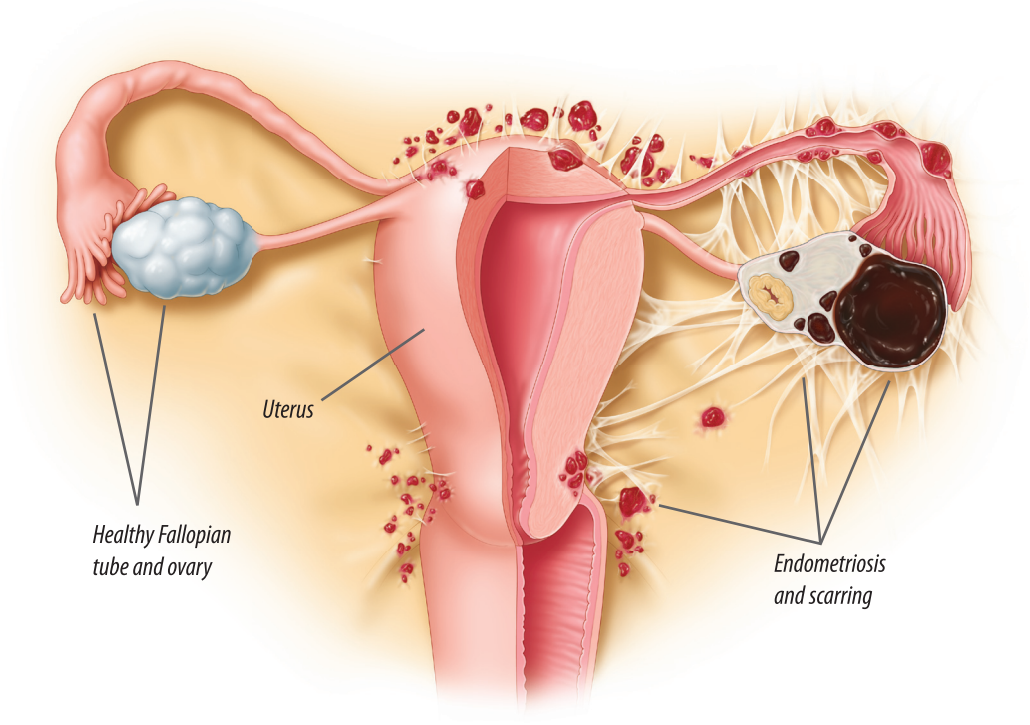
THE SOCIETY OF
OBSTETRICIANS AND
GYNAECOLOGISTS
OF CANADA

What is endometriosis?

Endometriosis is the growth of tissue, similar to the kind that lines a woman's uterus, elsewhere in her body. This misplaced tissue responds to the menstrual cycle in the same way that the tissue lining the uterus does: each month the tissue builds up, breaks down and sheds. Menstrual blood from the uterus flows out of the body through the vagina; however, the blood and tissue from endometriosis has no way of leaving the body. This results in inflammation and sometimes scarring (adhesions), both of which can cause the painful symptoms of endometriosis and may contribute to difficulty getting pregnant.



Endometriosis is a complex disease that can be challenging to diagnose and treat. Many symptoms – severe, painful menstrual cramps, painful intercourse, and gastrointestinal upsets such as diarrhea, constipation, and nausea – are similar to those for a wide variety of other conditions.

FACT:

Endometriosis affects up to…

1 in 10 women of reproductive age

5 in 10 women who are experiencing infertility*

5 in 10 women with chronic pelvic pain*

Heritability studies show that endometriosis is 3 to 10 times greater **among first-degree relatives** of women with the disease.

Women with **abnormal reproductive tracts** are at increased risk for endometriosis.

Having no previous pregnancies, sub-fertility and prolonged intervals since pregnancy are all associated with an **increased risk of endometriosis**.

*statistics based on women who undergo laparoscopic assessment of infertility and pelvic pain

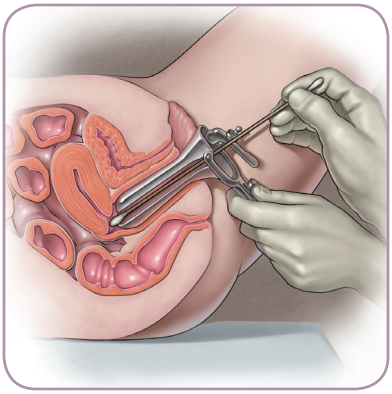
What type of endometriosis patient are you?

The *symptoms* you experience will depend on where your endometrial growth is occurring and will be different for everyone.

