

Menstruation - amenorrhoea

Amenorrhoea means the absence of the menstrual period. Apart from during childhood, pregnancy, breastfeeding or menopause, the absence of the menstrual period may indicate a problem with the reproductive system. One of the most common causes of amenorrhoea is hormonal disturbance. The interplay of female sex hormones can be disrupted by a wide range of events, including diseases of the reproductive organs, weight loss, emotional stress or overexercising. Frequently, there is no worrying cause found.

Primary and secondary amenorrhoea

Amenorrhoea is divided into two categories:

- **Primary amenorrhoea** - menstruation hasn't begun by 14 years of age and the young woman shows no secondary sexual characteristics (such as developing breasts and pubic hair), or menstruation hasn't begun by 16 years of age, even though the young woman has secondary sexual characteristics.
- **Secondary amenorrhoea** - established menstruation has ceased for six months or for a length of time equivalent to a total of at least three of the previous cycle intervals.

The menstrual cycle

The hypothalamus and pituitary glands in the brain interact with each other to control the menstrual cycle. The pituitary gland produces chemicals that stimulate the ovaries to produce the two female sex hormones - oestrogen and progesterone. These hormones thicken the lining of the womb (uterus) to prepare for a possible pregnancy. When pregnancy doesn't occur, hormone levels drop and the lining of the womb falls away. This is called a period, or menstruation. The cycle then repeats. Disorders of the hypothalamus, pituitary gland or ovaries can disrupt menstruation and bring about amenorrhoea.

Disorders of the hypothalamus

A variety of factors can cause the hypothalamus to malfunction and trigger amenorrhoea, including:

- Emotional stress
- Weight loss
- Excessive physical exercise
- Some antipsychotic medications (major tranquillisers)
- Disorders of the endocrine system, such as hypothyroidism (underactive thyroid gland).

Some women are particularly susceptible to amenorrhoea caused by stress and weight loss.

Other disorders

Other disorders that can cause amenorrhoea include:

- **Polycystic ovary syndrome** - the ovaries develop clusters of blister-like cysts. Associated symptoms include irregular periods and hirsutism (excessive hairiness).
- **Hyperandrogenaemia** - the reproductive system is influenced by high levels of male sex hormones. This can be caused by ovarian or adrenal tumours, or certain congenital disorders.
- **Hyperprolactinaemia** - an increase of the hormone prolactin caused by overactivity of, or a tumour on, the pituitary gland.
- **Ovarian failure** - or early menopause. Insufficient oestrogen levels cause ovulation to fail, which stops the menstrual cycle.
- **Abnormalities of the vagina** - such as a sealed hymen, which prevents the menstrual blood from leaving the vagina. This is a rare condition and symptoms include abdominal distension and delayed start to periods and cyclical abdominal pain.

Diagnosis

Diagnosing the cause of amenorrhoea depends on a number of tests, including:

- **Pregnancy tests** - either urine or blood tests.
- **Physical examination** - to determine overall health and the presence of secondary sexual characteristics.
- **Medical history** - including gynaecological history and contraceptive methods.
- **Hormone tests** - to check the functioning of the hypothalamus, pituitary gland and ovaries.
- **Other scans** - including CT scans and ultrasounds of the reproductive system.

Treatment options

Treatment for amenorrhoea depends on the cause. If extreme weight loss and excessive exercise are to blame, then treatment will focus on encouraging the woman to maintain a healthier body weight. Other treatment options may include managing the underlying disorder or using hormone replacement therapy (such as the combined oral contraceptive pill) to boost natural hormone levels.

Where to get help

- Your doctor
- Family planning clinic
- Gynaecologist.

Things to remember

- Amenorrhoea means absence of the menstrual period.
- The most common cause is hormone disruption.
- The hormones can be disrupted by emotional stress, extreme weight loss, excessive exercise and diseases of the reproductive system.

This page has been produced in consultation with, and approved by:

Family Planning Victoria

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