



ENDOMETRIOSIS

What is Endometriosis?

Endometriosis is a common condition that affects at least **10%** of women of reproductive age. This occurs when menstrual blood cells grow outside of the uterus. These cells reach the pelvis and abdomen in most cases by bleeding backwards through the tubes during menstruation. They can also spread via the blood stream or transformation to areas like the lungs, the nasopharynx or the peritoneal coverings of the entire pelvis as well as the vagina, the bladder, the rectum, the appendix and the large and small bowel. They can even spread to under the diaphragm or to areas like Caesarean section scars or the umbilicus. These patches of tissue only grow in patients who have a predisposition to this condition which may run in families.

These patches of menstrual lining may be black, brown, blue, white, red, clear or even yellow brown and they actually bleed with the period which causes irritation of the tissue. This results in reactive scar tissue. This process of bleeding and scarring and bleeding and scarring can lead to major destruction of the tissue around the implants which causes chronic pain, abnormal uterine bleeding, infertility and major damage to the involved organs. This condition is almost always **benign** but can act very aggressively like cancer.

There are various types of endometriosis which can be present as simple implants or patches which are usually 1-2mm in diameter, like grains of rice. They may also be present as nodules like small peas. If these patches grow in the ovary, they can develop into chocolate cysts which can grow up to 10cm in diameter. When these abnormal islands of menstrual lining grow within the uterine muscle they are often referred to as internal endometriosis or **adenomyosis**.

Endometriosis may be present as a mild condition where there are scattered patches of implants in the pelvis. Moderate endometriosis involves larger patches affecting the ovaries, tubes, uterine ligaments and the area behind the uterus and in front of the bowel called the Pouch of Douglas. Severe endometriosis involves large patches and severe scarring which often lead to severe distortion of the pelvic floor anatomy, the uterus, tubes and ovaries. On many occasions they cause what we call a frozen pelvis.

How Does Endometriosis Present?

It usually presents with **pain** affecting the pelvis or lower half of the abdominal cavity. This pain is almost always focused **around the periods**. While almost 50% of women will have normal pain during menstruation which is usually confined to the first few days, women with endometriosis have a more severe pain which is prolonged and gets worse as the period continues. This pain will often seriously affect the patient's quality of life and her work and social activities. It may result in **deep pain during intercourse** and this pain may continue after sexual activity. It can have a major impact on relationships if it is ignored.

Patients with endometriosis often have **heavy or abnormal periods**. They may have **bowel** related symptoms which can be very similar to irritable bowel syndrome, constipation or rectal pain with the periods. **Bladder** symptoms include bladder pain, symptoms like chronic cystitis or even passing blood with the periods. Unfortunately some women severe endometriosis have no symptoms at all and patients with very mild endometriosis can have intense symptoms.

Usually mild endometriosis does not affect **fertility** but about 30-40% of patients who have endometriosis have difficulty conceiving due either to the effect of the endometriosis on sperm or embryo development or even tubal function and implantation. Severe endometriosis may of course affect the fallopian tubes and the ovaries. Endometriosis typically burns out at the time of the menopause. Occasionally hormone replacement therapy may lead to a recurrence of the symptoms.

How is Endometriosis Diagnosed?

Diagnosis of endometriosis involves a careful history, physical examination and **ultrasound** imaging and occasionally **MRI** which may show chocolate cysts, adhesions or nodules. An advanced form of ultrasound called **Sonovaginography (SVG)** is now available which can show up severe endometriosis and deep implants of scar tissue which were not able to be seen at ultrasound previously. On many occasions endometriosis cannot be diagnosed until a **Laparoscopy** is performed and this is still the gold standard investigation.

Treatment Of Endometriosis.

Treatment options involve simple **pain medications** and non-steroidal anti-inflammatory drugs and **hormone treatment** to control the effects of the endometriosis on the uterus and to suppress the endometriotic implants directly. This includes various types of oral contraceptive pills, treatment with a progestogen to block the effect of oestrogen on the endometriosis, the **Mirena IUD** and other hormones which attempt to **stop the periods** altogether like, the steroid hormones Gestrinone or Danazol and Gonadotrophin Releasing Hormone Analogues (GnRH-A) which can place the patient into a temporary menopausal type state. These are not long term treatment options as the disease almost always returns.

Long term treatment for pain and fertility usually involves **surgery which is almost always minimally invasive or keyhole surgery**. This is usually day or overnight surgery but may be longer when bowel surgery is required. Often simple day surgery Laparoscopy is all that is required to treat often severe pain when the small implants simply affect the nervous supply to the pelvis.

More involved Laparoscopy is used to excise the deep implants and divide the adhesions and remove chocolate cysts from the ovary. **Advanced Laparoscopic surgery** may be required to treat implants that affect the appendix, bowel, bladder or the deep structures in the pelvic side wall. It is rare for patients to require an old fashioned open incision or Laparotomy. This surgery is also now being done **Robotically**, especially for severe disease involving deep implants. **Laparoscopic Hysterectomy** is sometimes used as a last resort for women whose child bearing is complete to help cure the endometriosis and the abnormal bleeding and pain associated with the presence of the uterus. On some occasions the ovaries need to be removed because they've been badly damaged by the endometriosis process and to eliminate the source of oestrogen which drives further disease.