

# Amenorrhoea

Amenorrhea is the absence of menstruation (at least two cycles) in a woman during the period of sexual maturity. Physiological is amenorrhea during childhood, pregnancy, lactation and in the postmenopausal period.<sup>[1]</sup>

## Division according to age

### 1. Primary amenorrhea

- if menarche does not occur before the age of 15;
- causes - mainly organic - agenesis of the uterus, canalization disorder of the Müller ducts, hypoplasia of the parents;
- chromosomal abnormalities leading to gonadal dysgenesis (30%), congenital developmental defects (19%), hypothalamohypophyseal insufficiency (17%), hyperprolactinemia (17%);
- in a third it is genetics - dysgenesis of the gonads, etc.;
- we have to differentiate between so-called **cryptomenorrhea** - endometrial shedding occurs, but is retained in the uterus or vagina, i.e. with hymenal closure (**hematocolpos**), with cervical closure (**hematometra**).

### 2. Secondary amenorrhea:

- Missing menstruation for 3 months or longer in a woman who has been menstruating until now;
- most common causes - secondary: hypothalamo-pituitary (61%), hyperprolactinemia (18%), ovarian disorders (9%), uterine disorders (5%)

## Division of amenorrhea by cause

### Hypothalamic amenorrhea

- Hypothalamic disorder is the most common cause of amenorrhoea.

1. **Primary:** due to CNS disease in childhood (encephalitis, meningitis), endocrinological syndromes (Fröhlich syndrome) - obesity, hypogonadism, gonadal dysgenesis.
2. **Secondary:** usually emotional, referred to as stress amenorrhea (was observed en masse during World War II in women prisoners), also after CNS diseases, after trauma, or part of psychiatric syndromes.

### Pituitary amenorrhea

- Given pituitary insufficiency.

1. **Primary** - dwarfism, gigantism, tumors.
2. **Secondary** - postpartum necrosis (Sheehan's syndrome), Cushing's disease, etc.

### Ovarian amenorrhea

1. **Primary** - Turner syndrome, Stein-Leventhal syndrome (polycystic ovary).
2. **Secondary** - hormonally active tumor (arrhenoblastoma) secreting androgens, conditions after ovariectomy.

### Uterine amenorrhea

1. **Primary** - a consequence of uterine agenesis and some congenital developmental defects.
2. **Secondary** - Asherman's syndrome (sympyosis of the uterine cavity - adhesions of the walls after inflammation or abrasion of the endometrium).

### Amenorrhea from extragenital causes

- Part of various endocrinopathies (hyperplasia of the adrenal cortex, Addison's disease, hypo- and hyperthyroidism, severe forms of DM).

## Diagnostics

1. **Primary** - we are looking for congenital developmental defects;
2. **Secondary:** replacement therapy:
  - we must rule out pregnancy;
  - careful anamnesis, examination of hormones (gonadotropins, estrogens, progesterone and prolactin), vaginal cytology, measurement of basal temperatures;
  - it is important to distinguish between central origin and peripheral origin - this is what functional tests are for.

## Therapy

1. **Primary:** for central disorders – replacement therapy;
2. **Secondary:** replacement therapy;
  - if prolactin is elevated - we perform an MRI of the saddle, we administer bromocriptine or lisuride.

## Links

### Related Articles

- Cyclic bleeding disorders (Czech)
- Menstrual Cycles
- Cyclical changes in the female body
- Dysmenorrhea

### Reference

1. ROB, Lukáš – MARTAN, Alois – CITTERBART, Karel. *Gynekologie*. 2. edition. Praha : Galén, 2008. 390 pp. pp. 86. ISBN 978-80-7262-501-7.

### Cited Literature

- ČECH, Evžen, et al. *Porodnictví*. 2. edition. Praha : Grada, 2006. ISBN 80-247-1303-9.
- Quadruplets of developed questions according to the study materials of J. Beneš, L. Mikšík, e-learning and the book Gynecology and Obstetrics (Martius 2005).