balance
the menopause support app

What is reproductive depression?

Depression in women is common at times of hormonal change. Reproductive depression is a hormonally based depression that can come and go over the course of your reproductive life, including the perimenopause. You might have reproductive depression if you experienced premenstrual depression (you might think of it as PMS) and if you've had children, you may have suffered with postnatal depression. When you enter the perimenopause, symptoms of depression might be at their worst yet (even though they can still fluctuate) and they may last for several years before your periods finish for good. Most women find that when they're pregnant and not getting monthly cycles their mood is more stable.

It is important to realise that reproductive or hormone responsive depression cannot be diagnosed by any blood tests. Many of you will understand that your depression is related to your hormones, but when your hormone levels are checked, especially estradiol and FSH, they are often found to be normal.

The underlying explanation for reproductive depression is that some women's brains are much more sensitive to the hormonal fluctuations of the menstrual cycle, after pregnancy and during perimenopause. The female brain relies on mechanisms to adapt to the hormonal flux that happens every month and around pregnancy and perimenopause. When these adaptive mechanisms are not working as they should, it leaves you vulnerable to a hormonal depression, particularly when levels of estrogen and progesterone decline, like they do in the perimenopause.

Hormones and the menstrual cycle

Hormones are your body's chemical messengers. They travel in your bloodstream to tissues or organs and attach to a receptor in that particular organ to bring about a reaction. Hormones are involved in many different processes, including growth, metabolism, sexual function, reproduction and mood.

There are certain hormones important to your menstrual cycle:

Follicle-stimulating hormone (FSH) is released from the pituitary gland in the brain and it stimulates the ovarian follicles.

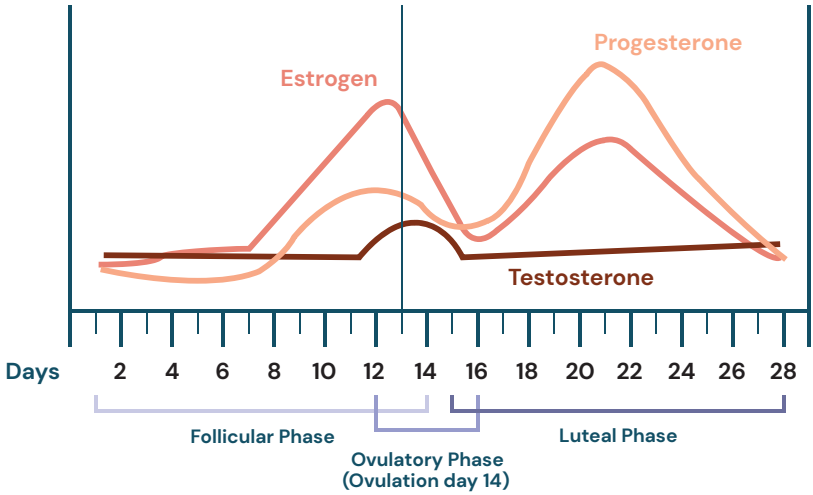
Luteinising hormone (LH) is also released from the pituitary gland in the brain at ovulation, causing rupture of a mature ovarian follicle, thus releasing the egg.

Estrogen is one of the female sex steroid hormones, responsible for thickening the womb lining and maturing an egg before you ovulate. Estrogen is produced mostly by the ovaries but also in smaller amounts by the adrenal glands and in fat tissue.

Progesterone is another of the female sex steroid hormones. It works in the body to balance the effects of estrogen and is often referred to as the relaxing hormone. Progesterone is produced after ovulation and dominates the second half of the cycle (luteal phase). Progesterone's main role is to control the build-up of the endometrium (womb lining) and help maintain and mature the endometrium if there is a pregnancy.

Testosterone is an important sex hormone for both men and women, although women have much lower levels. It is produced by the ovaries and the adrenal glands. Testosterone often helps you maintain muscle and bone strength, enhances your sex drive and helps with your overall sense of wellbeing and zest for life.

Hormone fluctuations during the menstrual cycle



Serotonin is both a hormone and a brain neurotransmitter. It is thought to regulate mood, anxiety, emotions and sleep. Low levels of serotonin are linked to depression. A lack of estrogen may cause a fall in serotonin that contributes to symptoms of mood swings and depression.

Premenstrual syndrome

Premenstrual syndrome, also known as PMS, is when you experience distressing symptoms in the days or weeks leading up to the start of your period. PMS encompasses a vast array of psychological symptoms such as depression, anxiety, irritability, loss of confidence and mood swings. There can also be physical symptoms such as bloating and breast tenderness.

PMS is identified when symptoms occur, and have a negative impact, during the second half of the menstrual cycle (the luteal phase). It is the timing of symptoms and how much they impact on your daily activity that supports a diagnosis of PMS, rather than merely the nature of the symptoms themselves. If you need help with your PMS, keeping a symptom diary is the most reliable way to diagnose it and discuss possible treatments. This should be done for at least two cycles as a minimum and kept as a written record (or many people use an app to log their symptoms and periods).

Premenstrual dysphoric disorder is an extreme version of a premenstrual disorder; there are strict criteria for diagnosing PMDD. Certain symptoms must be present, and this always includes low mood. The symptoms must occur in the luteal phase and must be severe enough to disrupt daily functioning. If you have PMDD your mood changes each month can have a serious impact on your life. Experiencing PMDD can make it difficult to work, socialise and have healthy relationships. In some cases, it can also lead to suicidal thoughts.

