
# MANAGEMENT FILE

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the ME association

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# THE MENOPAUSE, FEMALE HORMONES AND HRT

## INTRODUCTION

Around 70% of women experience physical, gynaecological and psychological symptoms during the menopause – some of which are the same or similar to those found in ME/CFS. So it's not surprising to find that the menopause can sometimes cause a significant flare-up of the ME/CFS symptoms.

Although hormone replacement therapy (HRT) can be very effective at relieving some of these symptoms, as well as reducing the risk of some of the more serious complications that result from falling levels of the hormone oestrogen, some side-effects can also overlap with ME/CFS symptoms.

In addition, some women with ME/CFS are very reluctant to start taking any form of hormonal treatment – even though there is no scientific evidence to show that HRT is harmful in ME/CFS.

This leaflet covers all aspects of the menopause, HRT, research into female hormones in ME/CFS – together with non-drug management options for the menopause if you have ME/CFS.

## WHAT IS THE MENOPAUSE?

This occurs when your monthly periods (menstruation) stop and pregnancy becomes less likely. The ovaries stop producing an egg every four weeks. It is sometimes referred to as the "change of life".

The average age for a woman to reach the menopause is 51 with most women doing so between 45 and 55. Some women go through the menopause much earlier – in their 30s or 40s.

If you experience the menopause before the age of 40, it's known as a premature menopause. This can be caused by surgical removal of the ovaries or womb (= hysterectomy), cancer treatment with chemotherapy or radiotherapy, infections, and hormonal disorders like Addison's disease and hypothyroidism. But sometimes there is no specific cause.

Menstruation can stop suddenly when you reach the menopause. But it's more likely that periods will become less frequent, with longer intervals between each one, before they stop altogether.

## SYMPTOMS

***Physical symptoms include:***

- Hot flushes – a sudden feeling of heat in the face, neck or chest which may then spread upwards or downwards. The skin on the upper body may also become hot and patchy and you may start to sweat. Hot flushes tend to last a few minutes. They are more common in the first year after the final period.
- Night sweats
- Palpitations. These are rapid or irregular or stronger heart beats, which may be associated with hot flushes and night sweats.
- Sleep disturbance – often made worse by night sweats.
- Fatigue
- Problems with memory and concentration; These can be made worse by insomnia.
- Headaches
- Joint pain

***Gynaecological and sexual symptoms:***

- Change in frequency or nature of periods, which may become lighter or heavier.
- Vaginal dryness, pain, itching and discomfort during sex which can lead to vaginal thinning/atrophy. Vaginal symptoms are quite likely to get worse without treatment.
- Loss of libido/sex drive.
- Cystitis, urgency or frequency of urination.

***Psychological symptoms:***

- Mood changes – irritability, anxiety or depression

In addition to symptoms that affect quality of life, the menopause is involved in the development of osteoporosis (bone-thinning disease) and heart disease. Osteoporosis occurs because reducing levels of the female hormone oestrogen, which plays a key role in calcium meta-bolism, results in increased bone turnover. This process also increases the risk of fractures.

The severity of menopausal symptoms, and their duration, will depend on your genetic makeup, lifestyle, diet, stress, and your overall health.

## WHAT CAUSES THE MENOPAUSE?

The human ovary contains large numbers of follicles that produce the hormone oestrogen. After the age of 40, there is a rapid decline in the number of these follicles.

The follicles are stimulated to enlarge and produce oestrogen by a hormone called follicle-stimulating hormone (FSH), which is produced in the brain. When follicular activity declines around the time of the menopause, the level of FSH in the blood starts to rise, and this test can be used to help detect if a woman is going through the menopause.

## DIAGNOSING THE MENOPAUSE

Symptoms can vary considerably from person to person in both severity and range. As with ME/CFS, many women find that their menopausal symptoms fluctuate – possibly due to fluctuating changes in the level of sex hormones.

Confirmation is normally made on symptoms and the menstrual pattern.

The start of the menopause is known as the perimenopause, during which there may be lighter or heavier than normal periods.

In women under the age of 50, the menopause is diagnosed after 24 months without a period. In women over 50, it is diagnosed after 12 months without a period.

## INVESTIGATIONS

Checking follicle-stimulating hormone (FSH) levels can be helpful in certain circumstances. A diagnosis of premature ovarian failure can be made from two FSH levels of 20 IU/L or more. An FSH level of 30 IU/L or more is indicative of postmenopausal status. FSH should ideally be measured on days two to five of the menstrual cycle.

