CONDITION

Premenstrual syndrome

Premenstrual syndrome is a recurring group of physical and emotional symptoms before a menstrual period.

WHAT IT IS
Recurring symptoms before menstrual periods

BODY SYSTEM
Reproductive system, brain, and mood

MAIN SYMPTOMS
Mood changes, bloating, breast tenderness, headaches

WHAT CAUSES IT
Sensitivity to normal menstrual hormone changes

HOW IT IS DIAGNOSED
Daily symptom tracking across two menstrual cycles

MAIN TREATMENT
Lifestyle changes, psychological therapy, and medicines

CAN IT BE CURED?
No - treatment controls symptoms until menopause

IS IT AN EMERGENCY?
Sometimes - self-harm or suicidal thoughts

LONG-TERM OUTLOOK
Symptoms usually stop after menopause

Overview

Premenstrual syndrome, usually called PMS, is a pattern of physical and emotional symptoms linked to the menstrual cycle. Symptoms develop after ovulation, often during the one or two weeks before a period. They improve within the first few days after bleeding begins.

Many people notice some changes before a period. PMS is diagnosed when symptoms happen in a repeated cycle and affect daily life, such as work, school, sleep, relationships, or usual activities.

PMS is not caused by a hormone deficiency or by having "too many" hormones. It appears to involve increased sensitivity to the normal rise and fall of reproductive hormones. These changes also affect brain chemicals involved in mood, including serotonin.

A more severe condition called premenstrual dysphoric disorder, or PMDD, causes marked mood symptoms and major disruption to daily life. PMDD has specific diagnostic criteria and is not simply another name for PMS.

Symptoms

Symptoms differ from person to person. They should follow a clear menstrual pattern, improving shortly after the period starts and leaving a symptom-free time during the cycle.

Common emotional or behavioural symptoms include:

Common physical symptoms include:

PMS can make an existing condition feel worse before a period. Migraine, asthma, epilepsy, depression, anxiety, and irritable bowel syndrome may follow this pattern. This is sometimes called premenstrual exacerbation , meaning a condition is present throughout the month but becomes worse before menstruation. It may need a different treatment approach from PMS.

Symptoms that occur throughout the month, without a clear symptom-free interval, are less likely to be PMS alone.

- Irritability, anger, anxiety, or low mood
- Feeling unusually emotional or overwhelmed
- Trouble concentrating
- Changes in sleep, appetite, or food cravings
- Less interest in usual activities or social contact
- Bloating or temporary fluid retention
- Breast tenderness
- Headache
- Tiredness
- Acne
- Joint or muscle discomfort
- Changes in bowel habits

Causes and risk factors

The exact cause of PMS is not fully understood. Symptoms appear to result from the brain and

body responding strongly to normal hormonal changes after ovulation. Serotonin and other brain chemicals may help explain the effects on mood, sleep, and appetite.

PMS is not caused by poor coping, personal weakness, or an abnormal menstrual cycle. Hormone blood tests are often normal.

PMS can occur at any time during the reproductive years. Symptoms may be more troublesome during periods of hormonal change, including the years approaching menopause. They do not occur before puberty or after menopause because there is no longer a monthly ovulatory cycle.

Factors associated with more troublesome symptoms include a personal or family history of PMS or PMDD and a history of depression or anxiety. Stress and poor sleep can make symptoms harder to manage, although they are not considered the underlying cause.

Diagnosis

There is no blood test, scan, or single symptom that confirms PMS. Diagnosis is based on what symptoms occur, when they occur, and how much they affect your life.

You may be asked to record symptoms every day for at least two menstrual cycles. A structured chart, such as the Daily Record of Severity of Problems, can help show whether symptoms reliably appear before periods and improve afterward. Recording symptoms from memory is less reliable because it is easy to focus on the most difficult days.

A healthcare professional may ask about your periods, medicines, contraception, mental health, sleep, and other medical conditions. Depending on your symptoms, tests may be used to look for another cause. For example, thyroid disease, anaemia, pregnancy, perimenopause, depression, and anxiety can cause similar problems. These tests rule out other conditions; they do not confirm PMS.

PMDD is considered when severe mood symptoms occur before most periods, substantially interfere with daily life, and meet formal diagnostic criteria. Daily tracking is also important because depression, bipolar disorder, and anxiety disorders can worsen before a period.

Treatment and management

Treatment depends on which symptoms are most disruptive and how strongly they affect daily life. Keeping a symptom diary while trying a treatment can show whether it is helping.

Regular physical activity, consistent sleep, and balanced meals may reduce symptoms for

some people. Reducing alcohol and avoiding large amounts of caffeine may help if they worsen anxiety, sleep problems, breast tenderness, or headaches. Stress-management methods can make symptoms easier to handle, even though stress is not the root cause of PMS.

Cognitive behavioural therapy, or CBT, can help with the way symptoms affect thoughts, behaviour, relationships, and daily routines. It may be useful alone or alongside medicine.

Selective serotonin reuptake inhibitors like sertraline or fluoxetine , known as SSRIs, are antidepressant medicines that can reduce emotional and some physical symptoms. For PMS or PMDD, they may be taken every day or only during the part of the cycle before a period. The choice should be made with a prescriber because side effects, other medicines, pregnancy plans, and withdrawal symptoms need to be considered.

