



# Is It PMS, Depression or PMDD?

by BRITTANY DA SILVA

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## What is PMDD?

Premenstrual dysphoric disorder, or PMDD, is often referred to as a severe form of premenstrual syndrome (PMS). Unlike PMS, PMDD only occurs in about 3% to 8% of menstruating people.

Symptoms associated with PMDD are debilitating and significantly interfere with a person's daily life, while the symptoms of PMS are an unfortunate but common occurrence in the lives of many menstruating people.

## What Causes PMDD?

Premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD) share many similarities, but PMDD is much more severe. Surprisingly, the precise cause of both PMS and PMDD is largely unknown.

Experts believe that premenstrual dysphoric disorder results from the interaction of hormones and neurotransmitters. The hormones produced by the ovaries at different stages in the menstrual cycle – including estrogen and progesterone – interact with the neurotransmitters in the brain.

Neurotransmitters, as the name would suggest, are responsible for transmitting messages between nerve cells in the brain. The ovarian hormone levels in people with PMDD are normal, but it is the brain's response to these fluctuating hormone levels that are abnormal in cases of premenstrual dysphoric disorder.

Although stress has been associated with both PMS and PMDD, it is not considered to be the cause. Stress is more likely to result from the symptoms of PMS or PMDD.

## PMDD and Serotonin

Although experts have yet to identify the actual cause of premenstrual dysphoric disorder, it is suggested that they may be the brain's abnormal response to a person's fluctuation of normal hormones during the menstrual cycle, which leads to a deficiency in serotonin.

The neurotransmitter serotonin is often associated with well-being and happiness and is used to transmit messages between nerve cells. Serotonin also helps regulate the body's sleep-wake cycles and internal clock.

It is believed that serotonin plays a part in appetite and emotions, as well as motor, cognitive and autonomic functions, which may point to one of the reasons that these bodily functions are all affected by the symptoms of PMDD.

Serotonin is most notably linked to mood balance or happiness. Low levels of serotonin have been connected to depression.

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People who have had a personal or family history of postpartum depression, mood disorders or depression have a higher chance of experiencing premenstrual dysphoric disorder.

## **Do You Have PMDD or Depression?**

Is it depression or premenstrual dysphoric disorder? In many cases, PMDD is misdiagnosed as major depression or other mood disorders. This is because PMDD causes severe impairment in quality of life, which can be equivalent to post-traumatic stress disorder (PTSD), major depressive disorder and panic disorder.

Some people with PMDD spend half of their lives suffering from this disorder, continually dealing with this level of impairment on a monthly basis. Premenstrual dysphoric disorder is biologically different than major depression, but there is a subset of people who experience both PMDD and depression.

One of the major distinctions between PMDD and depression concerns the individual's biological response to stress, as well as pain sensitivity and pain mechanisms.

People with chronic major depression have a heightened biological response to stress, which causes them to release more stress hormones, including cortisol. In contrast, people with premenstrual dysphoric disorder react conversely, with blunted stress responses.

There are also notable differences between people with PMDD who have experienced depression and those who have PMDD but have never been depressed.

People with PMDD and prior depression have lower cortisol levels and a greater sensitivity to pain than people with prior depression, but no history of premenstrual dysphoric disorder. These differences do not exist between PMDD and non-PMDD people who have no history of depression.

Although PMDD and depression are biologically different from one another, there are special considerations to be made with regards to people who have PMDD, as well as a history of depression, with respect to their response to pain and stress hormones.

## **PMDD vs. PMS Symptoms**

While the two conditions share almost the same name, PMDD and PMS do have different symptoms.

### **Common Symptoms of PMS**

Most people who reach reproductive age will have to deal with the symptoms of premenstrual syndrome (PMS) at some point in their lives, if not consistently every month. Many symptoms differ between individuals, and as many as three out of every four menstruating people have experienced some form of PMS.

The common symptoms of PMS can be broken down into two distinct categories: emotional/behavioral and physical. The following covers the more common emotional and behavioral signs and symptoms of PMS:

- Depressed mood.
- Mood swings.
- Irritability or anger.
- Tension and anxiety.
- Appetite changes and food cravings.
- Insomnia.
- Crying spells.
- Poor concentration.
- Changes in libido.

The most common physical signs and symptoms of PMS include the following:

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- Headaches.
  - Fatigue.
  - Abdominal bloating.
  - Breast tenderness.
  - Acne flare-ups.
  - Joint and muscle pain.
  - Weight gain (often due to fluid retention).
  - Constipation or diarrhea.
  - Alcohol intolerance.

Although some of these symptoms can be a hindrance to your daily life, most are able to cope with PMS, as it is a common occurrence for most menstruating people. Luckily, these symptoms often only last for a few days per month at most.

### **Common Symptoms of PMDD**

The symptoms associated with premenstrual dysphoric disorder are challenging to cope with. While the symptoms of PMS may be irritating, the symptoms of PMDD are completely debilitating.

