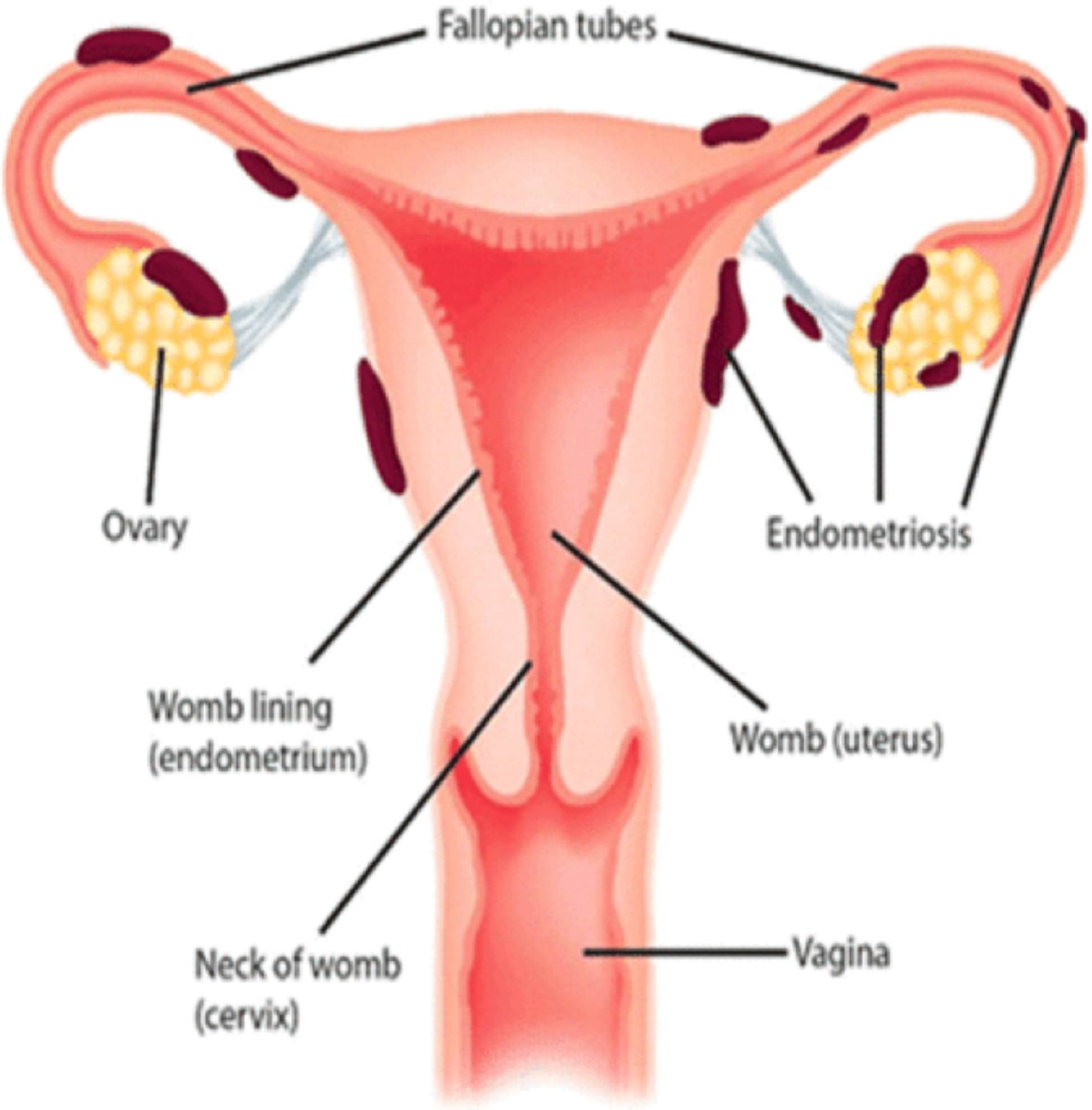
Endometriosis

What is Endometriosis?

Endometriosis is a chronic inflammatory oestrogen dependent condition where the presence of endometrial glandular tissue (womb lining) is found outside the uterus (womb).



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Endometriosis affects up to 10% of women from teenage years through to the menopause and can be debilitating for many women, presenting a significant health burden. Tissue similar to the endometrial lining of the uterus (which sheds as your period every month) finds its way into the pelvis through a number of mechanisms, sticking itself to the back of the uterus and ovaries, which are the commonest sites.

