

Endometriosis can be chronic and debilitating, and most medical treatments carry side effects. However, there are ways of managing symptoms and the disease.

It is important that you have a good relationship with your GP and your specialist so that you can discuss the different treatment options, and decide which one is right for you personally.

Treatment will vary from woman to woman and is often determined by the patient's priorities. For instance, if a woman is planning to try and become pregnant soon, none of the hormonal treatments are suitable as they either act as a contraceptive or halt the menstrual cycle.

The type of treatment should be decided in partners hip between the patient and the healthcare professional. The decision should depend on several factors:

- The age of the woman
- The severity of her symptoms
- The desire to have children, and when
- The severity of the disease
- Previous treatment
- The woman's priorities pain relief or fertility
- Side effects of drugs
- Risks
- Intended duration of treatment

Remember: it is *your* body. Always ask about the benefits of any treatment – either medical or surgical – and the side effects and risks of that treatment.

We do not recommend any particular treatment for endometriosis, but support patients seeking treatment options appropriate to their individual circumstances. The options are:

- Surgery
- Hormone treatment
- Pain management
- Nutrition
- Complementary therapies
- Emotional support

Some myths still exist about treatment: Pregnancy and hysterectomy are not 'cures' for endometriosis.

We recognise that some complementary therapies may be beneficial in controlling the symptoms of endometriosis. However, in the absence of evidence based on clinical trials, we cannot endorse claims that such therapies control the disease itself. It is important to follow the advice of a registered practitioner. Always consult your GP before you try a complementary therapy.

Expert Patient programmes have been shown to be beneficial for people managing long-term health conditions. <a href="https://www.expertpatients.nhs.uk">www.expertpatients.nhs.uk</a>



# **Medical therapies**

There are many different medical therapies used in the management of endometriosis. These can generally be divided into three groups:

- Analgesia pain killers and pain modifiers
- Disease reducing hormonal
- Assisted reproduction more information about this can be found in our Fertility fact-sheet

### **Analgesia**

Pain medication avoids the use of hormones so it does not prevent the growth of endometriosis; however, the management of pain is an important part of managing the condition. When taken appropriately, pain medication can be extremely effective. Either painkillers, or drugs that modify the way the body handles pain, can be used.

Some women are reluctant to use pain medication to reduce pain, and feel that they are just 'masking' this symptom. However, if the body becomes accustomed to being in pain, it could lead to neuropathic pain (when the function of a nerve/s is affected in a way that sends pain messages to the brain, even if there is no injury or tissue damage to trigger the pain). **See 'Pain Management' below for more information.** 

#### **Hormonal treatments**

These are treatments that are used to act on the endometriosis and stop its growth. They either put the woman into a pseudo-pregnancy or pseudo-menopause. (Pseudo means simulated or artificial – both states are reversed when the patient has stopped taking the hormones.)

In addition, testosterone derivatives are occasionally used to mimic the male hormonal state; these drugs are generally synthetic hormones. While not all of the hormonal drugs used to treat endometriosis are licensed as a contraceptive, they all have a contraceptive effect, so are not used if the patient is trying to become pregnant. Please note: only the oral contraceptive pill and the Mirena IUS are licensed as contraceptives, so barrier methods of contraception (e.g. condoms) should be used if using other treatments as an extra precaution.

All of the hormonal drugs carry side effects and are equally effective as treatments for endometriosis, so it's often the side effects that will dictate the choice of drug.

Drugs used that mimic pregnancy:

- Combined oral contraceptive pill
- Progestagens
- Mirena IUS ®

Pregnancy is characterised by higher levels of progesterone, thus taking progestagens (the synthetic form of progesterone) mimics the state of pregnancy. During pregnancy the endometrium is thin and also inactive.



# **Drugs that mimic menopause**

GnRH analogues

GnRH analogues are a form of the naturally occurring GnRH, which is produced in a part of the brain called the hypothalamus. GnRH analogues stop the production of the hormones FSH and LH. The ovaries switch off and temporarily stop producing eggs and the hormone oestrogen.