Some combined hormonal contraceptives suppress ovulation and may improve symptoms. However, individual responses differ, and some people notice no improvement or worse mood symptoms. Contraceptive suitability also depends on factors such as migraine type, blood-clot risk, smoking, age, and other health conditions.

Medicines for individual symptoms, such as pain relievers for headaches or cramps, may help. They do not treat the full PMS pattern. Diuretics like furosemide or hydrochlorothiazide , sometimes called water tablets, are occasionally considered for severe fluid-related symptoms but are not suitable for everyone.

Calcium and some other supplements have been studied, but products and evidence differ. Supplements can cause side effects or interact with medicines. "Natural" does not always mean safe, especially during pregnancy or when you have kidney, liver, or heart problems.

For severe symptoms that have not improved with usual treatments, a specialist may consider medicines that temporarily switch off ovarian hormone production. These can cause menopause-like effects and bone loss, so they require careful monitoring and may be combined with replacement hormones. Surgery to remove the ovaries is irreversible and is rarely considered.

Complications

PMS does not damage the reproductive organs or cause infertility. It is not known to turn into another physical disease.

Its main complications come from its effect on quality of life. Repeated symptoms can disrupt work, education, sleep, exercise, and relationships. Severe mood symptoms may contribute to conflict, isolation, or difficulty caring for yourself.

PMDD is associated with a higher risk of suicidal thoughts and behaviour. Any thoughts of

self-harm or suicide should be taken seriously, whether or not they occur before a period.

Prevention

PMS cannot always be prevented because the underlying sensitivity to menstrual hormone changes is not under your control.

Tracking symptoms can help you prepare for difficult days and identify changes that reduce their impact. Regular sleep, physical activity, balanced meals, and limiting anything that clearly worsens your symptoms may help. These steps do not guarantee that PMS will stop.

Hormonal treatments that prevent ovulation can reduce symptoms for some people, but they are treatments rather than reliable prevention and are not appropriate for everyone.

Living with it and what to expect

PMS usually follows a repeating monthly pattern, but its severity can change over months and years. Some cycles may be easier than others. Stress, poor sleep, illness, and major life changes may affect how manageable symptoms feel.

Symptoms may change during the years before menopause because ovulation becomes less predictable. PMS usually stops after menopause, when ovarian cycles end, although hot flushes, sleep problems, and mood changes caused by menopause can feel similar.

PMS generally pauses during pregnancy because there are no menstrual cycles. Symptoms may return after pregnancy when ovulation and periods resume.

A written symptom record can make patterns easier to recognise. It can also help distinguish PMS from a condition that is present all month. Many people find a workable management plan, but it may take more than one approach and occasional review as symptoms change.

When to get medical help

Arrange a routine appointment if symptoms repeatedly affect work, study, sleep, relationships, or usual activities. You should also seek advice if self-care has not helped, symptoms are getting worse, or you think you may have PMDD.

Routine assessment is also appropriate if symptoms occur throughout the month, periods have changed, or you have significant pelvic pain or bleeding. These features may have another cause and should not automatically be assumed to be PMS.

Seek urgent help if you are having thoughts of self-harm or suicide, feel unable to keep yourself safe, or believe you may act on these thoughts. Contact local emergency services or a crisis service, and stay with a trusted person if possible.

Urgent assessment is also appropriate for severe new pelvic pain, fainting, or heavy bleeding accompanied by weakness, breathlessness, or dizziness. These are not typical PMS symptoms.

Common questions

How do I know if it is PMS or PMDD?

Both follow the menstrual cycle. PMDD causes severe mood symptoms, such as marked irritability, depression, anxiety, or rapid mood changes, and substantially disrupts daily life. It requires a specific combination of symptoms confirmed with daily tracking. A healthcare professional can assess whether the pattern meets those criteria.

How long before a period does PMS start?

Symptoms often begin during the one or two weeks before bleeding. They usually improve within a few days after the period starts. Symptoms that remain at a similar level all month may have another explanation.

Can I have PMS while taking the pill?

Yes. Some hormonal contraceptives suppress ovulation and improve symptoms, while others may not prevent PMS-like symptoms or may affect mood themselves. The pattern can also be harder to recognise if a contraceptive changes or stops bleeding.

Does PMS get worse with age?

It can become more noticeable during the late reproductive years and the transition toward menopause, but this does not happen to everyone. Symptoms may also become less predictable as menstrual cycles change. PMS itself should end after menopause.

Will a hysterectomy cure PMS?

Removing the uterus alone does not stop the ovaries from cycling, so PMS can continue even though there are no periods. Removing both ovaries stops ovarian cycles but causes immediate surgical menopause and has important long-term effects. It is rarely used for PMS.

Can PMS cause depression or anxiety?

PMS can cause low mood or anxiety before a period. An existing depression or anxiety disorder can also worsen at that time. If symptoms continue throughout the month, are severe, or include hopelessness or suicidal thoughts, they need assessment rather than being assumed to be PMS.

Sources

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