

# MODERN MANAGEMENT OF Premenstrual syndrome (PMS)

**P**remenstrual syndrome (PMS) is a common disorder, and many affected women will end up in a gynaecologist's office. Even a cursory review of the subject will reveal a lack of consensus concerning the aetiology of PMS and its causes. However, there do appear to be at least three components to the aetiology of PMS:

- a brain component
- an ovulatory menstrual cycle
- psychosocial factors and other factors

**Women who suffer from severe PMS commonly date their problems from a bout of postnatal depression. Also, they typically have depressive side effects from progestogens such as medroxyprogesterone acetate, norethisterone and levonorgestrel. The observation that SSRIs are the most effective medical treatment for PMS also strongly confirms the brain component of this disorder.**

Ovulation seems to be a permissive component as PMS is not found during physiological anovulatory states such as pregnancy, prepuberty and after menopause. However, studies have failed to find a deficiency or excessive amount of a particular reproductive hormone to be causal for PMS.

Psychosocial factors can be important aggravators of PMS. Not surprisingly, stress at work or at home usually aggravates PMS as well as the presence of concomitant medical problems such as menorrhagia. Treating these problems often improves PMS symptoms.

There is no definitive diagnostic test but, like making a diagnosis of depression, the symptomatology of PMS is very distinctive and so a diagnosis is usually straightforward. The essence of the diagnosis of PMS is that the symptoms come and go at precisely the same time of the menstrual month.

It is also important to note that a number of medical conditions appear to be worsened during the premenstrual phase. These include epilepsy, genital herpes, diabetes, asthma, angina and depression. The initial treatment approach should be to treat the primary condition. However, often the premenstrual aggravation of the condition can be improved by using the treatments outlined below for PMS.

## Confirming a diagnosis of PMS

The most popular definition of PMS is that of the American College of Obstetrics and Gynecology (ACOG) (see Table 1).

The Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) has similar criteria for the diagnosis of premenstrual dysphoric disorder (PMDD). This identifies women with PMS who have more severe emotional symptoms.

One simple approach in clinical practice is to ask the patient to record her worst three symptoms at the end of every day (rating them from nil to severe). An example of such a chart shown below:

Day of cycle	Mood swings	Breast soreness	Headache
1	0	0	Moderate
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	
...			
24	Severe	Moderate	0
25	Severe	Moderate	0
26	Severe	Moderate	0
27	Severe	Moderate	Severe

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## Treatments

### Natural Therapies

A number of mineral/vitamin supplements have been shown in randomised controlled trials (RCTs) and even meta-analyses to be useful treatments for PMS. These are summarised in Table 2. It should be noted that these treatments need to be taken on a daily basis.

Trials have shown that Evening Primrose oil is really only useful for mastalgia. Premular ([www.flordis.com.au](http://www.flordis.com.au)) is an extract of the agnus castus (*Vitex agnus castus*) fruit and has been shown to be superior to placebo in an RCT published in the *British Medical Journal*. It was particularly effective for mood disorder, anger, headache, breast fullness and bloatedness. It is important to note that herbal extracts are complex mixtures of chemicals, so the results of this trial cannot be extrapolated to other agnus castus products. St John's wort extract is also been shown to be effective for depression, mild anxiety and PMS. The most tested St John's wort extract available in Australia is called Remotiv ([www.flordis.com.au](http://www.flordis.com.au)).

### Drug Therapies

Progesterone and progestogens are commonly prescribed for PMS. However, at least one large meta-analysis (Wyatt *et al*) has shown that these therapies are not effective treatments for PMS. In fact, many women who suffer from PMS develop depressive side effects from the commonly used progestogens. There is some evidence that the newer contraceptive pills, such as Yasmin, and perhaps Marvelon may help some women who suffer from PMS. There is little doubt that the most effective drug treatments for PMS are the SSRIs. There are now a number of meta-analyses showing their effectiveness, whether taken continuously or cyclically. If the patient knows exactly when her symptoms occur then the drug may be started two days before the onset of symptoms and then ceased at the onset of menstruation. The most studied SSRI is Fluoxetine (Prozac, Lovan). Common start-up side-effects include nausea, constipation and headaches. These often, but not always, pass with time.

### Surgical treatments

Hysterectomy is not an effective treatment of PMS as the symptoms relate to the ovarian cycle. However, if the patient is considering a hysterectomy (for example, for menorrhagia due to fibroids) and she also suffers from PMS then serious consideration should be given to removing the ovaries at the time of operation, and then giving oestrogen 'add back therapy', perhaps as an oestradiol patch or implant.

### Conclusions

The key to the diagnosis of PMS is that the symptoms should come and go at the same time of the menstrual cycle. The diagnosis is usually confirmed using simple symptom and menstrual charts. Fortunately, a number of effective natural as well as pharmacological treatments are now available to help women who are suffering from the symptoms of PMS.

Table 1

### ACOG diagnostic criteria for PMS

PMS can be diagnosed if the patient reports at least one of the following affective and somatic symptoms during the five days before menses in each of the three prior menstrual cycles\*:

#### Affective

- Depression
- Angry outbursts
- Irritability
- Anxiety
- Confusion
- Social withdrawal

#### Somatic

- Breast tenderness
- Abdominal bloating
- Headache
- Swelling of extremities

\* these symptoms are relieved within four days of the onset of menses, without recurrence until at least day 13. The symptoms are present in the absence of any pharmacological therapy, hormone ingestion, or drug or alcohol use. The symptoms occur reproducibly during two cycles of prospective recording. The patient suffers from identifiable dysfunction in social or economic performance.

Table 2

### Natural therapies that have positive evidence for the treatment of PMS

- Vitamin B6 in doses up to 100 mg daily
- Calcium 1,000 to 1,200mg per day
- Magnesium 400mg daily
- Evening Primrose oil 3000 mg daily
- Premular (an extract of the berries from the chaste tree)
- St John's wort extract

[RECOMMENDED READING ON PAGE 28]

# MODERN MANAGEMENT OF PREMENSTRUAL SYNDROME (PMS)

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## Recommended reading

Gimmick PW, Wyatt KM., Jones PW, O'Brien, PMS. Efficacy of selective serotonin reuptake inhibitors in premenstrual syndrome: A systematic review. *Lancet*, 2000; 356:1131 - 36.

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Wyatt K., Dymock, P, Jones P, Obhrai M, O'Brien, S. Efficacy of progesterone and progestogens in management of premenstrual syndrome: Systematic review. *BMJ*, 2001; 323: 1- 8.

Wyatt K., Dymock, P, Jones P, Obhrai M, O'Brien, S. Efficacy of vitamin B6 in the treatment of premenstrual syndrome: Systematic review. *BMJ*, 1999; 318:1375 -81.