- *Severe menstrual cramps*
  They are more severe than normal menstrual cramps and may begin earlier in the menstrual cycle and last longer.
- *Painful intercourse*
  Pain which is felt deep in the abdomen and/or pelvis during or following sex.
- *Painful urination or bowel movements*
  This may be experienced during menstruation or, in severe cases, pain may be felt even between periods.
- *Lower back or abdominal pain*
- *Chronic pelvic pain*
  Abdominal and pelvic pain that is not associated with menstrual cycles, but which occurs on a daily basis and which has lasted for six months or longer.
- *Other gastrointestinal upsets such as diarrhea, constipation and nausea*
  These symptoms are usually experienced during menstruation.

For some women, the pain associated with endometriosis can lead to fatigue, feelings of depression and isolation, problems with sex and relationships, and difficulty fulfilling work and social commitments.

Diagnosis



The first steps involve *evaluating your pain* and *examining* your abdominal area or performing a *pelvic exam* to locate where the pain comes from. You may also need an *ultrasound* to rule out other causes for your symptoms, and in some cases you may require a *laparoscopy* – but because this is a surgical procedure, it is only used when other diagnosis and treatment options are not effective.

Endometriosis and infertility

If you have endometriosis, it may be more difficult to become pregnant because scar tissue can block your Fallopian tubes, making it challenging for egg and sperm to meet. Endometriosis can also lead to an increased risk of ectopic pregnancy, when the fertilized egg implants and grows inside of the Fallopian tube.

The good news is that many women with endometriosis are able to conceive; however, for some it may take longer.

Are you...

An adolescent with chronic pelvic pain? *Go to page 3*

An adult with no immediate plans for pregnancy? *Go to page 4*

An adult with chronic pelvic pain and infertility? *Go to page 5*

An adult with deeply infiltrating endometriosis? *Go to page 6*

A perimenopausal woman with endometriosis? *Go to page 7*

Management of pain for adolescent patients with suspected endometriosis

Are you an adolescent with chronic pelvic pain?

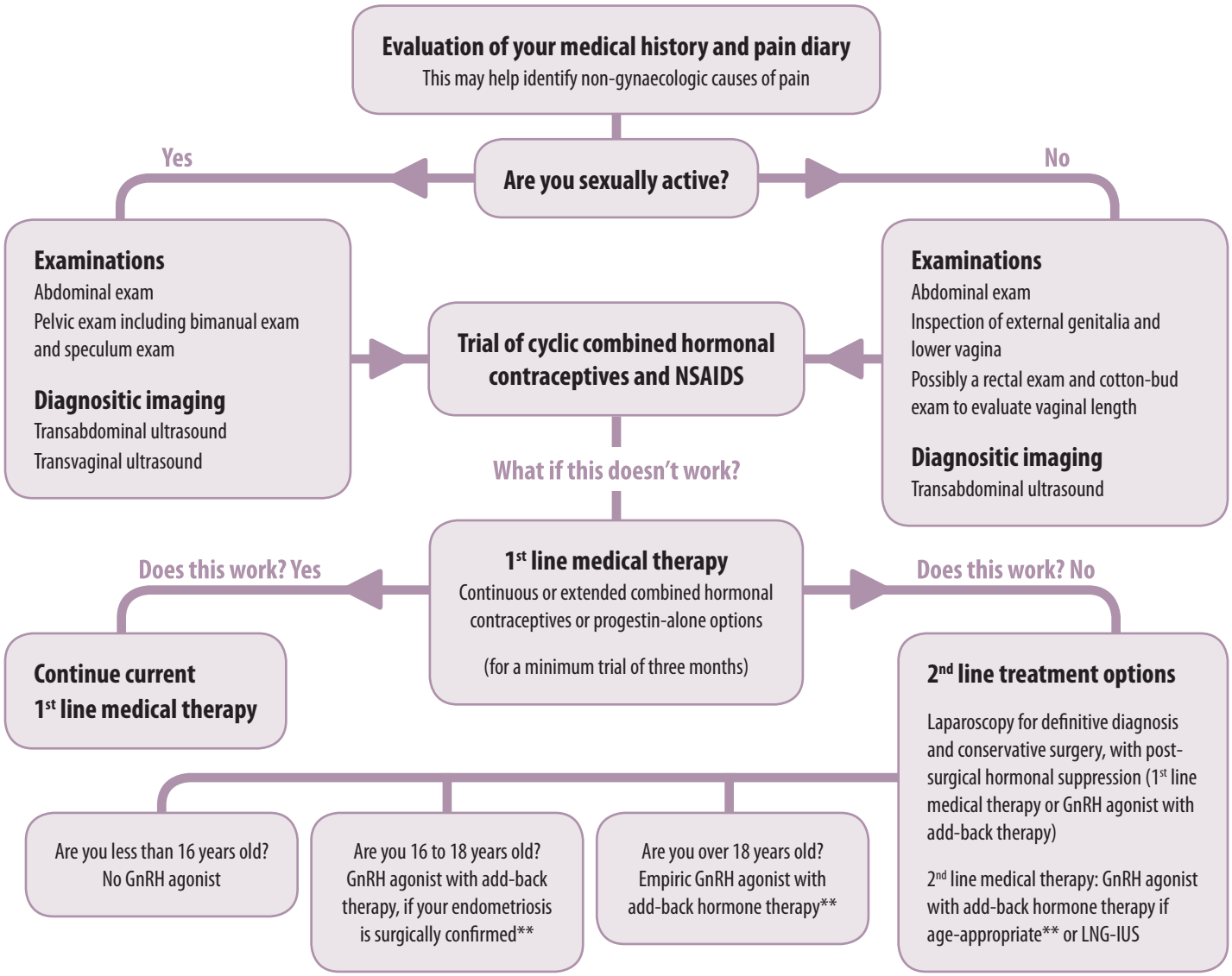
- You are 18 years of age or younger
- You experience severe cramping several days per month
- The pain is primarily in your lower abdomen, though you may experience some aching elsewhere
- There may be nausea associated with your pain
- Occasionally, your symptoms may cause you to miss school or social events

