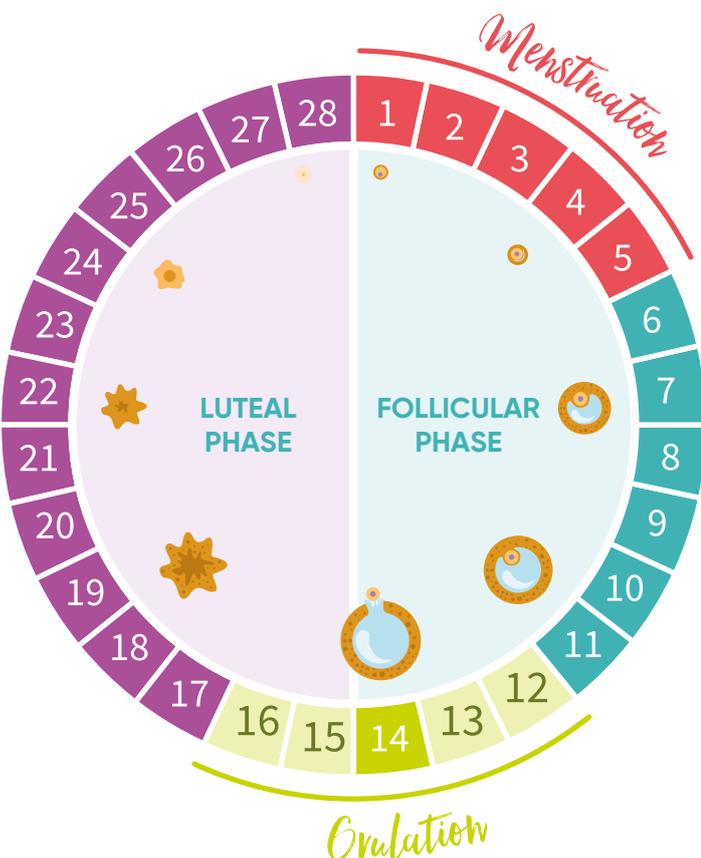


Premenstrual Syndrome (PMS)

Premenstrual syndrome (PMS) affects millions of women worldwide. It is estimated that a staggering 80% of reproductive age women suffer every month with distressing behavioural, physical and psychological symptoms that occur during the luteal phase of the menstrual cycle (this is the time between ovulation and the menstrual period). And for 30 – 40% of these women, symptoms can be so debilitating that they interfere with normal daily function. If you've ever suffered from, or currently struggle with any degree of regular PMS symptoms, no doubt this will all be sounding very familiar...



IN THIS PMS FACT SHEET YOU WILL FIND:

- ✓ Top diet tips! What to include & what to reduce
- ✓ 5 Lifestyle changes your hormones will love!
- ✓ 10 Key nutrients & ingredients

PMS – You don't need to 'just live with it'

Whilst there are many possible underlying causes, what we do know for certain is that PMS isn't just a normal part of a woman's life, and isn't something that you need to 'just live with'. It is completely possible to feel calm, balanced and symptom-free throughout your menstrual cycle. And the good news is that there is much you can do to support yourself naturally with diet and lifestyle changes, and targeted nutrients and ingredients. The even better news is that together these have the potential to be of considerable help. Ready to get started on the journey to improved PMS? Let's take a closer look.

PMS Symptoms

PMS differs from one woman to another, and ranges from mild, to a severe form known as premenstrual dysphoric disorder (PMDD), which is estimated to affect 5-8% of PMS sufferers. The symptoms of PMS vary in type, amount and duration too, lasting anything from a few days to over a couple of weeks in extreme cases. PMS symptoms typically disappear or are significantly reduced by the end of the menstrual period.

There are over 150 possible PMS symptoms. Here's some of the most common:

Psychological & Behavioural	Physical
Mood Swings	Abdominal cramps
Depression	Pelvic discomfort / pain
Anxiety	Skin eruptions / acne
Crying easily	Bloating
Tiredness, fatigue, lethargy	Digestive disturbance
Feeling out of control	Constipation
Irritability	Diarrhoea
Forgetfulness	Headaches
Poor concentration	Migraine
Anger / aggression	Breast tenderness
Poor sleep / insomnia	Water retention
Food cravings	Weight gain
Nausea / vomiting	Clumsiness

So, what causes PMS?

