CONDITION

Anorexia nervosa

Learn how anorexia nervosa affects eating, physical health, and emotional well-being, and how medical care, nutrition support, and therapy can aid recovery.

WHAT IT IS
Eating disorder and serious mental health condition

BODY SYSTEM
Mental health

MAIN SYMPTOMS
Food restriction, intense fear of weight gain, disturbed body image, weight loss

WHAT CAUSES IT
Biological, psychological, family and social factors

HOW IT IS DIAGNOSED
Clinical assessment, physical examination, blood tests and ECG

MAIN TREATMENT
Medical monitoring, nutrition support and psychological therapy

CAN IT BE CURED?
Sometimes, recovery is possible with treatment

IS IT AN EMERGENCY?
Sometimes, with fainting or chest pain

LONG-TERM OUTLOOK
Recovery is possible, but bone loss and growth effects may not fully reverse

Overview

Anorexia nervosa is an eating disorder and serious mental health condition. It involves ongoing restriction of food or energy intake, an intense fear of gaining weight or persistent behavior that prevents weight gain, and a disturbed experience of body weight or shape. Some people do not recognize how seriously low weight is affecting their health.

Anorexia nervosa is not a choice, a diet, or a sign of vanity. Thoughts and behaviors related to food can become difficult to control. The condition can affect people of any age, gender, race, ethnicity, body shape, or background.

A person does not need to "look sick" to need care. Significant food restriction and rapid weight loss can cause medical problems even when someone's current weight is not considered low. A person who has the main psychological features of anorexia nervosa without

a low body weight may be diagnosed with another specified eating disorder, often called atypical anorexia nervosa. This can still be medically serious.

Anorexia nervosa matters because the body needs consistent nutrition to support the heart, brain, bones, hormones, digestion, and immune system. Early assessment and treatment can reduce complications. Recovery is possible, although progress may take time and may include setbacks.

Symptoms

Symptoms vary. People may hide their eating habits, exercise, or distress, so family and friends may notice changes before the person asks for help.

Changes in eating or behavior may include:

Physical effects can include fatigue, weakness, dizziness, fainting, feeling cold, constipation, abdominal discomfort, poor sleep, dry skin, hair loss, and difficulty concentrating. Heart rate and blood pressure may become low. Children and teenagers may grow more slowly or have delayed puberty.

Hormone changes may cause menstrual periods to become irregular or stop. People who do not menstruate can also have reduced sex hormones, low sexual interest, or fertility problems. Menstrual changes are not required for diagnosis.

Mood and social changes may include irritability, anxiety, low mood, withdrawal, or loss of interest in usual activities. Depression, obsessive-compulsive symptoms, self-harm, and suicidal thoughts can occur alongside an eating disorder and require direct attention.

- Eating much less, skipping meals, fasting, or following increasingly rigid food rules
- Avoiding foods viewed as high in calories or eating only a narrow range of foods
- Frequent checking of weight, body shape, food labels, or calories
- Strong distress about weight gain or changes in body shape
- Exercising in a driven or compulsive way, including when injured or unwell
- Preparing food for others without eating it
- Avoiding meals with other people or giving repeated reasons for not eating
- Binge eating, self-induced vomiting, or misuse of laxatives or other products in some cases
- Wearing loose or layered clothing to hide weight loss or stay warm

Causes and risk factors

Anorexia nervosa does not have one cause. It appears to develop through a combination of biological, psychological, family, and social factors. Families do not cause eating disorders, but supportive relatives and caregivers can have an important role in recovery.

Genetic factors may affect vulnerability. A personal or family history of eating disorders, anxiety, depression, or obsessive-compulsive disorder may increase risk. Traits such as perfectionism, rigid thinking, strong self-criticism, or difficulty coping with uncertainty can contribute for some people.

Dieting, fasting, food insecurity, illness-related weight loss, or pressure to change weight may trigger restrictive eating. Activities that emphasize weight, appearance, or performance can add risk. Examples include some sports, dance, modeling, and occupations with weight standards. Weight-based teasing, bullying, discrimination, trauma, and stressful life changes may also play a part.

Anorexia nervosa may be overlooked in boys and men, LGBTQ+ people, people with larger bodies, and members of racial or ethnic minority groups. Stereotypes about who develops an eating disorder can delay recognition and care.

Diagnosis

Diagnosis begins with a private, nonjudgmental conversation about eating, weight changes, exercise, body image, and methods used to influence weight. A clinician may also ask about mood, anxiety, substance use, self-harm, and suicidal thoughts. For children and teenagers, information from parents or caregivers can help show changes in eating, growth, and behavior.

The clinician will review weight history rather than relying on a single measurement. In children and teenagers, growth charts are especially important. A body mass index, or BMI, may provide context, but it cannot show the full medical impact of restriction and should not be used alone to decide whether someone deserves treatment.