Counselling tips

- It may take a few months to experience results using combined hormonal contraceptives
- Consider NSAIDs for pain relief
- Combined hormonal contraceptives may provide pain relief but are not a cure
- You should remember to take your pills every day, on time
- You will likely need to return in about three months for a follow-up evaluation

Did you know?

The Endometriosis Association registry reports that 38 per cent of women with endometriosis had symptoms starting before the age of 15.



**A GnRH agonist with add-back therapy is not always appropriate for adolescents, because it may negatively affect bone mineral density. You may need to consider routine bone mineral density evaluation.

Management of pain for a woman with no immediate plans for pregnancy

Are you a woman with no immediate plans for pregnancy?

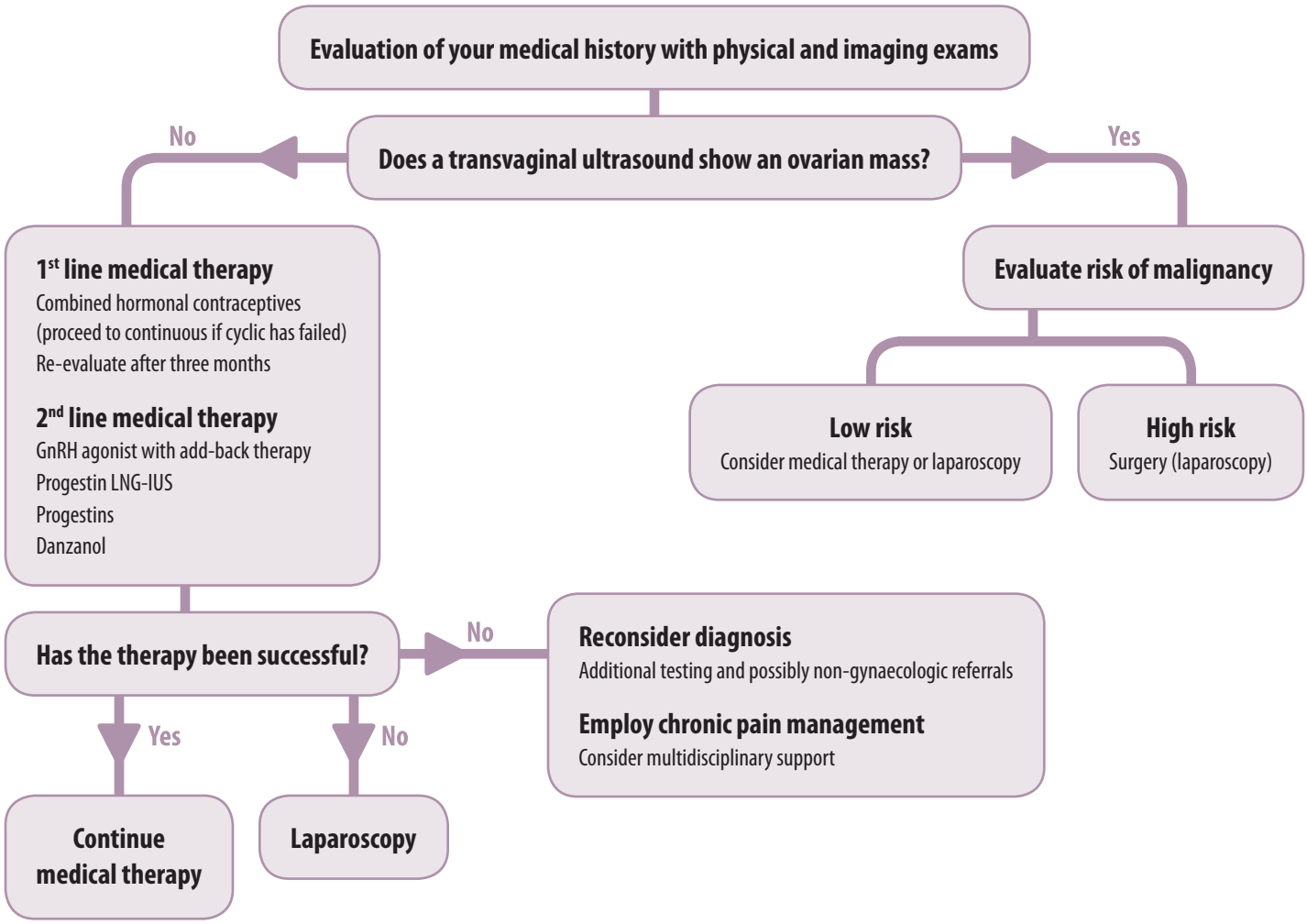
- You are not planning a pregnancy in the next three to four years
- You may eventually want to have your first (or another) child
- You may have experienced endometriosis before, but it has 'come back' or is getting worse
- You experience incapacitating lower pelvic pain
- You may have had severe dysmenorrhea since you started menstruating
- You may have been treated before with cyclic or continuous combined hormonal contraceptives and NSAIDs