Postnatal depression (PND)

PND or postnatal illness is a depression that affects 10-15% of those who have given birth, usually happening within the first year. It is a combination of both physical and mental symptoms, including low and depressed mood, anxiety, insomnia, poor concentration, lack of interest or enjoyment, low libido, fatigue and sometimes thoughts about harming yourself or the baby.

PND frequently goes unrecognised because many women regard this degree of depression and exhaustion as a normal consequence of looking after a new baby. Many individuals who are experiencing upsetting thoughts, especially those of harm, do not tell other people about this.

It is very likely that the root cause of postnatal depression is the sudden decrease of hormones, particularly estrogen, that occurs after delivery. PND can be more severe and more prolonged in women who breastfeed as this suppresses the estrogen level further.

Perimenopausal depression

There are many reasons why women become depressed around the time of the menopause. Frequent hot flushes and night sweats, poor sleep, headaches, joint aches and genital discomfort, often combined with work and family stresses, can all contribute to a lowering of mood. Interestingly, there is another type of depression that is not purely as a result of menopausal symptoms, and it can happen in the 3 or 4 years before periods stop. This is a depression that can occur in the absence of any other symptoms, and it is thought to be directly related to hormones changing and falling. This type of depression has been shown in studies to be responsive to treatment with estrogen.

Helping reproductive depression with HRT

The use of moderately high doses of transdermal estrogen (that taken through the skin in a patch, gel or spray) is often recommended to suppress ovulation in women with PMS, postnatal depression and depression in the perimenopause. Common doses for these types of depression would be 200mcg patches (twice weekly), or 4mg daily of estrogen gel. This approach often balances out the profoundly fluctuating estrogen levels to help stabilise your body's reaction to the hormones and lessen symptoms.

HRT should be considered the first-choice treatment for reproductive depression, including **pre**menopausal women with depression. This estrogen treatment usually needs to be given alongside a progesterone treatment, that is usually taken for 2 weeks out of every month, and this pattern will trigger a monthly bleeding cycle for you. The progesterone is to help keep your womb lining thin and healthy. (An alternative way of having the progesterone hormone is to have a Mirena coil fitted, if you have not had a hysterectomy). You may also be offered the hormone testosterone, and this can often further improve your mood, energy levels and libido.

In severe cases of a reproductive depression, the use of GnRH analogues are sometimes used. This is a hormone medication that 'switches off' the ovaries altogether, usually given with 'add back' HRT to prevent the associated risks from a lack of hormones and improve your future health. This medication tends to only be recommended when other treatments have been unsuccessful, and it may then lead onto discussions of possible surgery to remove both ovaries (known as bilateral salpingo-oophorectomy or BSO) and/or your womb (a hysterectomy). HRT is usually used after these types of surgery as your body will no longer produce the estrogen, and often also testosterone, that you need.

Other forms of help

Even though the illness is hormonal in origin, you may still be prescribed psychiatric medication. Antidepressants can be immensely helpful and are often prescribed for hormonal depression, particularly if HRT alone is not bringing the desired effects. Antidepressants can be taken alongside HRT.

Other treatments including the following lifestyle changes:

Diet
Eating regular meals with healthy whole foods can help to balance blood sugar levels and avoid dips (hypoglycaemia) which may exacerbate your symptoms. Try and include plenty of vegetables, fruits and legumes to provide fibre into your diet as well as vitamins and minerals, such as magnesium, calcium and B vitamins, and omega 3's from oily fish (or algae sources or supplements if you're a vegetarian/vegan). Try and cut down, or cut out, caffeine and alcohol as these can also make symptoms worse in the long run.

Exercise
Exercise helps to improve your mood by boosting endorphins which help combat low mood and irritability. This can be both aerobic exercise in the form of walking, running, swimming and cycling or more low impact and restorative exercise such as yoga and Pilates. Exercise also helps maintain your

heart and bone health as well as improve your immunity and insulin sensitivity (helping to ward off type 2 diabetes in the future).

Stress
As soon as we begin to feel stressed our bodies are flooded with the stress hormones cortisol and adrenaline. These are designed to put us into 'fight or flight' mode. If you have reproductive depression, persistent or chronic stress will only worsen your symptoms because of the cascade of chemicals that it can trigger. Know your triggers for feeling stressed and discover ways to help you cope with these and make time to relax and unwind. A quick 5-minute breathing exercise can be very beneficial at times when you're feeling overwhelmed.

Sleep
Make sure you prioritise your sleep and try to go to sleep at the same time every night. This helps balance the 'menstrual clock' in your brain and evens out your fluctuating hormones.

Counselling and therapy
Counselling, psychotherapy and Cognitive Behavioural Therapy (CBT) are immensely powerful when dealing with any form of depression and anxiety, whatever the underlying cause. Talking therapies can help you come to terms with what is happening to you and teach you techniques to manage the spiral of negative thought processes which can often occur.

Useful resources:
For more information on:

Depression - visit Mind at **www.mind.org.uk**

PMS - visit NAPS at **www.pms.org.uk** and **iapmd.org**

Postnatal depression – visit **apni.org**

Reproductive depression - visit **www.studd.co.uk**

Psychological/talking therapies – visit **www.nhs.uk/service-search/mental-health/find-a-psychological-therapies-service/**