

# THE PMDD PROJECT

**A GUIDE TO UNDERSTANDING PMDD**

# SO, WHAT ACTUALLY \*IS\* PMDD?

**PMDD** stands for Pre Menstrual Dysphoric Disorder.

Let's break that down...

## PRE MENSTRUAL

This is the phase before menstruation. Usually a week or two before bleeding.



## DYSPHORIC

Dysphoria is a mental state in which a person feels unhappy, uneasy, or dissatisfied



## DISORDER

A disruption to regular physical or mental functions



**PMDD affects roughly 1 in 20 AFAB\* individuals<sup>(1)</sup> who experience periods**

\*Assigned Female At Birth

**PMDD can be classed as a disability.**

Some people with PMS may meet the criteria – but even without PMDD, severe PMS symptoms can still have a serious and life-changing impact.

The key difference with PMDD is that symptoms are often intensely debilitating and can significantly affect a person's ability to function in daily life<sup>(2)</sup>, including work, education, relationships and self-care.

For some people, this means PMDD can meet the legal definition of a disability under the Equality Act 2010.

**Every. Single. Month.**

One of the hardest things about PMDD is how it changes your mood so drastically that you might feel like a completely different person compared to the rest of the month.

**Thoughts and feelings during this time can be so extreme that it's hard to recognise yourself.**

The confident, happy, or calm version of you from just a week ago can suddenly feel distant and out of reach. It's almost like your pre-period self is a stranger, and that shift can be really disorienting.

### **But it's not just about mood.**

PMDD can also cause physical symptoms like fatigue, bloating, headaches, and trouble sleeping<sup>(2)</sup>. The symptoms ease off once the period starts, sometimes immediately, but for those who experience it, PMDD can make that pre-period time really tough.

It's also important to know that not everyone with PMDD bleeds. People using the Mirena coil, or those who have had a hysterectomy but still have their ovaries, may still experience PMDD-symptoms because their hormone cycle is still happening, even without periods.

### **PMDD is not caused by a hormone imbalance.**

Individuals with PMDD typically have normal hormonal levels. Instead, it's about an individual's sensitivity to the natural hormonal changes that occur during the menstrual cycle<sup>(3)</sup>.

This is why a simple hormone fix, like birth control or supplements, may not work for everyone.

### **PMDD & PME**

PMDD is not the same as Premenstrual Exacerbation (PME).

PMDD means symptoms are most likely tied to the menstrual cycle. They appear in luteal phases and ease once hormones drop.

PME is when an existing condition (such as depression, anxiety, ADHD, autism, or bipolar) gets much worse before a period, but doesn't fully go away afterwards<sup>(4)</sup>.

Both are real. Both deserve support. And both are often misunderstood.

### **The good news?**

PMDD can be managed with the right support, whether through lifestyle changes, therapy, or medical treatments.

If your pre-period feels like a rollercoaster you can't control, it might be time to talk to someone about PMDD.

**YOU'RE NOT ALONE,  
AND HELP IS OUT THERE.**

# SYMPTOMS

PMDD can present a wide range of emotional, physical, and mental symptoms<sup>(2)</sup>. Recognising these symptoms is the first step to seeking a diagnosis<sup>(6)</sup>.

Here's a closer look at the key symptoms associated with PMDD.

## Mood-related Symptoms:

### Mood swings:

Sudden and intense emotional changes that can vary from extreme joy to deep sadness



### Irritability or anger:

Increased frustration or anger, often disproportionate to the situation, which can strain relationships



### Anxiety or tension:

Persistent feelings of anxiety or a sense of overwhelm that can affect daily activities or decision-making



### Depression or hopelessness:

Deep feelings of sadness or a sense of despair that may hinder motivation and enjoyment in life



### Difficulty concentrating:

Trouble focusing on or maintaining attention on tasks, which can interfere with work or personal responsibilities

## Physical Symptoms:

### Bloating:

Fullness or swelling in the abdomen.

### Fatigue:

Persistent tiredness or a lack of energy.

### Breast tenderness:

Sensitivity or pain in the breasts.



### Changes in sleep patterns:

Difficulty falling or staying asleep.



### Appetite changes:

Increased cravings or fluctuating eating habits.

## Additional Symptoms:

Low self-esteem

Suicidal ideation

Loss of interest in usual activities

Brain fog and poor memory

Paranoia or irrational thinking

Low sex drive

Heart palpitations

Vision changes

Painful menstruation

Numbness or heightened sensitivity  
in limbs

Acne and/or sensitive skin

Hot flushes and night sweats

Pelvic pressure

Muscle spasms

Back ache

Decreased coordination  
and/or dizziness

Symptoms may not be relevant to everyone and can vary significantly from person to person. Always consult with a healthcare professional for medical advice tailored to your individual circumstances.