There is no single known underlying cause of PMS yet it is highly likely that symptoms are related to the hormonal fluctuations that occur during the menstrual cycle, the delicate balance between hormones (particularly an excess of oestrogen relative to progesterone) and the way the body responds to and processes them. It is also likely that chemical substances called prostaglandins play a role. At the start of the menstrual period, inflammatory prostaglandins are released which constrict blood vessels in the uterus, causing the muscles to contract and the uterus to shed its lining. These prostaglandins can cause abdominal and painful cramps, and even headaches, nausea, vomiting and diarrhoea. Some research has found higher prostaglandin levels in women who experience painful periods than those who don't. In addition, alterations in serotonin - the 'feel-good' neurotransmitter that helps to support a balanced mood - may be involved.

Depending on the dominant symptoms, conventional medical approaches for PMS tend to focus on suppressing ovulation using the oral contraceptive pill or similar, and / or targeting mood with selective serotonin reuptake inhibitor (SSRI) anti-depressants.





Top Diet Tips!

What to include.....

- ✓ **Phytoestrogens** – Add flaxseeds, legumes (chickpeas, kidney beans, lentils, lima beans), sprouting seeds (alfalfa, soybean) and natural fermented forms of soy such as tofu, miso and tempeh into your diet. These foods contain gentle plant oestrogens that may help to restore balance if oestrogen levels are higher relative to progesterone, either through the body's own production, lowered capacity to eliminate or excessive exposure to harmful (foreign) xeno-oestrogens (found in plastics, tap water, pesticides and chemicals).
- ✓ **Fibre & fresh, filtered water** – Along with plenty of fresh filtered water daily, fibre may help to regulate bowel movements which can help to ensure used hormones and toxins are effectively eliminated. Increase flaxseeds, sunflower and pumpkin seeds, wholegrains such as oats and rye, beans, lentils and chickpeas, vegetables and berries. Fibre also helps to feed beneficial gut microbes and helps to keep you feeling fuller for longer, so may help to reduce sugary cravings.
- ✓ **Organic fresh foods cooked from scratch** – A diet based on organic fresh wholefoods cooked from scratch is important for everyone, and especially if you're struggling with PMS. Refined, processed convenience foods are often seriously low in the very nutrients the menstrual cycle needs to stay balanced. Instead they are loaded with sugar, salt, artificial sweeteners, additives and harmful trans fats – all of which may increase the likelihood and severity of PMS symptoms. Non-organic foods may contain pesticides and add to your toxic load. Excessive levels of salt in heavily processed food can contribute to water retention. Organic, grass-fed, free-range animal products such as meat and eggs are recommended. Organic is especially important for dairy products.
- ✓ **Plant food variety** – Plant foods contain not only essential nutrients but powerful phytochemicals that can support hormonal health in many different ways. The best way to harness these benefits is to regularly include in your diet a diverse variety of brightly coloured plant foods. The ultimate aim is to get 40+ different plant foods in your diet every week. Now there's a challenge! Get started by including one different plant food that you don't normally eat on your shopping list next week.
- ✓ **Omega-3s** – Omega-3 fatty acids are found in flaxseeds, flaxseed oil, walnuts, hemp seeds, soybeans, dark green leafy vegetables such as kale and chard, and oily fish such as salmon and mackerel. Increasing omega-3s in your diet is particularly important to help keep inflammatory prostaglandins in check. This is because a typical Western diet tends to contain higher levels of omega-6 fatty acids (meat, poultry, dairy, eggs, safflower & sunflower oil) which promote the more pro-inflammatory prostaglandins associated with menstrual pain and cramping. Omega-3s help to promote the production of the more anti-inflammatory type instead, hence why it is so important to increase your intake.
- ✓ **Anti-inflammatory phytochemicals** – Powdered and fresh ginger and turmeric can be added to dishes such as stir fries and curries. These spices not only add flavour but have powerful antioxidant and anti-inflammatory activity too. Ginger has a long history of traditional use for reducing pain and inflammation, including painful periods. Ginger is also widely available as herbal tea.

- ✓ **Seed cycling** – Seed cycling is a simple method of eating different types of seeds during the first and second phases of the female menstrual cycle. It has long been used as a natural way to support hormone balance and is a great way to incorporate more seeds into the diet. During the first half of the menstrual cycle consume 1 tablespoon each of ground pumpkin and flaxseeds daily. For the second half consume 1 tablespoon each of sesame and pumpkin seeds. The easiest way to include ground seeds in your diet is in a smoothie or mixed with natural yoghurt or kefir. The main aim is to regulate oestrogen during the first half and progesterone during the second half of the cycle. Find out more [here](#).
- ✓ **Fermented foods** – Add a serving of fermented foods daily. These include kombucha, kefir, kimchi or sauerkraut. This is to support the balance of bacteria in the gut which sits right at the foundation of healthy hormone balance.
- ✓ **Cruciferous vegetables** – Broccoli, cauliflower, cabbage, Brussels sprouts and in particular broccoli sprouts are PMS heroes because they contain powerful compounds that help to support hormone balance. Aim for one serving of cruciferous vegetables daily. A handful of broccoli sprouts work well in a salad or added to a smoothie.
- ✓ **Liver support foods** – Include liver-loving foods such as onions, garlic, leeks, artichoke and dandelion. Nettle tea is a great liver support too.
- ✓ **Blood sugar balance** – Blood sugar balance is key for PMS, especially for reducing sugar cravings and many other PMS symptoms too. You can support blood sugar balance via a combination of dietary and lifestyle strategies. Read more about this [here](#).