Male hormone drugs – testosterone derivatives:

Danazol and Gestrinone

Danazol and Gestrinone are a derivatives of the male hormone, testosterone. They lower oestrogen levels which directly switches off the growth of the endometrium (lining of the womb).

# **Drugs that mimic pregnancy**

## The Combined oral contraceptive pill (cOCP)

COCPs are tablets containing synthetic oestrogen and progestagen (female hormones). The combination of these hormones in the pill is similar to that in pregnancy, causing the menstrual cycle to stop, hence the symptoms of endometriosis being reduced.

The pill is commonly used to treat endometriosis prior to a definite diagnosis as most women who take it do not suffer from side effects. It can also be taken safely for many years. The pill can be taken continuously (without a monthly break) to avoid bleeding.

Although there is limited data on its use to treat endometriosis, there are a few studies that have assessed the pill's effectiveness. One particular review compared the use of the pill to Zoladex over a six month period. The Zoladex relieved dysmenorrhoea (painful menstruation) more effectively because it stops periods, but there were no differences between the two treatments for dypareunia (painful sex) and non-menstrual pain. Based on the side effects of each treatment it was concluded that the pill may be preferable as a treatment overall and has the advantage that it can be safely continued long-term until the menopause in fit and healthy, non-smoking women.

## **Progestagens**

The female sex hormone progesterone stops the endometrium (womb lining) from growing. If the endometrium is exposed to progesterone for a prolonged amount of time it will become thin and inactive. This is also the effect the hormone has on endometriosis.

Progestagens are synthetic progesterone hormones, which are used to recreate this effect on the endometrium and endometriosis. The dose of the drug is usually adjusted until periods stop.

There are different types of progestagens available, which may have varying side effects. They are also available in different forms – see table below:



# **Treatment Options**

	GENERIC NAME	TRADE NAME	HOW IS IT ADMINISTERED?
E SE	Norethisterone (Norethindrone)	Norethisterone® Primolut N® Utovlan® Noristerat®	Oral Oral Oral Injection
LICENSE	Medroxy-progesterone acetate	Provera®	Oral
OII	Etonogestrel	Implanon®	Implant
	Dydrogesterone	Duphaston	Oral
	Levonorgestrel	Mirena®	IUS
	Desogestrel	Cerazette®	Oral

## Common side effects of using progestagens include:

- Acne
- Depression
- Bloating
- Breakthrough bleeding
- Breast discomfort
- Fluid retention
- Headaches
- Irregular bleeding
- Moodiness
- Nausea
- Prolonged bleeding
- Vomiting
- Weight gain

Heavy irregular bleeding can usually be overcome by increasing the dose until the bleeding stops. Breakthrough bleeding can usually be overcome by taking oestrogen for seven days.



The side effects of progestagens are reversible, and usually disappear soon after completing treatment. This is with the exception of depot medroxyprogesterone acetate, with which the side effects disappear soon after the drug has been eliminated from the body. This may take weeks or months depending on the dosage used and the body's ability to metabolise the drug.

There are no known long-term side effects of progestagen treatment.

# **Drugs that mimic menopause**

## **GnRH** analogues – Gonadotrophin Releasing Hormone analogues

GnRH is hormone that we naturally produce, and GnRH analogues are a family of drugs that are chemically similar to this natural hormone.

The growth of endometrium (lining of the womb) and endometriosis is dependent upon the action of hormones, including GnRH.

GnRH analogues stop the ovaries from being stimulated and stop the woman from producing oestrogen. Therefore, the endometrium and endometriosis do not grow.

### **GnRH** analogues available:

GENERIC NAME	TRADE NAME	HOW IS IT ADMINISTERD?
Goserelin	Zoladex®	Injection
Luprorelin	Prostap SR®	Injection
Naferelin	Synarel®	Nasal spray
Triptorelin	Decapeptyl® Gonapeptyl®	Injection Implant or injection
Buserelin	Suprecure® Suprefact®	Implant or nasal spray Implant or nasal spray

## Side effects of using GnRH analogues

Low oestrogen levels created by the use of GnRH analogues can have adverse side effects. The use of these drugs is limited to six months due to the side effect of thinning of the bone; however the symptoms and loss of bone can be greatly reduced with HRT (hormone replacement therapy.