A physical examination may include heart rate, blood pressure while lying and standing, temperature, hydration, and signs of reduced nutrition. Blood tests can check blood cell counts, blood sugar, salts and minerals called electrolytes, and kidney and liver function. An electrocardiogram, often called an ECG or EKG, may be used to assess heart rhythm. Bone health or hormone testing may be considered based on symptoms and how long the illness has been present.

No single blood test confirms anorexia nervosa. Test results can also appear normal even

when eating-disorder behaviors are serious.

The assessment should consider other reasons for weight loss or reduced eating, such as digestive disease, thyroid disease, diabetes, infection, medication effects, depression, food access problems, or avoidant/restrictive food intake disorder. In that disorder, restriction is not driven by concerns about weight or shape.

Treatment and management

Treatment usually combines medical monitoring, nutritional rehabilitation, and psychological therapy. Care may involve a primary care clinician, mental health professional, and dietitian with eating-disorder experience. The plan should reflect the person's age, medical stability, symptoms, home support, and preferences.

Nutritional rehabilitation means helping the body receive enough energy and nutrients consistently. It may involve a structured meal plan and support during or after meals. Weight restoration is often an important part of treatment when weight is below the person's healthy range. For children and teenagers, goals also account for expected growth and development.

Increasing nutrition can cause temporary fullness, bloating, constipation, or fluid shifts. In people who are severely undernourished, restarting nutrition can rarely cause dangerous changes in phosphate and other electrolytes, known as refeeding syndrome. People at risk need a medically supervised plan and laboratory monitoring. This risk should not be used as a reason to delay seeking care or continuing nutrition without professional guidance.

Psychological treatment addresses eating-disorder thoughts and behaviors while building safer coping skills. For children and teenagers, family-based treatment is often used. It supports parents or caregivers in helping the young person eat regularly and regain health, without blaming the family.

Adults may be offered an eating-disorder-focused therapy, such as cognitive behavioral therapy for eating disorders, the Maudsley Anorexia Nervosa Treatment for Adults, or specialist supportive clinical management. Therapy may also address anxiety, depression, trauma, relationships, and return to school, work, or social activities.

Medication is not usually the main treatment for anorexia nervosa, and there is no medication approved by the U.S. Food and Drug Administration specifically to restore weight or treat its core symptoms. A clinician may consider medication for a coexisting condition, such as depression or anxiety, after weighing the person's nutritional and medical state. Medicines should not replace nutrition support and therapy.

Most people can receive treatment as outpatients. More intensive day treatment, residential

care, or hospital treatment may be needed if outpatient care is not enough or if there is medical or psychiatric instability. Hospital care focuses on immediate safety, nutrition, and stabilization; it is not a punishment.

Complications

Not everyone develops every complication. Risk depends on factors such as the degree and speed of weight loss, duration of restriction, purging behaviors, hydration, and overall health.

Possible complications include:

Some changes improve with adequate nutrition and recovery, but bone loss and effects on growth may not fully reverse. Anorexia nervosa is also linked with increased risk of self-harm and suicide, so mental health symptoms should be taken seriously.

- Slow heart rate, low blood pressure, abnormal heart rhythm, or reduced heart function
- Electrolyte changes, dehydration, low blood sugar, and kidney problems
- Loss of bone strength, which may increase fracture risk
- Reduced sex hormones, menstrual changes, fertility problems, or delayed puberty
- Loss of muscle, weakness, and reduced physical endurance
- Constipation, slowed stomach emptying, bloating, and abdominal pain
- Anemia or other changes in blood cell counts
- Problems with concentration, memory, mood, and sleep
- Dental, throat, or salivary gland problems when vomiting occurs

Follow up

Follow-up is usually regular and may continue after eating and weight have improved. Visits can review food intake, eating-disorder behaviors, mood, activity, vital signs, weight trends, laboratory results, and progress toward personal goals. Children and teenagers also need monitoring of height, puberty, and development.

Routine follow-up should be arranged if food restriction is increasing, weight is falling, periods stop or become irregular, exercise feels difficult to control, or thoughts about food and weight interfere with daily life. Returning symptoms are a reason to contact the care team early, not a sign of failure.

Seek urgent medical advice for repeated vomiting, worsening weakness, significant dizziness, dehydration, confusion, or fainting. Severe abdominal pain also needs prompt assessment.

Call emergency services or go to an emergency department for chest pain, trouble breathing, a seizure, collapse, severe confusion, vomiting blood, or an irregular or very rapid heartbeat with feeling unwell. Immediate help is also needed for suicidal thoughts with intent or a plan, a suicide attempt, or an inability to stay safe. In the United States, call or text 988 for crisis support; elsewhere, use the local crisis or emergency service.

Sources

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