What to reduce.....

- ✗ **Alcohol** – Whilst an alcoholic drink may feel like a quick route to calm and de-stress if you're struggling with PMS, the reality is that alcohol can actually make many symptoms worse. Alcohol can contribute to anxiety, low mood, disrupted sleep, reduced stress resilience, hormone imbalances, blood sugar fluctuations and adds extra strain on the liver. In short, it is certainly best reduced, even better avoided!
- ✗ **Caffeine** – High caffeine consumption is linked with a higher incidence of PMS and may increase symptoms of breast tenderness for some women. Taking steps to reduce PMS involves cutting down on caffeinated drinks such as coffee and tea, and even caffeinated fizzy drinks and chocolate in excessive quantities too.
- ✗ **Refined sugar and artificial sweeteners** - Research has shown that the higher the level of sugar in a woman's diet, the more severe her PMS will be. Artificial sweeteners such as sucralose, Acesulfame K and aspartame have been shown to negatively affect gut bacteria which may contribute to bloating and digestive disturbances. Looking after the beneficial bacteria in your gut is an important part of PMS support – not least because they help to eliminate used oestrogen from the body.
- ✗ **Dairy** – If you're struggling with PMS it's worth keeping dairy foods in check, not only can dairy foods promote inflammation when consumed in excess, but may contribute to hormone disruption too.
- ✗ **Keep saturated fats in check** – Fats are an important part of the diet and it is vital to include all types, including saturated fats (butter, ghee, coconut oil, dairy, meat, etc.). With PMS however, balance is key and it is especially important to include a wide range of different fats such as the omega-3s (see above). An exception is trans fats which are found in processed foods and best avoided completely. Keep a food diary for a few days and see if there are any simple swaps you can make – such as making a meal based on oily fish or tofu instead of red meat or chicken. This isn't about avoiding saturated fats but rather looking for ways to tweak your diet to nurture a healthy balance.

5 Lifestyle changes your hormones will love!

- ♥ **Let the sun shine in** – Not only does getting outside in nature and fresh air make you feel good; you are also increasing your chances of an all-important vitamin D boost. Research has found low vitamin D in PMS sufferers so it's important to ensure you achieve and maintain optimal levels. Our main source of vitamin D is not food but sunlight; your bare skin makes vitamin D in contact with the sun's UV rays. Hence why regular (safe) sun exposure is crucial during the summer and supplementation is recommended during the cooler winter months.
- ♥ **Keep calm and keep stress in check** – Chronic stress is commonly associated with PMS. Stress negatively impacts the balance of female hormones, disrupts sleep and blood sugar, and is a significant known risk factor for low mood, depression and anxiety. Chronic stress depletes magnesium, vitamin C and B vitamins too – all vital nutrients needed to support female hormone balance. If this resonates with you, don't panic, instead start slowly by taking a small step to support a healthier balance. Regular exercise is a great way to keep stress in check, as are activities such as mindfulness meditation, breathing exercises, getting outside in nature, yoga, pilates and Tai chi.
- ♥ **Get regular good quality sleep** – Sleep is essential for every aspect of your health and in particular supports blood sugar balance, the nervous system, energy production, balanced inflammation, mood, stress resilience and hormone balance, all of which protect against PMS.

super sleep tips!

- Keep regular sleep hours
- Create a calming routine before bed (eg. chamomile tea & relaxing bath)
- Switch off electronic devices an hour before bed
- Get daylight exposure as early as possible each day
- Create a cool, dark, distraction-free sleep environment



- ♥ **Reduce plastics** – Plastics are everywhere, and some contain harmful substances known as EDCs (Endocrine Disrupting Chemicals). In simple terms this means they can disrupt the delicate balance of your hormones. If you are struggling with PMS symptoms, we want you to take steps to help bring your hormones back into balance, yet sadly, exposure to plastics may do the opposite. Get started by avoiding plastic water bottles, food wrapped in plastic packaging and plastic food storage containers, choose glass or stainless steel instead. And never heat food in a plastic container in a microwave.
- ♥ **Detox your life** – We live in an increasingly toxic world which puts daily pressure on the hard-working liver. The liver not only has to deal with toxins we are exposed to through food, water, air and our skin, but is also responsible for making safe and getting rid of old hormones (like oestrogen) once they have been used. When your overall toxic load is high and your liver is under pressure, hormones (such as oestrogen) may be re-circulated instead of eliminated. This can contribute to hormone imbalance, in particular higher levels of oestrogen relative to progesterone, and increased symptoms of PMS. There are many simple steps you can take to reduce your overall toxic load. Find out more [here](#).