Clinical tips

- Physical examination should include an assessment to determine the position, size and mobility of the uterus: a fixed, retroverted uterus may suggest severe adhesive disease
- Adnexal masses discovered on physical examination may suggest ovarian endometriomas
- Consider a retrovaginal exam to palpate the uterosacral ligaments and rectovaginal septum, which may reveal tender nodules suggestive of deeply infiltrating endometriosis
- Examination during menses may improve the chances of detecting deeply infiltrating nodules and the assessment of pain
- Ultrasonography allows detection of ovarian cysts and other pelvic disorders such as uterine fibroids

What about diagnostic laparoscopy?

This is not required in all patients before treatment; although it is considered a minimally invasive procedure, it still carries the risks of surgery and is usually only considered if medical therapy has failed.



Treatment for a woman with chronic pelvic pain and infertility

Are you a woman with chronic pelvic pain and infertility?

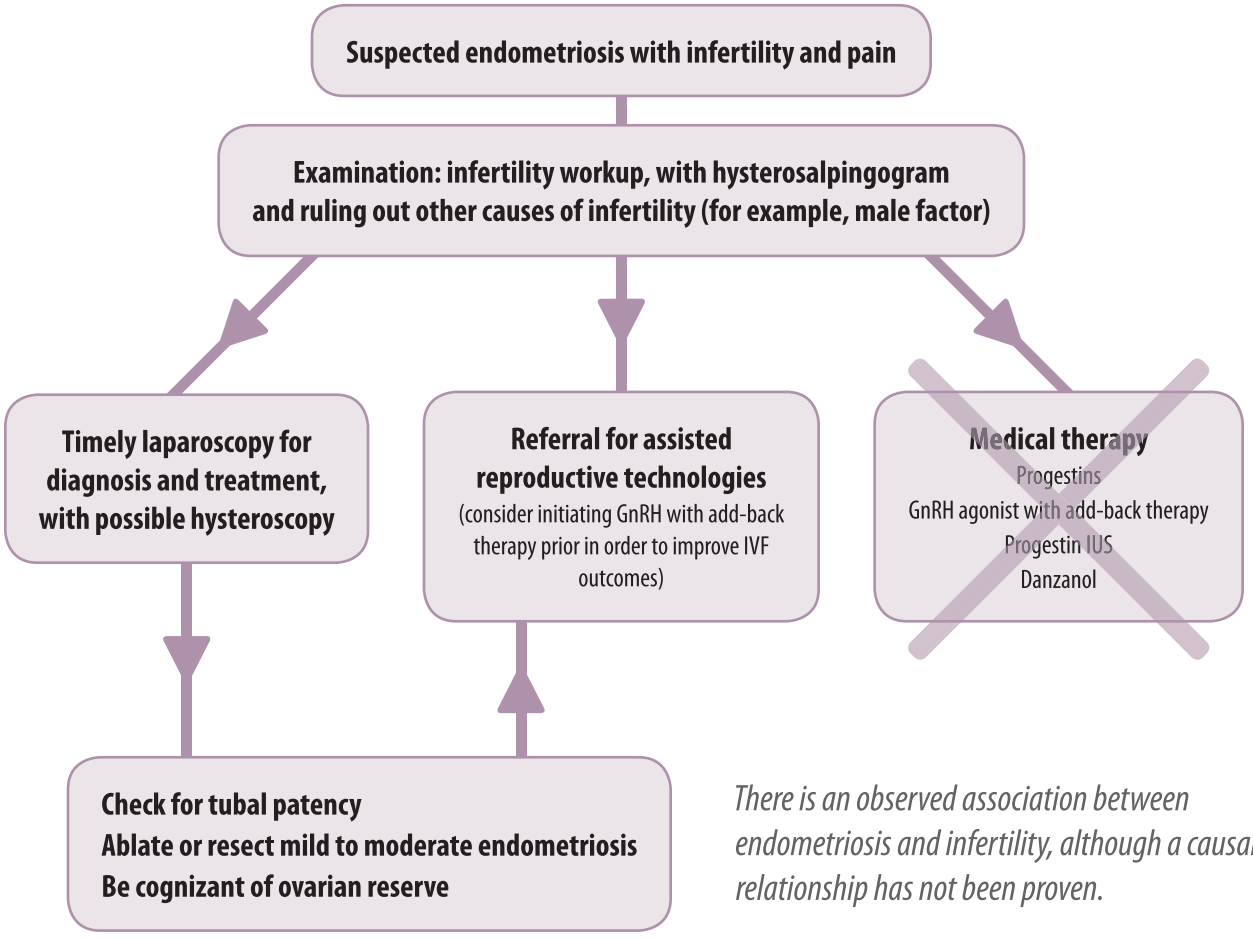
- You are experiencing severe pelvic pain and infertility
- Your pain may have begun or gotten worse after discontinuing combined hormonal contraceptives
- You have been attempting to conceive for 12 months or more
- You are otherwise healthy
- Your partner has no fertility issues which may account for the infertility