WE'RE IN THIS  
TOGETHER

# CAUSES

Although the exact causes of PMDD are still being researched, experts believe it arises from a complex interaction of **hormonal, biological, and environmental factors**.

## Hormonal sensitivity

The primary cause of PMDD is thought to be an abnormal sensitivity to the natural fluctuations of sex hormones, particularly estrogen and progesterone, that occur during the menstrual cycle<sup>(3)</sup>.

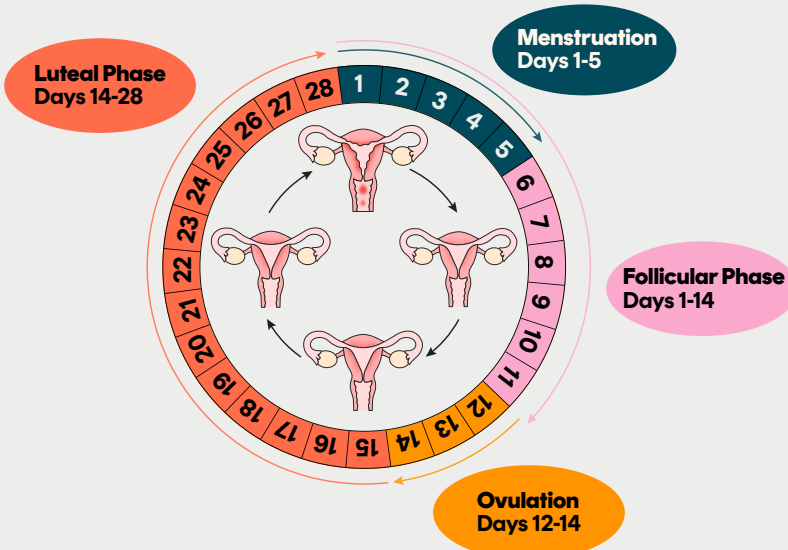
### Here's how:

#### Luteal phase:

After ovulation, levels of progesterone increase while estrogen drops. This phase, known as the luteal phase, is when PMDD symptoms typically arise<sup>(7)</sup>. For those with PMDD, it's not the hormone levels themselves that are the issue, but their body's extreme sensitivity to these hormonal changes.

#### Neurotransmitter Disruption:

These hormonal fluctuations affect the neurotransmitters in the brain<sup>(8)</sup>, particularly serotonin, which regulates mood, sleep, and emotions. People with PMDD are believed to have irregular serotonin responses during the luteal phase<sup>(9)</sup>, leading to the mood changes, anxiety, and depression characteristics of PMDD.



# CAUSES

## Neurodiversity

Some research and lived experience suggest that PMDD may be more common, or more intense, in neurodivergent people – including those who are autistic and have PMDD<sup>(6)</sup>. This may be because neurodivergent nervous systems can be more sensitive to change, stress, sensory input and emotional shifts, which can make monthly hormone changes harder to process.

This does not mean PMDD is “caused by neurodiversity”, but it may help explain why symptoms can feel especially overwhelming for some people.

## Genetic predisposition

**Family History:** Research suggests that people with PMDD often have a family history of mood disorders<sup>(3)</sup>, PMS, or PMDD, indicating a potential genetic predisposition. Variations in certain genes involved in hormone regulation and serotonin function may make some individuals more susceptible to PMDD.

## Sensitivity to Hormonal Changes<sup>(3)</sup>:

Studies have found that people with PMDD are more sensitive to hormone changes than those who don't experience the disorder. This heightened sensitivity may be inherited.

## Stress and environmental factors

**Chronic Stress:** Persistent stress can exacerbate PMDD symptoms. Stress impacts hormone production, particularly cortisol, which may amplify the body's sensitivity to normal hormonal shifts during the menstrual cycle.

## Trauma and Mental Health Conditions:

Individuals with a history of trauma, anxiety, depression, or other mental health conditions may have a heightened risk of developing PMDD. The overlap between PMDD and these conditions can worsen symptoms during the luteal phase.