Common side effects experienced when using GnRH analogues are:

- Headaches
- Hot flushes
- Irritability
- Joint stiffness
- Night sweats



- Poorlibido
- Thinning of the bones
- Vaginal dryness

### Using addback HRT to combat symptoms

HRT is typically used to reduce the symptoms that menopausal women may experience, so as GnRH analogues create a pseudo menopausal state, it can also be used to minimise the symptoms of this treatment. This is also known as 'addback' therapy.

The use of HRT may also allow for longer length of treatment, or repeated course of treatment with GnRH analogues.

It is probable that the risks associated with HRT do not apply to women who are taking GnRH analogues or have had a hysterectomy, unless they are naturally very near the age of menopause. This is because these women are just replacing hormones that their body would be producing naturally had they not had received either of these treatments.

# Male hormone drugs - testosterone derivatives:

#### **Danazol and Gestrinone**

These are derivatives of the male hormone, testosterone. It acts on the pituitary (a hormone producing gland in the brain) and the ovaries, leading to lower oestrogen levels. This causes both the endometrium and endometriosis to stop growing, and periods will stop.

However, these drugs are rarely used nowadays as the side effects are not well tolerated.

#### Side effects of testosterone derivatives:

- Acne and oily skin
- Bloating
- Decreased breast size
- Decreased libido
- Deepened voice (may be irreversible)
- Headaches
- Hot flushes
- Increased body hair
- Menstrual spotting
- Muscle cramps
- Weight gain

# **Surgery**

As a treatment for endometriosis, surgery can be used to alleviate pain by removing the endometriosis, dividing adhesions or removing cysts. Surgery is also used to diagnose the disease and can be used to improve fertility. Please refer to our information pack on *fertility* for further information on surgery for this topic.



There are two options of surgery for treating endometriosis:

### **Conservative surgery**

This aims to remove or destroy the deposits of endometriosis and is usually done via a laparoscopy (keyhole surgery). The surgeon can either cut out the endometriosis or destroy it using heat or laser. Although surgery can provide relief from symptoms, they can recur in time. Please see our factsheet on laparoscopic surgery for endometriosis for more details.

## **Radical surgery**

This refers to a hysterectomy or oophorectomy:

**Hysterectomy** is the removal of the womb, and is performed under general anaesthetic. It can be done with or without removing the ovaries. If the ovaries are left in place then the chance of endometriosis returning is increased. Some women need a further operation to remove the ovaries at a later date.

**Oopherectomy** is the removal of the ovaries. When both ovaries are removed, the surgical procedure is called "bilateral oopherectomy," whereas the removal of only one ovary is called "unilateral oopherectomy." When both ovaries are removed, a woman will experience an instant and irreversible menopause.

These procedures may be considered for a number of reasons. The decision to have either of these procedures is a big one to make — they are irreversible, so all options should be considered. The patient and their surgeon should discuss in full, all the advantages and disadvantages of each surgery. Whether HRT will be needed or not should also be considered.

All surgery carries risks, and these should be considered prior to undergoing any procedure. For further information on surgery, please see our factsheet on laparoscopic surgery for endometriosis, and our information pack on hysterectomy.

# Pain Management (also see 'Analgesia' in the Medical Therapy section above)

Pain is experienced by the stimulation of pain nerves. There are two types of pain that women with endometriosis may experience; acute pain and chronic pain.

**Acute pain** refers to pain that results from an injury or diseased tissue. When the injury has finished healing, the correlating pain will subside because the pain nerves stop being stimulated. For example, pain associated with the release of an egg from the ovary would be acute pain.

**Chronic pain** is when signals are sent along the pain nerves even from normal tissue and the central nervous system comes to expect these signals. Because the body is so used to feeling pain, it continues to do so, even if there is no underlying specific injury. This therefore makes chronic pain harder to treat.