Clinical tips

- Several studies suggest that women with chronic or advanced endometriosis will benefit from long-term treatment with a GnRH agonist before an IVF cycle.
- Treatment of infertility caused by endometriosis consists of either surgical removal of endometriotic tissue with adhesiolysis in order to restore normal anatomy, or assisted reproductive technology.

Laparoscopy is indicated when...

- *There is deep dyspareunia, severe dysmenorrhea, dyschezia, or chronic pelvic pain that is severe enough to cause distress*
- *When tender nodules are palpated in the utersosacral ligaments*
- *When there is a persistent adnexal mass*



There is an observed association between endometriosis and infertility, although a causal relationship has not been proven.

Are you a woman with deeply infiltrating endometriosis?

- You experience persistent, disabling and severe pelvic pain
- The pain is often in your lower back and abdomen
- You experience severe dyspareunia
- You do not wish to get pregnant immediately but may eventually wish to start a family

Clinical tips

- When endometriosis is thought to have a deeply invasive component, ancillary tests such as colonoscopy, cystoscopy, rectal ultrasonography and MRI may be required.
- Deeply infiltrating endometriosis refers to lesions that penetrate 5 mm or more; they are often multifocal and deeper than is appreciated by visualization alone
- With ovarian endometriomas, it is important to consider your desire for fertility in order to determine the level of intervention required to preserve the ovaries and their function.

Surgical management of endometriosis is indicated for…

Patients with pelvic pain who…

- *Do not respond to, decline or have contraindications for medical therapy*
- *Have an acute adnexal event*
- *Have severe invasive disease involving the bowel, bladder, ureters or pelvic nerves*

Patients who have or are suspected to have an ovarian endometrioma where ...

- *The uncertainty of the diagnosis affects management*
- *There is infertility and associated factors (i.e. pain or a pelvic mass)*

Conservative or definitive surgery?

- *Conservative surgical management has the goal of restoring normal anatomy and relieving pain*
- *Definitive surgery involves bilateral oophorectomy to induce menopause and may include removal of the uterus and Fallopian tubes, and ideally excision of all visible endometriotic nodules and lesions*

Are you experiencing deeply infiltrating endometriosis which has been non-responsive to 2nd line medical therapy?

