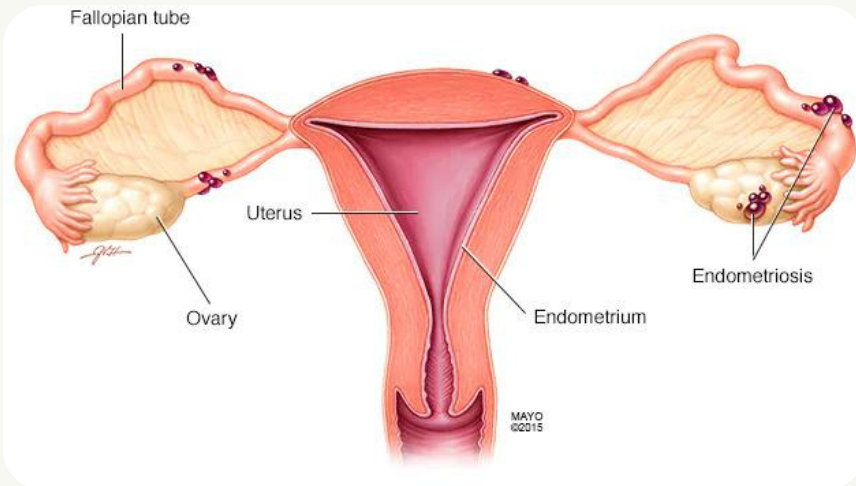


ENDOMETRIOSIS

What is endometriosis?

'Endometriosis' occurs when endometrial cells grow outside of the uterus (the 'womb').

Endometriosis is common affecting around 1 in 10 women.



- Endometrial cells line the uterus. Each month, these cells grow under the influence of oestrogen (a hormone produced by the ovaries)
- If pregnancy does not occur, this lining is shed resulting in a period.
- What causes endometrial cells to grow outside of the uterus is not fully understood. There are various theories but it is clear that endometriosis is hormonally dependent on oestrogen for ongoing growth.



What are the symptoms?

Endometriosis can be asymptomatic (meaning no symptoms) or may cause issues with pelvic pain or infertility. Symptoms vary greatly and do not always correlate with disease severity.

Common symptoms include;

- Painful periods or pain with intercourse
- Difficulty conceiving (sub-fertility or infertility)



How is it diagnosed?

Endometriosis may be suspected based off your symptoms and examination findings. Unfortunately there is no imaging that can reliably detect endometriosis. If you think you may have endometriosis you should see your doctor today.

Laparoscopic ('key hole') surgery is the only way to confirm endometriosis by directly visualising the disease and taking biopsies. Surgery can be both diagnostic and therapeutic. However, without medical treatment endometriosis can and likely will reoccur following surgery (often within only 2 years!)



Pelvic pain affects 1 in 5 women at some stage in their life.
Yet it's a condition that is rarely discussed and often undertreated.

Endometriosis is a chronic recurring condition.

..... Treatments are not curative. Rather the goal is to manage symptoms, suppress disease and prevent recurrence.

What are the treatment options?

Treatment advice and options are specific to the patient and their specific symptoms.

- Some women are asymptomatic and do not require any treatment.
- Others have significant symptoms and there are many treatment options available to improve their quality of life!

Pain Relief:

- Many different therapies are available for managing pelvic pain.
- Anti-inflammatories such as Ibuprofen are commonly used.
 - These work by blocking the inflammatory pathways caused by endometriosis!
- Please discuss pain relief options with your doctor and try to avoid addictive medications such as opioids.

Hormonal medications:

Hormonal medications are designed to either;

- Suppress ovarian oestrogen production (as oestrogen promotes the growth of endometrial cells)
- AND/ OR contain progestins (as progestins shrink and break down endometrial cells)

Hormonal options include;

- The combined oral contraceptive pill
- Progesterone only treatments (such as the Mirena IUD)
- GnRH (gonadotropin releasing hormone) agonists
 - Strong medications that induce a menopause-like state. Usually used only for up to 6 months
 - Add-back therapy (e.g. Tibolone) is used to avoid the unwanted symptoms of menopause!

Surgery:

Laparoscopy can be both diagnostic and therapeutic for endometriosis.

The extent of surgery (and the risks) will be dependent on the severity of your disease.

Surgery for endometriosis usually involves;

- Keyhole surgery - two to four 2-5mm laparoscopic port sites.
- Exploring your pelvis to look for and diagnose endometriosis
 - And to exclude other causes of your symptoms
- IF endometriosis is present (and it is safe to do so):
 - The surgeon will burn or excise the areas of endometriosis.
- In most cases, you will go home the same day of your surgery.

- It is important to understand that surgical treatment of endometriosis is not curative.
- Without additional treatment, recurrent rates are high!
- Post-surgery hormonal treatment (the pill, Mirena or GnRH agonists) are advised to suppress disease and prevent recurrence!
- Repeat surgeries are not always beneficial and carry the risks of scarring and worsening pelvic pain.



Natural and Complimentary Therapies

Unfortunately there is limited evidence for the benefit of any complimentary therapies.

Some women may find symptomatic relief with treatments such as;

- Acupuncture, transcutaneous electrical nerve stimulation (TENS), homeopathy, reflexology and herbal treatments.

You should always consult with your doctor prior to starting any complimentary or natural therapies to ensure it is safe to do so.

Endometriosis and Infertility

It is estimated that up to 50% of women presenting with impaired fertility have endometriosis.

Endometriosis can affect fertility rates through a number of ways:

- By creating a pro-inflammatory environment that is hostile to egg development, ovulation, fertilisation and embryo implantation.
- Anatomical distortion leading to blocked tubes or trapped ovaries.
- Endometriomas (ovarian cysts) that reduce your ovarian reserve or egg count.

