

## Menstruation - amenorrhoea

Amenorrhoea means the absence of menstrual periods. Apart from during childhood, pregnancy, breastfeeding or menopause, the absence of periods might be due to a problem with the reproductive system. One of the most common causes of amenorrhoea is hormonal disruption.

The functioning of the female sex hormones oestrogen and progesterone can be disrupted by a range of factors, including certain reproductive disorders, weight loss, weight gain, emotional stress or excessive exercise.

### Primary and secondary amenorrhoea

Amenorrhoea is divided into two categories:

- **Primary amenorrhoea** – periods haven't started by 14 years and there are no signs of other sexual characteristics (such as developing breasts and pubic hair), or periods haven't started by 16 years, even though other sexual characteristics have developed.
- **Secondary amenorrhoea** – periods have stopped for around six months.

### The menstrual cycle

Brain structures known as the hypothalamus and pituitary gland interact with each other to control the menstrual cycle. The pituitary gland produces chemicals that stimulate the ovaries to produce oestrogen and progesterone. These hormones thicken the lining of the uterus (womb) to prepare for a possible pregnancy.

When pregnancy doesn't happen, hormone levels drop and the lining of the uterus falls away. This is called a period or menstruation. The cycle then repeats. Disorders of the hypothalamus, pituitary gland or ovaries can disrupt menstruation, causing amenorrhoea.

### Disorders of the hypothalamus

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

- Emotional stress
- Weight loss
- Excessive physical exercise
- Certain medications used to treat mental health conditions
- 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 ovarian syndrome** – the ovaries develop clusters of blister-like cysts. Symptoms include irregular periods and excessive hair growth. Women with polycystic ovarian syndrome are particularly prone to amenorrhoea when they gain weight.
- **Hyperandrogenaemia** – high levels of male sex hormones which can affect the reproductive system. This can be caused by ovarian or adrenal tumours or certain conditions present at birth.

- **Hyperprolactinaemia** – high levels of the breastfeeding hormone prolactin. Levels rise due to over-activity of, or a tumour on, the pituitary gland.
- **Ovarian failure** – or early menopause. Low levels of oestrogen cause ovulation to fail, which stops the menstrual cycle.
- **Abnormalities of the vagina** –such as a sealed hymen, which prevents menstrual blood from leaving the vagina. This is a rare condition and symptoms include a swollen abdomen, delayed periods and abdominal pain.

## Diagnosis of amenorrhea

For a doctor to diagnose amenorrhoea, all other possible causes, such as certain reproductive disorders, need to be eliminated first. Tests can include:

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

## Treatment options

Treatment for amenorrhoea depends on the cause. If the cause is extreme weight loss and excessive exercise, then treatment will focus on encouraging the woman to maintain a healthier body weight.

Other treatment options can include weight loss (if overweight) and managing the underlying disorder. Hormone replacement therapy (such as the combined oral contraceptive pill) will usually cause periods to return, but will not treat any underlying cause.

## Where to get help

- Your doctor
- Gynaecologist
- Family Planning Victoria Tel. 1800 013 952 or (03) 9257 0100.

## Things to remember

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

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

Family Planning Victoria

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