The most effective drugs for acute pain are **simple painkillers such as paracetamol or ibuprofen**. The modern advice is to take your painkillers regularly 'staying ahead of the pain'. Paracetamol can be taken in combination with ibuprofen and work together. When taken regularly, these can work very well. Then there are **combination painkillers**, **such as cocodamol** (codeine and paracetamol). **Opiate based drugs** such as **codeine and tramadol** can also be used but they have a sedative effect and can leave the user drowsy. They can also cause constipation which can make the endo pain worse.



For chronic pain, painkillers used to treat acute pain may not be very effective; however, someone with chronic pain may still experience acute pain, so these pain killers may still be needed for that purpose.

Antidepressants – mainly Amitriptyline – can be used for chronic pain, in a lower dose than for the treatment of depression. They have been found to have an effect on the nervous system and the way the body manages pain. The pain messages travel through the body's central nervous system, but these drugs can help to stop those messages from reaching the brain.

Other drugs used include **anti-epileptic drugs** (gabapentin and pregabalin), which work on the neurons to reduce pain signals.

## Other treatments for pain

**Transcutaneous Electrical Nerve Stimulator (TENS) machines** are small, unobtrusive machines with electrodes that attach to the skin and send electrical pulses into the body. The electrical pulses are thought to work by either blocking the pain messages as they travel through the nerves or by helping the body produce endorphins which are natural pain-fighters. Some TENS machines can be clipped to a belt. Check with your GP before using a TENS machine as they are not suitable for those who have a heart condition.

**Physiotherapy.** Physiotherapists can develop a programme of exercise and relaxation techniques designed to help strengthen pelvic floor muscles, reduce pain, and manage stress and anxiety. After surgery, rehabilitation in the form of gentle exercises, yoga, or Pilates can help the body get back into shape by strengthening compromised abdominal and back muscles.

**Superior hypogastric block.** A superior hypogastric block is an injection of local anaesthetic and steroid around the sympathetic nerves which supply the organs of the pelvis. These nerves are located on either side of the spine in the lower abdomen. This is to stop the patient feeling pain in the pelvic area.

**Pain clinics** take a holistic approach to the patient. Treating pain usually involves a team approach to manage not only the pain itself, but also factors such as anxiety, depression and quality of sleep —all of which can affect how we feel pain. A comprehensive pain treatment plan may include medications, injections, counselling, exercise programmes and other treatments.

**Expert Patients Programme (EEP)**. These courses are designed to teach patients how to adapt to living with a chronic condition. They will help you gain a better understanding of your condition, the impact it has on your life and provide support and confidence to help take control of your health. Course topics include dealing with pain and extreme tiredness, coping with feelings of depression, relaxation techniques and exercise, healthy eating, communicating with family, friends and health professionals, and planning for the future.

**Acupuncture** may be beneficial for the treatment of pain. An acupuncturist inserts needles into certain points on your body to stimulate nerve endings and release endorphins (that have pain relieving qualities). Acupuncture also aims to break up 'stuck' blood, which would reduce the pain.

Also see **complementary therapies** below as some of these may be used in the treatment of pain.



**Surgery** can be used to alleviate pain by removing endometriosis, dividing adhesions or removing cysts. A hysterectomy could also relieve painful symptoms if it is successful – please see our hysterectomy information pack for more details.

With laparoscopic surgery, different rates are reported, but studies suggest a 62.5% improvement or resolution of pain at 6 months, with 55% still improved at 12 months. Failure to respond to surgical treatment may be due to incomplete removal or destruction of the disease, or because of recurrence.

## **Nutrition**

There has been quite a lot of research into diet and endometriosis, which suggests that avoiding certain foods and eating more of others, may stop endometriosis from developing and /or reduce symptoms – including pain. We recommend the book 'Endometriosis – A key to healing through nutrition' by Dian Shepperson Mills and Michael Vernon, which is available on Amazon.

# **Complementary Therapies**

We recognise that some complementary therapies may be beneficial in controlling the symptoms of endometriosis. However, in the absence of evidence based on clinical trials, Endometriosis UK cannot endorse claims that such therapies control the disease.

It is important, when embarking on a complementary therapy, to ensure you are following the advice of a registered, professional practitioner. Always consult your GP before you try a complementary therapy.

