

# Anorexia Nervosa

**Anorexia nervosa** is a fairly common psychiatric illness that mainly affects teenage girls, but it can also occur in boys. Anorexia nervosa has devastating effects on the adolescent organism and can lead to serious disruption of physical and psychological development. As a result, extreme starvation can lead to the death of the sufferer, and death as a result of anorexia is by no means exceptional.

Anorexia nervosa is a mental illness that affects the body in a serious way.<sup>[1]</sup>

**Diagnostic criteria for anorexia nervosa** (MKN-10: F50 (<https://mkn10.uzis.cz/prohlizec/F50>)):

1. Body weight maintained at least 15% below predicted weight (whether reduced or never reached) or Quetelet's Body Mass Index (BMI):  $\text{weight (kg)} / \text{height (m}^2\text{)}$  is **17.5 or less**. Prepubertal patients do not meet the expected weight gain during growth.
2. The patient **reduces her weight** by her own activities, limiting her food intake, excessive exercise, etc.
3. Specific psychopathology is mainly represented by the fear of obesity persisting even when significantly underweight, **a distorted perception of one's own body** and intrusive, controlling thoughts about maintaining underweight, sometimes eating rituals.
4. Extensive endocrine disorder, hypothalamo-pituitary-gonadal axis, amenorrhea in women, (which is often covered by HRT), loss of sexual interest in men.
5. **Delayed puberty**. Onset before puberty, delays or stops further development (growth, breast development, primary amenorrhea, infantile genitalia in boys). Puberty is completed after recovery, but menarche may be delayed.<sup>[1]</sup>

## Eating disorders (EDs)

EDs are psychological diseases that significantly affect the somatic condition of the patients. It belongs to the so-called diseases of civilization, the spread of which is related to the modern idea of what a healthy, successful person should look like, to the promotion of thinness, healthy nutrition and an excess of food. Other triggering factors are: reaction to trauma, divorce or conflict in the family. According to the biological hypothesis, primary hypothalamic dysfunction affecting the hypothalamus-pituitary-gonadal axis is applied. The influence of genetic dispositions is also assumed. Overweight and obesity are also a risk factor.<sup>[1]</sup>

Girls and young women are affected 10 times more often than boys and men. EDs typically begins in puberty and adolescence (between 14 and 15 years and between 17 and 18 years).<sup>[1]</sup>

 For more information see *Eating disorders*.

## Epidemiology

- recently the incidence has been increasing, **0,5-1 % women** between **15 and 30 years**
- the disease is often associated with **obsessive-compulsive and anxiety disorders**
- from internal diseases **comorbidity** is more frequent with: DM, GIT diseases and nervous disorders (Epilepsy, Tourette syndrome, Sclerosis multiplex)

## Causes

The causes of anorexia nervosa **are not entirely clear**. The importance of **genetic predisposition** is assumed. As a rule, a young girl acquires **a morbid** (and very often completely incorrect) **feeling of fatness**, which she wants to get rid of at all costs, and a distorted image of her own body; then intrusive, compulsive thoughts about maintaining a low weight. The cause of the rise of the disease in recent times is the trend of thinness as a sign of beauty. Any negative remark about the girl's figure made by someone from the team can have a similar effect. The affected person begins to lose weight **by drastically restricting her food intake and exercising vigorously**. Manifestations of anorexia nervosa are more likely to be at risk for intelligent girls with a tendency to care, who tend to have good results at school. If the disease manifests itself before puberty, **puberty is delayed or does not start** (breast development, primary amenorrhea, infantile genitalia in boys), puberty will occur after recovery.

**Group of causes:**

- **low resistance** of the individual **to stress**;

ANOREXIA (NERVOSA)  
STARVES BODY → PHYSICAL CHANGES

Ost



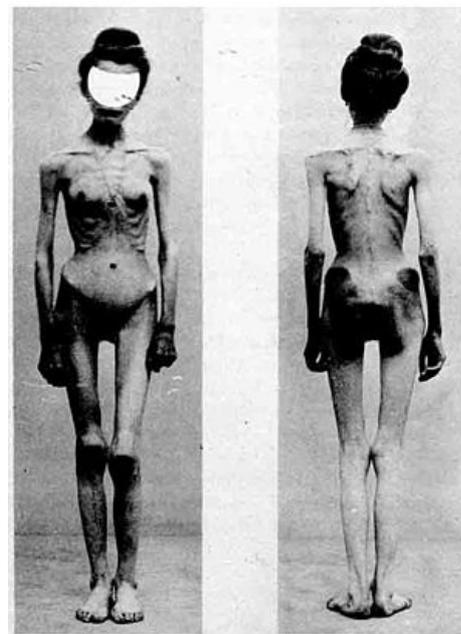
Video in English, definition, pathogenesis, symptoms, complications, treatment.