Key nutrients & ingredients

- ★ **Magnesium** – An essential mineral for many aspects of female health, magnesium is often nicknamed ‘nature’s tranquiliser’ which attests to its calming, relaxing properties and gives some clue as to its value for anyone struggling with PMS symptoms. Magnesium is important for sleep, balanced stress response, energy production and to support muscle relaxation. Women with PMS have been shown to have low magnesium compared to those who are PMS free. One study found a 35% reduction in PMS symptoms after 3 months’ supplementation with 250mg magnesium daily. Magnesium is best supplemented in the form of magnesium glycinate. This simply means that magnesium is bound together with the amino acid glycine which has additional calming properties and helps to support optimal absorption.
- ★ **Vitamin B6** – Vitamin B6, along with magnesium, helps to support the production of anti-inflammatory, pain-relieving prostaglandins. There is some evidence to suggest that magnesium is more effective for mood-related PMS symptoms when combined with vitamin B6. Vitamin B6 is also involved in the production of the feel-good neurotransmitter serotonin.

- ★ **Zinc:copper ratio** – Research has shown that zinc deficiency occurs in PMS patients during the luteal phase, and the availability of zinc in PMS patients during the luteal phase may be further reduced by elevated copper. The oral contraceptive pill has been found to increase copper levels.
- ★ **Calcium & vitamin D** – In a large review of studies on the role of calcium and vitamin D in PMS, researchers found that low levels of calcium and vitamin D during the luteal phase of the menstrual cycle may cause or exacerbate PMS symptoms. They concluded that *“calcium and vitamin D supplementation are recommended as an inexpensive, low-risk, acceptable and accessible approach to eliminate or reduce the symptoms of PMS”*. Low calcium is associated with irritability, anxiety, low mood, fatigue and muscle cramps.
- ★ **Glutathione & milk thistle** – Glutathione is often nicknamed the ‘master antioxidant’ and the herb milk thistle has a long history of traditional use in supporting the liver. Antioxidant and liver support are important components of PMS support.



- ★ **Myo-inositol** - Myo-inositol is a naturally occurring, nutrient-like substance that has been studied in a variety of mood and behavioural disorders and may help to support blood sugar balance. In one study in women with the severe form of PMS, premenstrual dysphoric disorder (PMDD) researchers found that supplementation with 2g myo-inositol daily was able to significantly reduce symptoms.
- ★ **Vitamin C** – Vitamin C is an important nutrient that helps to support a balanced stress response and helps to support iron absorption. Iron status may be of particular concern for female athletes and those with heavy menstrual periods.
- ★ **B vitamins & folate** – The B vitamins are often described as a complex since they work together to support health. B complex vitamins, and in particular, vitamins B6, B12 and folate together support essential processes that support oestrogen processing. B complex vitamins are intimately involved in the workings of the nervous system and have a direct effect on mood and regulation of neurotransmitters such as serotonin. They are found in rich supply in wholegrains, green leafy vegetables and some meats but are water soluble which means they must be consumed regularly. Refined processed foods are often lacking in these important nutrients. The oral contraceptive pill has been found to be associated with depletions in B vitamins and folate, as well as many other essential nutrients.
- ★ **Omega-3s** – Omega-3 fatty acids eicosapentaenoic acid (EPA) & docosahexaenoic acid (DHA) are found in rich supply in oily fish and may help to support the production of anti-inflammatory prostaglandins. Prostaglandin balance is a crucial target for PMS.
- ★ **Ashwagandha** - The traditional ayurvedic herb ashwagandha is known as an 'adaptogen' which means it may help to support stress resilience during times of increased pressure. Since chronic stress is a known risk factor for PMS, this herb may be a particularly useful support. Ashwagandha is best taken in the extensively studied and documented KSM-66® extract form.
- ★ **Chromium, cinnamon & alpha lipoic acid** – This powerful trio may help to target sugar cravings and support blood sugar balance - vital considerations for anyone struggling with PMS.
- ★ **Probiotics** – Supplementation with beneficial bacterial strains may help to support the balance of bacteria in the gut. *Lactobacillus acidophilus* NCFM® and *Bifidobacterium lactis* Bi-07 are extensively studied strains of live bacteria which can be taken in supplement form to support this balance.

For more **research** or information on our **products**



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