# CAUSES

## Inflammation and nutritional factors

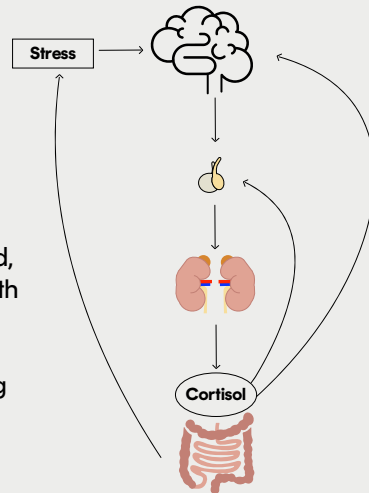
**Inflammation:** Emerging research suggests that inflammation<sup>(10)</sup> in the body may play a role in PMDD. Elevated levels of inflammatory markers have been observed in people with PMDD, which may interact with hormone sensitivity and worsen symptoms like fatigue and mood swings.

**Nutritional Deficiencies:** Imbalances or deficiencies in nutrients such as magnesium, calcium, and vitamin D have been linked to increased PMDD severity<sup>(11)</sup>. These nutrients are essential for maintaining proper hormone balance, neurotransmitter function, and reducing inflammation.

## Neuroendocrine dysregulation

### HPA Axis Dysfunction:

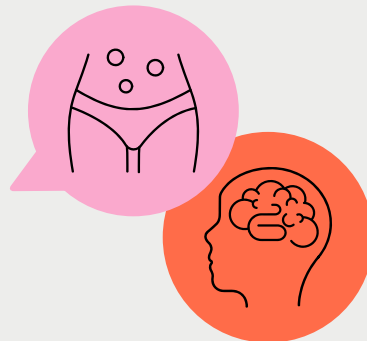
The hypothalamic-pituitary-adrenal (HPA) axis, which controls the body's response to stress and regulates mood, may function abnormally in people with PMDD<sup>(12)</sup>. Dysregulation in this system could exacerbate symptoms such as anxiety, fatigue, and depression during the luteal phase.



## Gut-brain connection

### Gut Health:

There is increasing evidence linking gut health with mental health, known as the gut-brain axis<sup>(11)</sup>. The balance of gut bacteria can influence serotonin production, immune response, and inflammation levels, all of which are factors in PMDD. Poor gut health might intensify symptoms or make the body more reactive to hormonal shifts.



# SOURCES

- <sup>(1)</sup> Riddell, J., & Matthews, L. (2025), PMDD Research Agenda 2023, University of the West of Scotland
- <sup>(2)</sup> NHS 111 Wales (n.d.), Premenstrual Dysphoric Disorder (PMDD), NHS Wales Health A–Z
- <sup>(3)</sup> National Centre for Mental Health (NCMH) (n.d.), Premenstrual Dysphoric Disorder (PMDD), NCMH
- <sup>(4)</sup> (n.d.), Premenstrual Exacerbation: Symptoms and Treatment, (Online health resource)
- <sup>(5)</sup> Imhof, J. (n.d.), Neurodiversity: The Intersection of Autism, ADHD, and PMDD, (Professional blog/article)
- <sup>(6)</sup> National Institute for Health and Care Excellence (NICE) (n.d.), Diagnostic Criteria for Premenstrual Dysphoric Disorder, CKS
- <sup>(7)</sup> Mind (n.d.), Premenstrual Dysphoric Disorder (PMDD), Mind UK
- <sup>(8)</sup> Samphire Neuroscience (n.d.), Hormonal Fluctuations and Their Role in PMS & PMDD, Samphire Neuroscience
- <sup>(9)</sup> (n.d.), Increase in Serotonin Transporter Binding in Patients With Premenstrual Dysphoric Disorder Across the Menstrual Cycle, ScienceDirect
- <sup>(10)</sup> (n.d.), Is Premenstrual Syndrome Associated with Inflammation, Oxidative Stress and Antioxidant Status?, PMC
- <sup>(11)</sup> (n.d.), Impact of Nutritional Diet Therapy on Premenstrual Syndrome, PubMed
- <sup>(12)</sup> Progressive Therapeutic Collective (n.d.), Understanding the HPA Axis and Its Role in Premenstrual Dysphoric Disorder (PMDD), Progressive Therapeutic Collective

# FURTHER READING

Cohen LS, Soares CN, Otto MW, Sweeney BH, Liberman RF, Harlow BL. Prevalence and predictors of premenstrual dysphoric disorder (PMDD) in older premenopausal women. The Harvard Study of Moods and Cycles. *J Affect Disord.* 2002;70(2):125-32. doi:10.1016/s0165-0327(01)00458-x

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References available upon request.

Reg Charity No. 1208032