- **fear of adulthood** - they are afraid that they will not be able to cope with "adult" tasks, they prefer to remain small, thin, to resemble a child;
- **striving to be perfect** in everything and not to disappoint parents or those around you - very intelligent people often suffer from the disease;
- strong dependence on the mother or excessive care by the parents;
- the desire for independence, a sense of independence and gaining self-confidence, deciding what and how much to eat;
- **the pressure of society** , where thinness is favored as a symbol of beauty and success;
- **media pressure** - television, internet, fashion magazines.

## Clinical picture

- cachexia
- amenorrhea
- noticeably dry skin, covered with conspicuous fine hair (lanugo)
- hair loss, increased brittleness of nails
- abdominal pain and constipation (or reduced frequency of stools with severely restricted food intake)<sup>[2]</sup>)
- bradycardia and arrhythmia
- metabolic changes (laxative abuse, vomiting): hypokalemic alkalosis, hypochloremia, hypokalemia, dehydration
- anemia
- psychological changes: trying to lose weight (drastic diets, excessive exercise, abuse of laxatives, inducing vomiting), impaired perception of one's own body, depressed mood, social sufficiency, increased irritability, increase in conflicts with parents, especially over food intake, self-harm, suicidal behavior, obsessive-compulsive disorder, fear of food. <sup>[1]</sup>

The level of cholesterol will paradoxically **increase** - this is due to the metabolic disruption that prevails in the body. However, the greatest danger is the occurrence of **heart rhythm disorders**, which can cause the patient's **sudden death**.



Habitus in Anorexia Nervosa

## Complications and systemic consequences of the disease

- Kidney - hypokalemia, metabolic alkalosis, edema;
- GIT - parotid hypertrophy, delayed gastric emptying, constipation;
- cardiovascular system - bradycardia, hypotension;
- blood - hypercholesterolemia (unclear);
- dermatology - dry skin, perioral dermatitis, lanugo;
- stomatology - tooth decay;
- endocrinology - increased STH, decreased insulin, increased cortisol and CRH;
- psychological - restriction of interests in diets, concentration disorders, black and white thinking, mistrust, shame, affective lability;
- social - isolation, loss of job, loss of family background, economic problems.

## Diagnostics

**Diagnostic criteria - see above.**

### Somatic examination

- complete laboratory examination, including endocrine parameters;
- EEG, MRI CNS, neurological examination;
- ECG, eye examination, endocrinological examination.<sup>[1]</sup>

## Differential diagnosis

- complicated by denial of difficulties, concealment of eating rituals, refusal of treatment
- must be distinguished from cachexia from disease - tuberculosis, tumors, hyperthyroidism, Addison's disease, Diabetes Mellitus, Crohn's disease ([http://Crohn%27s\\_disease](http://Crohn%27s_disease)), malabsorption etc.

## Treatment

- improvement of nutritional status and normalization of the internal environment (emphasis on the earliest possible restoration of normal oral nutrition, nasogastric tube nutrition, parenteral nutrition exceptionally - risk of electrolyte breakdown and other serious complications <sup>[2]</sup>);
- hormone replacement therapy to correct amenorrhea (risk of osteoporosis and irreversible changes in the genital area);
- psychiatric care, psychotherapy, family therapy.<sup>[1]</sup>

Treatment requires the cooperation of doctors from several disciplines. Intensive **psychiatric treatment** combined with long-term hospitalization, strict **control of food intake** and **family support** may be the only option to manage anorexia nervosa. The goal is **mainly nutritional rehabilitation**, i.e. the introduction of a normal eating regimen.

## Prognosis

Anorexia nervosa has a chronic course. Only 10% of patients recover within 2 years. Conspicuous eating habits persist even in cured patients. Mortality is 5-15%, i.e. the highest of all psychiatric diseases.<sup>[2]</sup>

Prognosis: 44% good, 14% unfavorable, death in 5% - the most common cause is cardiac arrest or suicide.

## Links

### Related articles

- Eating disorders • Bulimia
- Eating disorders in pregnancy

### Source

- ŠTEFÁNEK, Jiří. *<https://www.stefajir.cz/>* [online]. ©2010. [cit. 30-11-2010]. <<https://www.stefajir.cz/?q=mentalni-anorexie>>.
- BENEŠ, Jiří. *<http://jirben2.chytrak.cz/>* [online]. ©2010. [cit. 06-12-2010]. <<http://jirben2.chytrak.cz/>>.
- PAPEŽOVÁ, Hana. *<https://connect.cuni.cz/p51755144/>* [online]. [cit. 2012-03-11]. <<https://el.lf1.cuni.cz/p51755144/>>.

### References

1. KOUTEK, Jiří - KOCOURKOVÁ, Jana. Eating disorders - collaboration of Psychiatrist with Pediatrician and Gynecologist. *Pediatry for practice*. 2014, y. 15, vol. 4, p. 213-215, ISSN 1213-0494.
2. MUNTAU, Ania Carolina. *Pediatrics*. 4. edition. Grada, 2009. pp. 548. ISBN 978-80-247-2525-3.