At least half of women with endometriosis will have some difficulty with fertility. Thankfully, treatment of endometriosis significantly improves pregnancy rates with both spontaneous conception, and assisted reproduction (e.g. ovulation induction or IVF).

If you have endometriosis and are struggling to conceive, it is advised that you seek a fertility specialist for ongoing counselling and management.



For more information and support:

See your local healthcare provider or visit one of the following websites.

Endometriosis and Infertility

https://www.fertilitynz.org.nz/files/4314/8520/6268/0117_Endometriosis_web.pdf

Endometriosis Australia:

<https://www.endometriosisaustralia.org/>

Jean Hailes for Women's Health (Endometriosis):

<https://www.jeanhailes.org.au/health-a-z/endometriosis>

Health Direct Australia (Endometriosis):

<https://www.healthdirect.gov.au/endometriosis>



Images thanks to:

First page (top left image) - Mayo Clinic (Endometriosis)

Mayo Clinic Staff. 2019. From 'Endometriosis', Illustration of female pelvic organs. Mayo Foundation for Medical Education and Research. Accessed 14 June 2021. <<https://www.mayoclinic.org/diseases-conditions/endometriosis/symptoms-causes/syc-20354656>>

All other images and artwork thanks to Canva

Canva. 2021. Accessed 15 June 2021. <<https://www.canva.com/>>

References:

1. Schenken RS. Endometriosis: Pathogenesis, clinical features, and diagnosis. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA. (Accessed on June 05, 2021)
2. Schenken RS. Endometriosis: Treatment of pelvic pain. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA. (Accessed on June 05, 2021)
3. Brown J, Farquhar C. Endometriosis: an overview of Cochrane Reviews. Cochrane Database Syst Rev. 2014 Mar 10;2014(3):CD009590. doi: 10.1002/14651858.CD009590.pub2. PMID: 24610050; PMCID: PMC6984415.
4. Bafort C, Beebejaun Y, Tomassetti C, Bosteels J, Duffy JM. Laparoscopic surgery for endometriosis. Cochrane Database Syst Rev. 2020 Oct 23;10:CD011031. doi: 10.1002/14651858.CD011031.pub3. PMID: 33095458.
5. Kuznetsov L, Dworzynski K, Davies M, Overton C; Guideline Committee. Diagnosis and management of endometriosis: summary of NICE guidance. BMJ. 2017 Sep 6;358:j3935. doi: 10.1136/bmj.j3935. Erratum in: BMJ. 2017 Sep 11;358:j4227. PMID: 28877898.
6. Dunselman GA, Vermeulen N, Becker C, Calhaz-Jorge C, D'Hooghe T, De Bie B, Heikinheimo O, Horne AW, Kiesel L, Nap A, Prentice A, Saridogan E, Soriano D, Nelen W; European Society of Human Reproduction and Embryology. ESHRE guideline: management of women with endometriosis. Hum Reprod. 2014 Mar;29(3):400-12. doi: 10.1093/humrep/det457. Epub 2014 Jan 15. PMID: 24435778.
7. Koch J, Rowan K, Rombauts L, Yazdani A, Chapman M, Johnson N. Endometriosis and infertility - a consensus statement from ACCEPT (Australasian CREI Consensus Expert Panel on Trial evidence). Aust N Z J Obstet Gynaecol. 2012 Dec;52(6):513-22. doi: 10.1111/j.1479-828X.2012.01480.x. Epub 2012 Sep 27. PMID: 23016798.
8. Shafir AL, Farland LV, Shah DK, Harris HR, Kvaskoff M, Zondervan K, Missmer SA. Risk for and consequences of endometriosis: A critical epidemiologic review. Best Pract Res Clin Obstet Gynaecol. 2018 Aug;51:1-15. doi: 10.1016/j.bpobgyn.2018.06.001. Epub 2018 Jul 3. PMID: 30017581.
9. Macer ML, Taylor HS. Endometriosis and infertility: a review of the pathogenesis and treatment of endometriosis-associated infertility. Obstet Gynecol Clin North Am. 2012 Dec;39(4):535-49. doi: 10.1016/j.ogc.2012.10.002. PMID: 23182559; PMCID: PMC3538128.
10. Koninckx PR, Ussia A, Adamyan L, Wattiez A, Gomel V, Martin DC. Pathogenesis of endometriosis: the genetic/epigenetic theory. Fertil Steril. 2019 Feb;111(2):327-340. doi: 10.1016/j.fertnstert.2018.10.013. Epub 2018 Dec 7. PMID: 30527836.
11. Maddern J, Grundy L, Castro J, Brierley SM. Pain in Endometriosis. Front Cell Neurosci. 2020 Oct 6;14:590823. doi: 10.3389/fncel.2020.590823. PMID: 33132854; PMCID: PMC7573391.
12. Morotti M, Vincent K, Becker CM. Mechanisms of pain in endometriosis. Eur J Obstet Gynecol Reprod Biol. 2017 Feb;209:8-13. doi: 10.1016/j.ejogrb.2016.07.497. Epub 2016 Aug 3. PMID: 27522645.
13. Asante A, Taylor RN. Endometriosis: the role of neuroangiogenesis. Annu Rev Physiol. 2011;73:163-82. doi: 10.1146/annurev-physiol-012110-142158. PMID: 21054165.
14. Mowers EL, Lim CS, Skinner B, Mahnert N, Kamdar N, Morgan DM, As-Sanie S. Prevalence of Endometriosis During Abdominal or Laparoscopic Hysterectomy for Chronic Pelvic Pain. Obstet Gynecol. 2016 Jun;127(6):1045-1053. doi: 10.1097/AOG.0000000000001422. PMID: 27159755.