Women with untreated premature menopause and those age 50 – 64 with a risk factor (eg family history, steroid use) for osteoporosis should be properly assessed for osteoporosis, possibly with a DXA scan, which measures bone mineral density (BMD).

Women who are going through the menopause should keep up to date with cervical screening and mammograms.

## GENERAL MANAGEMENT

***Activity***

Studies have shown that aerobic exercise (to maintain muscle mass and bone strength) can improve vasomotor symptoms, insomnia and psychological health. Physical activity also has a positive effect on osteo-porosis and heart disease. But this isn't an easy thing to doing if you have ME/CFS.

## RESEARCH INTO GYNAECOLOGICAL AND FEMALE HORMONES

Professor Tony Komaroff and colleagues[1] in America examined whether menstrual and gynaecological abnormalities precede the onset of ME/CFS.

They looked at 150 women with ME/CFS and 149 controls and used questionnaires on menstrual, reproductive and medical history. The ME/CFS group reported increased gynaecological complications and fewer premenstrual symptoms. Compared to controls, a greater number reported irregular menstrual cycles, times without periods, and sporadic bleeding between periods.

Factors suggestive of abnormal ovarian function – eg a history of polycystic ovary syndrome (PCOS), excessive hair growth and ovarian cysts were also more common.

They concluded that frequent menstrual cycles without ovulation due to polycystic ovary syndrome, or raised levels of the hormone prolactin, may increase the risk of ME/CFS.

This is through the loss of the potential immunomodulatory effects of the female hormone progesterone in the presence of continued oestrogen production. They also hypothesised that frequent menstrual cycles without ovulation due to PCOS may help to explain the increased reporting of gynaecological complications and lowered premenstrual symptomatology in ME/CFS.

Boneva's team in America[2] looked at 36 women with ME/CFS and 48 controls using a structured gynaecological history questionnaire. The ME/CFS group reported higher rates of pregnancy, gynaecological surgery, pelvic pain unrelated to menstruation, endometriosis, and times without periods. Menopause occurred about 4.4 years earlier in the ME/CFS group. More women in the ME/CFS group reported having a hysterectomy and ovary removal than controls. These findings stress the need to take a proper gynaecological history from women with ME/CFS.

Here in the UK, gynaecologists John Studd and Nicholas Pany reported in the Lancet[3] that an oestragen patch and cyclical progestogen therapy may help women who have a premenstrual exacerbation of symptoms with low levels of serum oestradiol.

[1] Harlow BL et al. (1998) Reproductive correlates of chronic fatigue syndrome. *American Journal of Medicine,* 105, 94S-99S.

[2] Boneva et al. (2011) Gynaecological history in chronic fatigue syndrome. A population-based case study. *Journal of Women's Health,* 21 - 28.

[3] Studd J and Panay N. (1996) Chronic fatigue syndrome. *Lancet,* 3478, 1384

***Hot flushes and night sweats***

Useful tips include wearing light clothing; keeping the bedroom cool at night; reducing stress levels; avoiding triggers such as spicy food, caffeine in drinks and alcohol.

***Diet***

Eating a well balanced diet each day is important and this should include 700mg of calcium per day. Obesity can make vasomotor symptoms worse – so reducing any excess weight can help.

- The British Dietetic Association has a fact sheet that provides more detailed information on healthy eating during the menopause. www.bda.uk.com/foodfacts/Menopause.pdf

## DRUG TREATMENTS

Medication isn't always needed to treat the menopausal symptoms or oestrogen deficiency.

But drug treatment may be useful if symptoms are more severe and are affecting your quality of life.

## HORMONE REPLACEMENT THERAPY (HRT)

HRT helps by correcting the fluctuating and falling levels of the two female hormones involved: oestrogen and progesterone.

HRT contains the female hormones oestrogen (in a form that is considered natural as it mimics oestrogen produced by the body) and progesterone. Oestrogen can be given in oral, vaginal or skin patch forms. Progesterone can be given in an oral, transdermal or intra-uterine system format.

Research indicates that HRT is the most effective form of treatment for what are called vasomotor symptoms (= night sweats, hot flushes) and can reduce their severity by over 80%. Improvement normally occurs within four weeks with maximum effect at three months.

Bone protection, sexual, urogenital and psychological symptoms are not indications for using HRT, but they may be improved by using it.

HRT increases bone mineral density, r educes the risk of fractures and is recommended for women with an early or premature menopause.

HRT improves vaginal dryness and atrophy, increase libido and reduces urinary frequency. It also helps to improve blood sugar control.

There is conflicting evidence on the value of HRT in preventing heart disease. Combined HRT may reduce the risk of colon cancer.