For more information on complementary therapies, and how they can help with endometriosis specifically, you may want to see our series of complementary therapy fact-sheets, which you can order using our publications list (enclosed with this pack) or via the website.

**Acupuncture:** this therapy follows the ancient Chinese belief that the body is made up of energy (Qi), and that the flow of this energy can become disturbed. Fine needles are inserted into the energy points on the body to try to restore the flow of energy, promote healing, and relieve pain.

Chinese herbal medicine makes use of combinations of herbs, known as formulas, which work together to emphasise the most useful qualities of each herb, and reduce any undesirable effects.

When confronted with a particular problem, e.g. endometriosis, the practitioner aims to identify which aspect of the bodily function is disrupted, leading to the presenting symptoms. Once this is achieved, a formula is chosen which best addresses this imbalance, and restores the harmonious function of the whole body.

**Homeopathy** is a form of healthcare that looks not just at the physical symptoms a person may experience, but also a wider range of aspects — environmental, genetic, social, and personality factors. A qualified homeopath will be able to advise you which herbs and supplements may be beneficial for you. Do not self-medicate with herbs, as they can have as strong an effect as prescribed medication. It is important to get the right advice.



**Hypnotherapy** focuses on the role of the subconscious to bring about a desired effect or to change the client's condition. Hypnosis can assist in two areas. Firstly the client will be encouraged under hypnosis to seek out and allow healing to take place in the area affected by endometriosis. The second approach is in the area of pain control. Clients will first receive suggestions that diminish the pain and increase the body's resistance to it.

**Osteopathy** is based on the principle that the well-being of an individual depends on the skeleton, muscles, ligaments and connective tissues functioning smoothly together - for your body to work well, its structure must also work well. Osteopaths work to restore your body to a state of balance, where possible without the use of drugs or surgery. Osteopaths use touch, physical manipulation, stretching and massage to increase the mobility of joints, to relieve muscle tension, to enhance the blood and nerve supply to tissues, and to help your body's own healing mechanisms.

**Reiki** is a relaxation technique from Japan, which involves using hands to move energy round the body to keep the body in harmony.

**Relaxation** techniques are useful for helping to combat the pain associated with endometriosis and for improving sleep. Stress management techniques will help to alleviate stress and restore energy. Meditation, biofeedback and visualisation are common relaxation techniques.

**Reflexology** is a holistic treatment based on the principle that reflexes to all parts of the body are mapped out on the hands and feet. Skilled and precise massage of these reflexes can bring the body back to its natural balanced state by helping the body to relax, and stimulating the body's own natural healing processes. Reflexology also stimulates circulation, helps to remove toxins, stabilises breathing and boosts energy levels.

**Shiatsu** is a form of bodywork which originates from Japan. It involves stretching, holding, and applying pressure to the body using, thumbs, palms, forearms, knees and feet. Shiatsu shares the same theoretical background as acupuncture - the body is seen as an interconnecting network of channels (known as meridians), in which energy flows. Shiatsu rebalances the energy flow by working directly with the meridians using the techniques described above. Pressure may also be used on acupuncture points to treat more specific problems.

**Skenar therapy**. The Russian name for this device is the SCENAR. This stands for Self Controlled Energo-Neuro Adaptive Regulator. Whilst here in the UK it is seen as a Complementary therapy, the Russians see it as an Orthodox Medical Tool. It is a small hand-held device that has a bio-feedback aspect which is capable of locating areas of disease, injury or pain through nervous activity. Treatment is by stimulation through the nervous system to enable the brain to produce Neuro-peptides. These have the ability to relieve pain or in some cases aid healing in a natural way. The skenar is licensed in the UK for pain relief.

**Western herbal medicine** offers internal and /or external herbal treatment for a number of health disorders, using whole herbs. A unique individual prescription is made up for a patient after an initial consultation. Herbs work with the body and help to bring it back into balance.

**Yoga** therapy makes use of the principles of yoga to aid healing. Mainly, it uses yoga postures under supervision, breathing techniques and positive visualisation to assist in relaxation and healing.

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