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Preoperative considerations:
Assessment of other organ structures, notably bowel and ureter

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Special considerations:
- Surgery will often require a multidisciplinary approach, benefitting from the experience of several specialists
- Laparoscopy is the preferred surgical approach

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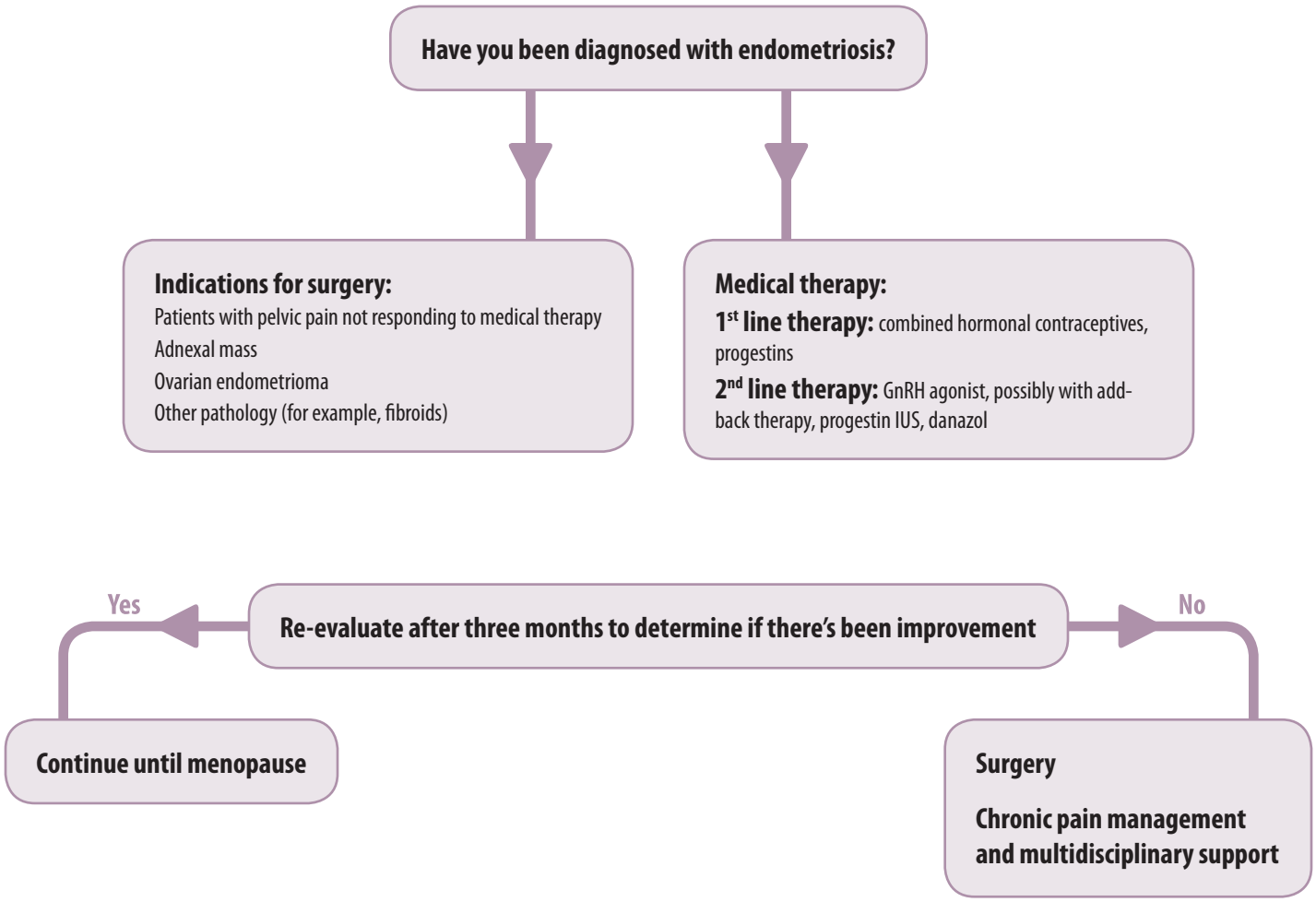
Laparoscopy or surgery for complete excision

Are you a perimenopausal woman with endometriosis?

- You have reached perimenopause or menopause
- You have moderate cyclic pelvic pain
- You may have a history of endometriosis



There are treatment options for endometriosis that can improve *your quality of life*: reducing your pain, shrinking or slowing the endometrial growth, preserving or restoring your *fertility*, and preventing or delaying recurrence of the disease.

Lifestyle changes

Changes to your exercise and relaxation routines, and maintaining a balanced diet to stay healthy, may help ease the symptoms of endometriosis.

Pain management medication

The therapies used to treat endometriosis may take at least one menstrual cycle to become effective, so you may need to use pain relief medication until the long-term treatment begins to work. Over-the-counter anti-inflammatory medication is often effective in treating the pain caused by endometriosis. These medications are inexpensive and non-addictive.

Cyclic or continuous combined hormonal contraceptive therapy

This therapy reduces the pain caused by endometriosis by suppressing menstruation and inhibiting the growth of endometriosis.

Taking combined hormonal contraception without the usual seven-day break each month will prevent you from menstruating, and may be a useful option for women who experience their worst endometriosis symptoms during their period.