The signs and symptoms of PMDD often closely resemble those of PMS but are elevated to an intolerable level. Most individuals who suffer from PMDD cannot function at their normal capacity while experiencing these symptoms, which include:

- Severe fatigue.
- Mood changes, including irritability, depression and anxiety.
- Heart palpitations.
- Coordination abnormalities.
- Forgetfulness and difficulty concentrating.
- Paranoia and self-image issues.
- Headaches and migraines.
- Worsening of skin conditions, including acne and eczema.
- Dizziness and fainting.
- Sleeplessness.
- Fluid retention.
- Breast tenderness.
- Hot flashes.
- Muscle spasms, numbness and tingling in extremities.
- Abdominal bloating and gastrointestinal upset.
- Increased appetite.
- Decreased urine production.
- Respiratory complaints, including allergies and infections.
- Decreased libido.
- Painful menses.
- Vision changes and eye complaints.

Many signs and symptoms of PMDD first present the week before menstruation and will resolve within the first few days of onset. PMDD is not as common as PMS and often requires medical treatment.

### **How to Diagnose PMDD**

As the symptoms of PMDD are similar to the signs and symptoms of many other conditions, it can be difficult to diagnose. PMDD must initially be differentiated from other physical and psychological conditions.

Conditions such as mood and anxiety disorders, as well as thyroid disease, can produce the same or similar symptoms to premenstrual dysphoric disorder.

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In order to ensure accuracy in diagnosis, healthcare providers will often perform a physical exam, obtain a medical history and order tests that will rule out other conditions before making a diagnosis.

If PMDD is still a concern, many people will use a symptom chart or calendar to determine the correlation between their symptoms and menstrual cycle.

In doing so, a person is required to record their symptoms every day for a period of time. This chart is compared to their menstrual cycle to illustrate the relationship between their symptoms and cycle.

The American Psychiatric Association suggests that the symptoms of PMDD must be present for at least two consecutive menstrual cycles before a PMDD diagnosis can be made. These guidelines also state that PMDD symptoms must present a week before the onset of menses, interfere with the activities of daily living and resolve within the first few days of a person's period starting.

In order to be diagnosed with premenstrual dysphoric disorder, a person must present with at least one of these symptoms:

- Feelings of sadness or hopelessness.
- Mood changes.
- Feelings of anger or irritability.
- Feelings of anxiety or tension.

Other common symptoms present upon diagnosis include:

- Difficulty concentrating.
- Fatigue.
- Changes in appetite.
- Apathy in routine activities and/or social withdrawal.
- Problems sleeping (insomnia or excessive sleeping).
- Feeling overwhelmed or a lack of control.

In order to reach a diagnosis of PMDD, a person must demonstrate at least five or more of the above-noted symptoms.

## **PMDD Treatment Options**

PMDD is not nearly as common as PMS and as the symptoms experienced are much more severe, premenstrual dysphoric disorder requires treatment. If you are experiencing difficult physical or emotional symptoms around the time of your period's onset, you should speak to your doctor about treatment options.

Symptoms are most often experienced during the second half of a person's menstrual cycle, and for some, these symptoms can last until menopause. As symptoms can be long-lasting, it is advisable to seek treatment as soon as possible.

If any of the depressive symptoms of PMDD bring up any thoughts of suicide or suicidal behaviors, seek medical attention immediately. This is a medical emergency that you cannot wait to act upon.

## **Medications for PMDD**

There are a variety of treatment options available, including a number of medications that have been proven to make a difference. These medications include:

- SSRI antidepressants (fluoxetine, sertraline, paroxetine and citalopram).
- Oral contraceptives.
- Gonadotropin-releasing hormone analogs (leuprolide, nafarelin and goserelin).

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- Danazol (Danocrine).
  - Anti-inflammatory medications.

Selective serotonin reuptake inhibitor (SSRI) antidepressants can be effective in managing the symptoms of PMDD, as these medications regulate the levels of serotonin in the brain. SSRIs that have been proven to work in the treatment of PMDD include Prozac, Sarafem, Zoloft, Paxil and Celexa.

As many as 75% of people with premenstrual dysphoric disorder have reported that SSRI medications alleviated their symptoms.

Unfortunately, as with most medications, there are side effects to be aware of. Side effects can occur in up to 15% of people and include nausea, anxiety and headaches.

SSRIs may be prescribed to be taken continuously, or only during the second half of a person's menstrual cycle.

As oral contraceptives are designed to interfere with ovulation and the production of the hormones involved, these medications have also been used to manage premenstrual dysphoric disorder. Taking birth control pills can suppress ovulation and regulate a person's menstrual cycle.

Gonadotropin-releasing hormone analogs (GnRH analogs) are designed to suppress estrogen production by the ovaries, which inhibits the secretion of regulatory hormones from the pituitary gland. This causes a person's period to stop, as it mimics menopause.

GnRH analogs that have been proven to treat premenstrual dysphoric disorder include Lupron, Synarel and Zoladex. Due to the body's lack of estrogen, the side effects of taking these medications include:

- Hot flashes.
- Mood changes.
- Irregular vaginal bleeding.
- Fatigue.
- Vaginal dryness.
- Loss of bone density (osteoporosis).