This in turn can result in ovarian cysts (often called chocolate cysts because of the dark blood as a result of bleeding into the ovary), adhesions and scarring. Women often suffer from painful, heavy periods, soreness for days after sexual intercourse and pelvic pain long before the period starts. Rarely, endometriosis can be found in distant places such as the lung, nose or on caesarean section scars.

Endometriosis is often called a disease of the modern age as it tends to affect women in their 20s and 30s, as childbearing often occurs at a later stage in women's lives nowadays and women opting for smaller families. Instead of spending most of our reproductive lives either pregnant or lactating as our previous generations did, we now have as many as 350 – 400 periods until we reach menopause.

While it means that maternal mortality is not high as before, there are more menstrual related problems such as endometriosis, fibroids, PCOS and lost days of work from painful and heavy periods.

The prevalence of endometriosis is much higher nowadays probably due to environmental factors, changes in diets, pesticides and delaying childbirth.

How common is endometriosis?

It is difficult to know the exact incidence and prevalence in the general population, as symptoms can be so wide-ranging. However, endometriosis is found more commonly in certain situations.

1 in 5 women being investigated for infertility or having a hysterectomy are found to have the condition, compared to 1 in 20 women having a sterilisation. Women with chronic abdominal or pelvic pain sometimes have the condition (1 in 6 women).

What causes endometriosis?

This is still a poorly understood condition. The aetiology is poorly understood as are the risk factors Several theories have been suggested. Retrograde menstruation (blood leaking into

the abdomen through the fallopian tubes during periods), spread through the blood or lymphatic system, metaplastic theory dissemination (change in the nature of cells into cells similar to the lining of the womb) are some of the more popular theories put forward.

It is likely that a combination of theories is the more likely answer, causing deposition of cells similar to the endometrial lining to grow and bleed with each cycle, causing scarring, adhesions and symptoms.

What are the symptoms of endometriosis?

Women may have no symptoms at all and may be first diagnosed when being investigated for some other condition or during tests to check fertility. More commonly though, women can have very painful and sometimes heavy periods, with the pain often starting several days before the onset of bleeding and lasting all the way through. Periods may start getting painful, having previously been normal.

This is called congestive or secondary dysmenorrhoea. Pelvic pain, even when not having a period can be a feature. Pain and soreness after sexual intercourse (deep dyspareunia) can sometimes make couples have less frequent sex, contributing to infertility, which in itself can be the main problem. Most women should conceive within 18 months of regular intercourse.

Women with endometriosis can take longer and should seek help earlier if they already know they have the condition. The reasons for infertility in endometriosis are complex and early treatment and management is recommended, especially as women may need to be referred sooner rather than later for assisted conception.

Women may present with ovarian cysts (called chocolate cysts, because of the dark blood inside the cyst) or a pelvic mass and sometimes, with bowel or bladder symptoms. Rarely, women may present with scar tenderness or swelling or even haemoptysis (coughing up blood) or nosebleeds.

On examination, there may be non-specific pain (tenderness) in the low abdomen or pain on internal examination. Your doctor may feel a pelvic mass or rarely see bluish/blackish deposits deep in the vagina or on a scar. The womb may not be as freely mobile as normal (Restricted mobility/fixed retroversion)

Could endometriosis be confused with any other condition?

In some women, the diagnosis may be delayed because of overlap with symptoms of conditions such as Irritable Bowel Syndrome (IBS) or Pelvic Inflammatory Disease (PID).

How is endometriosis diagnosed?

Ultrasound and nowadays an MRI scan can be useful in helping to diagnose endometriosis. Ovarian chocolate cysts (endometrioma) may be seen on a pelvic ultrasound and an MRI can sometimes pick up deposits of endometriosis. An MRI pelvic scan can also pick up some cases of adenomyosis (deep internal endometriosis within the muscle of the womb), which can cause new symptoms of painful periods in women in their forties, having completed their family.

However, a keyhole operative procedure called a Laparoscopy (see separate leaflet) is the gold standard diagnostic test for endometriosis (Grade A evidence). While this is an invasive procedure, done under a general anaesthetic, it not only confirms the diagnosis, it also allows thorough assessment of the pelvis and a biopsy can be taken to analyse the tissue. Most importantly, treatment to ovarian cysts, release of scar tissue and removing the endometriotic deposits to help with symptoms of pain can be all done at the same time by an experienced surgeon. A plan can be made regarding further management, especially regarding fertility options.