Progestin therapy

This can be administered in a pill form or as an injection. Progestin therapy helps to lessen the effects of the estrogen that stimulates endometriotic growth in your body.

One drawback of injection-based progestin therapy is that there can be a delay between when therapy is stopped and when ovulation resumes. For this reason, this is not an effective option if you are planning to conceive in the near future.

Suppression of ovarian function: a GnRH agonist and add-back therapy

If combined hormonal contraceptives aren't effective in treating your endometriosis, you may be prescribed a drug known as a GnRH agonist, which prevents your ovaries from functioning - the same process that happens during menopause. Because this type of medication can cause symptoms similar to menopause, "add-back therapy" will also be prescribed to add estrogen back into your body. This helps to prevent loss of bone mineral density and relieve the menopause-like symptoms, such as hot flashes.

Intrauterine system (IUS)

If combined hormonal contraception or progestin therapy isn't effective in treating your symptoms, your health-care professional may recommend trying an intrauterine system (IUS). This is a common method of birth control, consisting of a T-shaped device which is inserted into your uterus and releases levonorgestrel, a type of progestin which counteracts the effects of estrogen in the same way that other progestin therapies do. The IUS can provide continuous therapy for five years or until it is removed by a health-care professional.

Surgery

If other treatments are not effective in managing your pain or improving your quality of life, laparoscopy can be performed to remove endometrial growths or legions and scarring. However, this doesn't mean that the endometrial growth has stopped; endometrial growths return within five years in 20 to 40 per cent of women.

A hysterectomy (removal of the uterus) may be another option for some women; unfortunately, the pain may still return if the endometriosis has already spread to other organs. The only way to permanently stop endometriosis is to prevent ovarian function through the removal of ovaries (however, scar tissue may remain).

Alternative therapies

Some women find that alternative therapies, such as physiotherapy, massage and acupuncture, are effective ways of managing pain. There is no evidence from randomized control trials to support these treatments for endometriosis, but you shouldn't necessarily rule them out if you think they are beneficial to your overall pain management and your quality of life.

Did you know?

Because endometriosis is a chronic, relapsing disorder, clinicians should develop a long-term plan of management with each patient that is dependent on her symptoms and goals for fertility and quality of life.

Other patient resources from the Society of Obstetricians and Gynaecologists of Canada

Public education website: **endometriosisinfo.ca**

Patient education brochure: *Endometriosis*, available at **www.sogc.org**

Patient education brochure: *Endometriosis treatment strategies*, available at **www.sogc.org**

Clinical practice guideline: *Endometriosis: Diagnosis and Treatment*, available at **www.sogc.org**

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ENDOMETRIOSIS
TREATMENT STRATEGIES

THE SOCIETY OF OBSTETRICIANS AND GYNAECOLOGISTS OF CANADA
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The right solution for you will depend on your age, how your symptoms affect your quality of life, your desire to have children and the extent of endometrial growth.

If you have endometriosis, there are treatment options that can improve your quality of life: reducing your pain, shrinking or slowing the endometrial growth, preserving or restoring your fertility, and preventing or delaying recurrence of the disease.

What is endometriosis?

Endometriosis is a common and potentially debilitating condition associated with chronic pelvic pain and sometimes infertility. It is caused by the growth of tissue, similar to the kind that lines the uterus every month, elsewhere in your abdomen. This tissue responds to your menstrual cycle each month; when the tissue breaks down, it can lead to inflammation, causing pain and scarring.

The first step: evaluation

The first step in treating endometriosis is usually a thorough medical evaluation, starting with collecting your **medical history**, including your symptoms and your gynaecologic health history. Your health-care professional will also perform a **physical examination**, which will include a pelvic exam and possibly a rectal-vaginal exam. You may also need **imaging tests** such as an ultrasound, which can detect ovarian cysts and other pelvic disorders that might be causing your symptoms.

These examinations will allow your health-care professional to rule out non-gynaecological sources for your symptoms and determine important characteristics of your endometriosis, so that he or she can recommend appropriate treatment. For some women, **further diagnostic tests** (such as a laparoscopy) might be necessary.

The next step: 1st line medical therapy

Combined hormonal contraception (such as the "pill", the "patch" or the "ring") is one of the most widely used treatments for endometriosis, and is usually the first therapy a woman will be asked to try. It reduces the pain caused by endometriosis by suppressing menstruation and inhibiting the growth of endometriosis.

Combined hormonal contraception can be prescribed without the usual seven-day break each month – this is referred to as 'continuous' use, rather than 'cyclic' use. This method prevents you from menstruating, and may be a useful option for women who experience their worst endometriosis symptoms during their period.