In order to mitigate these side effects, your doctor may choose to add small amounts of estrogen and progesterone into your body over time.

Taking Danazol (Danocrine) will cause your body to produce high levels of androgen, which is a male-type hormone, and low levels of estrogen. This will interfere with ovulation and overall estrogen production, thus treating the symptoms of premenstrual dysphoric disorder.

There is a significant risk of side effects when taking Danazol, as up to 75% of people experience side effects including:

- Decreased breast size.
  - Weight gain.
  - Oily skin.
  - Acne.
  - Hot flashes.
  - Mood changes.
  - Changes in libido.
  - Headaches.
  - Deepening of the voice.
  - Hirsutism (male pattern hair growth).
  - Edema.
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Edema involves the accumulation of excessive fluid in the tissues throughout the body, which then causes swelling. While edema is most often seen in the legs, feet, ankles and/or hands, but can occur anywhere in the body.

Most side effects of Danazol are reversible, aside from the deepening of the voice. However, it may take months to see these changes take effect. Due to the high risk of side effects, Danazol is usually only used when other medications have failed to treat PMDD.

If you are interested in any of the medications above, contact your general practitioner to learn more about managing PMDD and which medications may be right for you.

### **Natural Treatments for PMDD**

Aside from medications, there are also natural extracts and supplements that have been known to make a difference in the treatment of premenstrual dysphoric disorder. These natural treatment methods include:

- Chasteberry extract.
- Calcium.
- Vitamin B6.
- Magnesium.
- Vitamin E.

In some studies, chasteberry extract (agnus castus fruit) has been effective in decreasing PMS symptoms and, therefore, it may alleviate some symptoms of PMDD. The other dietary supplements listed have also reduced the symptoms of PMS and PMDD in a few studies.

Although these treatment options are natural and widely available, contact your general practitioner before introducing any new supplements into your daily routine.

### **Lifestyle Changes to Help PMDD**

There are many lifestyle changes that people can make in order to assist in coping with PMDD.

#### **PMDD and Diet**

Dietary changes can make a difference in the treatment of premenstrual dysphoric disorder. Symptoms may be reduced by decreasing your intake of sugar, salt, caffeine and alcohol, as well as increasing your intake of protein and carbohydrates.

There are dietary plans, such as the *cycle diet*, which has been developed to manage the symptoms of PMS and PMDD specifically. This diet introduces simple nutritional changes for improved reproductive health, as well as relief from the symptoms of PMS/PMDD.

The cycle diet is based on the two phases of the female reproductive cycle: the follicular Phase (days 1 to 14) and the luteal phase (days 15 to 28).

Most people experience the symptoms of PMS or PMDD during the second half of their menstrual cycle (the luteal phase). It is during the Luteal Phase that estrogen and progesterone levels will hit their peak, with ovulation occurring around day 13 to 14.

Eating a lot of saturated fat and excessive animal protein during the luteal phase can be damaging to your liver, kidneys and overall well-being. Drinking alcohol will exacerbate these issues and should also be avoided.

During the luteal phase, the cycle diet stresses the importance of feeding your body the nutrients it needs when it needs them. These nutrients include:

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- Thiamin.
  - Riboflavin.
  - Niacin.
  - Folate.
  - Vitamin B6.
  - Vitamin B12.
  - Calcium.
  - Vitamin D.
  - Magnesium.
  - Zinc.

When you are deficient in any of the above-noted nutrients during the luteal phase, you are much more likely to experience the symptoms of PMS and PMDD.

### **Exercise and Stress Management**

Exercise and stress management techniques have also proven to be helpful in the management of premenstrual dysphoric disorder.

The cycle diet also points to the importance of balanced nutrition, sleep, exercise and stress management, as all of these factors work together to decrease the symptoms of PMS and PMDD.

The stress hormone cortisol is naturally lower during the follicular phase, unless you lead a particularly stressful life. The cycle diet identifies a list of *stress foods* that should only be consumed during the follicular phase (if ever), as your body must go through extremes to metabolize them.

Stress foods, as identified by the cycle diet, include red meat, soda made with high fructose corn syrup, alcohol and highly-processed, high-glycemic food.

By choosing a diet high in fat and animal protein, while drinking alcohol, your liver must work hard to metabolize excess protein and toxins. This will lead to a buildup of excess estrogen, which will increase your chances of experiencing the symptoms of PMS and PMDD.

Living a life full of fast food, alcohol, sugar and no exercise will not only lead to poor physical and mental health, but the increase of excess estrogen in your body will worsen the symptoms of PMDD. Maintaining a healthy diet and regular exercise is an important step towards the management of PMDD.

### **Talk to Your Doctor**

Before you make any changes to your diet or lifestyle, talk to your general practitioner about all of the options available to you. Together, you can weigh the pros and cons of each, while keeping track of which treatment options made a difference and those that did not work.

You do not have to live with the debilitating symptoms of premenstrual dysphoric disorder every month. With all of the treatment options available, it is only a matter of discovering what options – or what combination of options – will produce results.