The American Fertility System for scoring the grade of endometriosis (minimal, mild, moderate or severe) is useful for fertility assessment but not so helpful in assessing pain.

A blood test (CA125) may be recommended. The level may be raised but is not specific for screening or diagnosis. However, it can be quite helpful in follow up of endometriosis, after initial treatment.

A blood test that may be able to diagnose 9 out 10 cases of endometriosis is showing some promise and is a non invasive way of diagnosing the condition. The Mitomic Endometriosis Test developed in Newcastle looks for biomarkers of endometriosis in the blood through the close examination of mutations in mitochondrial DNA. It is not available yet and is rather expensive. It will also need to be tested in a bigger study to confirm its validity.

Is there a genetic link?

It does appear that there may be a familial link, with members in the family suffering from this condition. It is not easy to get this history, as women used to have pregnancies much earlier in the past, which is thought to have a beneficial effect in preventing or delaying endometriosis, probably through the protective effect of progesterone (female hormone).

What are the available treatments for endometriosis?

This really depends on the age of the patient, the nature and severity of symptoms, fertility plans, previous treatment and location and severity of disease. A lifelong management plan is needed for many women who struggle with this distressing condition. Despite extensive research, the optimal management of endometriosis remains unclear.

There are several drugs that are all equally effective in relieving pain (grade A evidence). The limiting factor is usually the side effects of the drugs. There is usually no benefit in treating infertility with medical drugs and this only delays conception. Drugs that are commonly used include the Combined Oral Contraceptive pill, Progestogens, GnRH agonists and NSAIDs such as Ibuprofen. A specialist will help you decide the right choice for you after a thorough medical assessment.

As mentioned above, it is possible and sensible to diagnose and treat endometriosis at the same time by Laparoscopy. Laparoscopic treatment and excision of lesions of endometriosis, treatment to ovarian chocolate cysts can improve fertility, relieve pain and delay further invasive treatment. A Mirena IUS may be suggested to help with symptoms, if fertility is not an immediate priority, especially if the oral pill is not tolerated. Some women may need postoperative suppressive treatment with drugs, if fertility is not needed while others may need to have further laparoscopic treatment in the future, as there is no complete cure for this condition. In some cases of severe endometriosis involving the bowel, colorectal surgeons will need to be involved along with the gynaecologist.

If a woman’s family is complete, and other conservative treatment has failed, a hysterectomy, usually with removal of ovaries may have to be considered. Hormone replacement (HRT) if needed must be used with caution to prevent flareups but is not contraindicated.

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Can diet help with endometriosis?

There are no definite consistent dietary recommendations for prevention or treatment of endometriosis

There is however, growing evidence to suggest avoiding meat and eating a high fibre plant-based diet can help with the symptoms of endometriosis. Consumption of animal products has the potential to influence endometriosis risk through effects on steroid hormones levels.

Standard Western diets are associated with higher levels of oestradiol and lower levels of sex hormone binding globulin (SHBG)

In contrast, plant based diets tend to reduce blood oestrogen concentrations and increase SHBG concentration, effects that may be attributable to an increase in fibre intake, or the weight loss that typically results from these diet changes. Endometrial tissue can convert cholesterol to oestradiol raising concerns about dietary cholesterol and saturated fat, which are almost exclusively found in animal sources.

Adopting an anti-inflammatory whole food plant based diet (WFPB), rich in vegetables, fruits, beans and whole grains tends to improve symptoms. The higher fibre content of plant-based diets can also lower blood insulin levels. This is important due to insulin's agonistic effects for oestrogen production and endometrial cell proliferation

Studies have shown a significant reduction in the risk of developing endometriosis associated with a high intake of green vegetables and fruit and an increased risk with intake of beef or other red meat or ham.

Women having 13 or more servings per week of green vegetables had a 70% lower risk of endometriosis compared with those who ate fewer than 6 servings per week.

Those eating 14 or more servings of fruit, especially citrus fruit per week had a 20% lower risk compared with women having fewer than 6 servings per week.

In the seminal Nurses Health Study 2, that followed 96000 nurses, the authors concluded from their analysis of premenopausal US nurses that red meat consumption may be an important modifiable risk factor for endometriosis, particularly among women with endometriosis who had not reported infertility and thus were more likely to present with pain symptoms.