After you have been on combined hormonal contraception for at least three months, you may want to follow up with your health-care professional to discuss how you are adjusting to the treatment and whether your symptoms are improving.

If you are still experiencing pain: 2nd line medical therapy

Progestin therapy

Progestin therapy (such as "the shot" or a progestin-releasing intrauterine system) is widely used for birth control and has also been studied for the relief of endometriosis pain. It can be administered in a pill form, as an injection or as a small device inserted into your uterus. Progestin therapy helps to lessen the effects of the estrogen that stimulates endometriotic growth in your body.

One drawback of injection-based progestin therapy is that there can be a delay between when therapy is stopped and when ovulation resumes. For this reason, this is not an effective option if you are planning to conceive in the near future.

Ovarian suppression

If combined hormonal contraception or progestin therapy doesn't work for you, your health-care professional may recommend a *GnRH agonist* (gonadotropin-releasing hormone agonist). This hormone, given by injection or nasal spray, will cause you to stop menstruating.

The side effects of this type of medication tend to be similar to symptoms you might experience in menopause and can be relieved with add-back therapy, which is routinely given when a GnRH agonist is prescribed. Add-back therapy involves taking a low dose of estrogen and progestin to help deal with the menopause-like side effects, while maintaining the pain relief.

Can surgery help? Laparoscopy

Laparoscopy is the most common type of conservative surgery used to diagnose and treat endometriosis. Laparoscopy can be used to remove endometriotic growth or scarring and interrupt the nerve pathways that transmit pain. However, as with any invasive procedure, there are risks involved; for this reason, laparoscopy is not generally considered unless other pain management methods have been unsuccessful.

If you are an adolescent

If your health-care professional has diagnosed you with endometriosis after taking your medical history and doing physical examinations and imaging tests, you will likely be prescribed cyclic combined hormonal contraception. If this doesn't work after a three-month trial, you may need to try continuous combined hormonal contraception or progestin options. If these therapies are also unsuccessful, you may need to have a laparoscopy to confirm the diagnosis of endometriosis, and be prescribed ovarian suppression drugs, such as a GnRH agonist (depending on your age, you may also be prescribed add-back therapy).

What if I'm trying to conceive, or will be soon?

In this case, combined hormonal contraceptives may not be an appropriate therapy for your pain. In addition to taking your medical history and performing physical examinations and imaging tests, your health-care professional may also do extra testing to evaluate your fertility.

If you've been having trouble conceiving, you may be referred for a laparoscopy, as the removal of endometriotic growth or scarring may help you to conceive. You may also be referred for assisted reproductive therapy; in vitro fertilization can also improve your chances of pregnancy.

Endometriosis and infertility

If you have endometriosis, it may be more difficult to become pregnant because scar tissue can block your Fallopian tubes, making it challenging for egg and sperm to meet. Endometriosis can also lead to an increased risk of ectopic pregnancy. But, the good news is that many women with endometriosis are able to conceive — it may just take longer. If you have endometriosis, are under 35, and have not conceived after having regular, unprotected sex for a year, you may be experiencing infertility problems associated with endometriosis.

What if I have deeply infiltrating endometriosis?

If you have endometriosis which has been unresponsive to first- and second-line medical therapies, you may need to undergo laparoscopic surgery for complete removal of endometrial growths.

What if I'm perimenopausal?

If other first- and second-line medical therapies have failed to relieve your pain, you may be a candidate for laparoscopy or **definitive surgery**, which involves the removal of the ovaries (causing menopause), and may also include removal of the uterus and Fallopian tubes. As well, all visible endometriotic growth is usually removed during this type of surgery.

Alternative treatments

Many women with endometriosis report that nutritional and complementary therapies such as acupuncture, traditional Chinese medicine, herbal treatments and homeopathy improve pain symptoms. There is no evidence from randomized control trials to support these treatments for endometriosis, but you shouldn't necessarily rule them out if you think they are beneficial to your overall pain management and your quality of life. Speak with your health-care professional if you are considering incorporating alternative treatments into your lifestyle.

Pain relief

The therapies used to treat endometriosis may take at least one menstrual cycle to become effective. For this reason, your health-care professional may recommend pain relief medication for use until the long-term treatment begins to work. Over-the-counter anti-inflammatory medication is often effective in treating the pain caused by endometriosis. These medications are inexpensive and non-addictive.

Tip: If you are taking an NSAID such as Advil, Motrin, Aleve or Naproxen and aren't getting much pain relief, you may want to try again. Unlike other pain medications, NSAIDs do not block existing pain. Instead, they block the production of prostaglandins, which produce the pain. You must take the medication before the prostaglandins are produced — start taking the medication before you expect the pain to start — and you must keep on taking it every six hours around the clock to ensure it works effectively.