
Understanding PMS and Your Cycle

PMS (premenstrual syndrome) is a medical condition caused by the body's response to a normal menstrual cycle. The menstrual cycle is brought on by changing levels of hormones (chemical messengers) in the body. In some women, normal hormone changes are linked to decreases in serotonin. This is a brain chemical that improves mood. These changes lead to PMS symptoms each month.

Gender words are used here to talk about anatomy and health risk. Please use this information in a way that works best for you and your provider as you talk about your care.

The menstrual cycle

During the menstrual cycle, a series of hormone changes prepare a woman's body for pregnancy. The ovaries make hormones, which include estrogen and progesterone. During the cycle, these hormone levels change. This causes the uterus lining to thicken. Hormone changes also lead to the release of an egg (ovulation). If a woman doesn't become pregnant, her body sheds the thickened lining and the egg during the menstrual period. For many women, the menstrual cycle lasts 4 weeks (28 days). Some women have shorter cycles. Others have longer ones. No matter how many days your cycle is, you can have PMS only if you ovulate.

The PMS cycle

No one knows why some women have PMS and others don't. But PMS symptoms are closely linked to changing levels of estrogen, serotonin, and progesterone:

- Estrogen rises during the first half of the menstrual cycle and drops during the second half. In some women, serotonin levels stay mostly steady. But in women with PMS, serotonin drops as estrogen drops. This means serotonin is lowest in the 2 weeks before the period. Women with low serotonin levels are likely to have PMS symptoms.
- Progesterone can have a calming effect on the body. This can ease physical symptoms caused by the body's monthly changes. In women with PMS, progesterone may not have this calming effect. This may make symptoms more severe.

Some women have a severe form of PMS called premenstrual dysphoric disorder (PMDD). Symptoms include severe depression, irritability or anger, and anxiety.

Common symptoms of PMS

Physical symptoms

You may have some or all of the following:

- Bloating (retaining water)
- Breast soreness
- Food cravings
- Muscle aches

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- Swollen hands and feet
 - Appetite changes
 - Headache
 - Feeling tired
 - Skin problems
 - Belly (abdominal) pain

Emotional symptoms

You may have some or all of the following:

- Mood swings
- Depression
- Crying spells
- Grouchiness
- Easily upset
- Wanting to spend time alone
- Forgetting things
- Having trouble focusing
- Anxiety
- Having trouble sleeping
- Angry outbursts
- Confusion
- Changes in sexual desire