Organic pollutants, haem iron found in red and processed meat, inflammatory compounds in animal products by causing oxidative stress, have been implicated in the increased incidence of endometriosis in women consuming animal products.

In some studies, consumption of milk, liver, carrots, cheese, fish and whole-grain foods, as well as coffee and alcohol consumption, were not significantly related to endometriosis but with my own patients, cutting out dairy and red meat seems to be particularly helpful with symptom relief.

Some evidence suggests that greater alcohol intake may be associated with increased risk of endometriosis.

Soya, green tea, turmeric, seaweed could help as part of a healthy varied phytonutrient rich diet and promotes a healthy gut microbiome. Soya is a common food in Japan and in Southwestern Asia that contains phytoestrogens which are able to interact with oestrogen receptors, either with oestrogenic or anti-oestrogenic effect. Soya food consumption (anti-oestrogenic effect on breast) and perhaps, flaxseed powder through the same phytoestrogen mechanism can minimise the risk of endometriosis

Simple dietary changes may allow for the management of the complex condition of endometriosis and provides a compelling case for women of reproductive age to re-evaluate their dietary habits for the prevention of this distressing condition.

My advice to my patients with endometriosis is to eating as close as they possibly can to a fibre rich whole plant foods diet.

What about complementary therapies for treating endometriosis?

Acupuncture has been known to help women with the chronic pain of endometriosis. Breathing techniques, yoga, acupressure, heat packs and regular exercise can all help with pain management. (see painful periods leaflet)

A healthy diet and lifestyle is helpful, with a small number of women finding relief with dietary manipulation such as avoiding dairy products. Certain herbal products such as Starflower oil and Agnus Castus may help with premenstrual symptoms.

Can having endometriosis affect my chances of having a baby?

Unfortunately, women with moderate or severe endometriosis can have impaired chances of fertility. It is therefore important to seek appropriate help to allow for planning of fertility options. Laparoscopic treatment relieves pain in mild/moderate disease and fertility has shown to be improved by surgical treatment in minimal/mild disease. There is no role for medical treatment in endometriosis-associated infertility.

What advice would I give young women of today?

Be aware of your own body and note any changes. You need to seek medical advice, if over the counter painkillers such as Ibuprofen group of medications do not settle your period pains or your day to day life is being affected by pelvic pain.

Keep a pain and menstrual calendar so when you meet your doctor, you have all the information ready.

Periods may make endometriosis symptoms worse. If you are not trying for a pregnancy, consider effective hormonal contraception such as the Pill, Mirena coil or an implant that keeps your periods at a minimum. If taking the Pill, be aware you can take it back to back without a break. There is no medical reason to have a bleed whilst on the Pill. Your symptoms will usually improve on the Pill, unless there are large chocolate endometriotic cysts that need keyhole surgery (laparoscopy).

If there is a family history of endometriosis, you are at a higher risk of having the condition. If your symptoms tie in with endometriosis, speak to your doctor about your concerns. Sometimes, irritable bowel syndrome or pelvic inflammatory disease can cause confusion with diagnosis. An ultrasound scan and blood tests can be helpful in some cases. However, one can have a lot of pain with just a few spots of endometriosis that will not be seen on a pelvic scan.

The most definitive way of diagnosing the condition is by doing a laparoscopy, as biopsies can be taken. Ovarian cysts and scar tissue can be dealt with at the same time to help relieve pain and improve fertility chances.

In my experience, adopting an anti-inflammatory whole food plant based diet (WFPB), rich in vegetables, fruits, beans and whole grains tends to improve symptoms. Cutting out dairy

and red meat seems to be particularly helpful with symptom relief. Acupuncture, breathing techniques, yoga and regular exercise can all help with pain management.

As a gynaecologist, I firmly believe if women have access to the right information, they are in a better position to make informed choices regarding their health. Campaigns such as the Endometriosis Awareness Week are excellent ways of improving awareness.

Where can I find out more about this condition?

Women with endometriosis may find it useful to contact patient support groups. The National Endometriosis Society can be contacted via www.endometriosis-uk.org, learn more here: About endometriosis

Read my blog on Huffington
Post: https://www.huffingtonpost.co.uk/dr-nitu-bajekal/endometriosis-awareness_b_9412254.html

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