**Contra-indications**

The main contra-indications to using HRT are:

- Pregnancy
- Undiagnosed vaginal bleeding
- Active or recent blood clot
- Angina or heart attack
- Current or past breast cancer
- Acute liver disease
- Uncontrolled high blood pressure

ME/CFS is not a contra-indication to using HRT. But its use may be unsafe in people with moderate to severe ME/CFS, where there is significant physical inactivity, and a consequent risk of a blood clot forming.

**Side effects**

The most common side-effect and reason for stopping HRT is irregular bleeding. Bleeding on HRT may need further assessment, especially if it is heavy or occurs after some months without a period. This is to make sure there isn't anything wrong with the lining of the womb. Side-effects can also be related to the individual hormonal components of HRT.

Oestrogen side-effects include breast tenderness, nausea, headaches and bloating. Progesterone side-effects include premenstrual symptoms, pelvic pain, back ache, low mood and acne. Side-effects can sometimes be helped by altering the dose or method of delivery.

Concerns are frequently raised about the risk of serious side-effects including breast, endometrial (= lining of the womb) and ovarian cancer, gall bladder disease, heart disease and blood clots. Unfortunately, the results from research have not always been consistent – so it is not always easy to provide reliable advice on the risk.

Overall, studies have shown that HRT increases the risk of stroke, venous thrombosis (= blood clots) and pulmonary embolism (= blood clot in the lung), and gall bladder disease.

Osterogen-only HRT is associated with thickening of the lining of the womb) and endometrial cancer. Studies on ovarian cancer have not been consistent but it appears that the risk is small.

**Monitoring and for how long?**

Generally speaking, HRT should be used at the lowest possible dose for the shortest period of time to reduce risk. There are no strict rules as to when to stop but most guidelines recommend no more than five years use.

Guidelines recommend that HRT can be used up to the age of 51 where it is used to treat premature menopause.

Commencing HRT after the age of 60 is not recommended.

Women taking HRT should be reviewed every year for side-effects, weight and blood pressure.

## TIBOLONE

Tibolone is a synthetic (man-made) hormone that acts in the same way as HRT. It may be recommended as an alternative to combined HRT for post-menopausal women who want to end their periods.

Like HRT, tibolone is effective in treating menopausal symptoms, such as hot flushes and night sweats. It can also help prevent spinal fractures and may improve sexual problems, such as a decreased sex drive.

Tibolone carries some small risks, including a slightly increased risk of breast and womb cancer and stroke. It

is not suitable for women over the age of 60.

## CONTRACEPTION DURING THE MENOPAUSE

HRT and tibolone do not provide contraceptive protection. And, although fertility will decrease during the menopause, it may still be possible to conceive. So you will probably need to discuss appropriate contraceptive methods with your GP.

## OTHER PRESCRIPTION DRUG OPTIONS

These include drugs such as clonidine, which is an option for hot flushes and night sweats. But it can cause unpleasant side-effects.

Antidepressants – where the menopause is affecting your mental health. They may help with hot flushes.

Gabapentin, which is sometimes used for pain relief in ME/CFS, may help with vasomotor symptoms such as hot flushes and improve sleep.

Vaginal lubricants to help ease dryness.

## ALTERNATIVE AND COMPLEMENTARY APPROACHES

A number of alternative herbal/plant based treatments are frequently recommended. However, there is very little evidence to support their use and there are concerns about adverse effects with some of them.

They include:

**agnus castus** – some evidence but more research is needed

**black cohosh** – evidence conflicts with concerns about safety, especially liver toxicity

**evening primrose oil** – not shown to be effective

**ginseng** – not recommended as it can cause abnormal vaginal bleeding and breast pain

**phytoestrogens** – natural plant compounds that are structurally similar to the female hormone oesteadiol. Supporting evidence is conflicting and inconclusive. There are concerns about the effect these 'plant hormones' can have on oestrogen-sensitive breast tissue and the lining of the womb.

One exception is **dong quai,** a traditional Chinese herbal remedy, where there is some evidence to support its use, but it can interact with other drugs.

## FURTHER HELP

The British Menopause Society
4-6 Eton Place, Marlow,
Bucks SL7 2QA
Tel: 01628 890199
www.thebms.org.uk

***Medical information contained in this leaflet is not intended to be a substitute for medical advice or treatment from your doctor.***

***The ME Association recommends that you always consult your doctor or healthcare professional about any specific problem.***

***We also recommend that any medical information provided by The ME Association is, where appropriate, shown to and discussed with your doctor.***




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