FEEDING AND EATING DISORDERS

Anorexia Nervosa • Bulimia Nervosa • Binge Eating Disorder

OVERVIEW

The three main categories of feeding and eating disorders are anorexia nervosa, bulimia nervosa, and binge eating disorder (see Table 1). Because each category has different treatments, each will be discussed in its own section of this chapter.

Table 1
Feeding Disorders Affecting Children & Adolescents

Disorder	Description
Anorexia nervosa (AN)	Distorted body image and pathological fear of becoming fat that leads to excessive dieting and extreme weight loss. Can include purging or excessive exercise.
Bulimia nervosa (BN)	Frequent episodes of binge eating followed by purging behaviors such as vomiting or laxative use to avoid weight gain. Weight unduly influences self-concept.
Binge eating disorder (BED)	Excessive, out-of-control eating without purging that causes marked distress. Weight does not need to unduly influence self-concept.

Eating disorders are a significant problem in the United States among children and adolescents of all ethnic groups. The American Psychiatric Association (APA) has reported that eating disorders are now the third most common form of chronic illness in the adolescent female population, with prevalence rates as high as ten percent. Males also struggle with eating disorders, as they account for approximately 10 percent of the bulimia nervosa population and 35 percent of the anorexia nervosa population.

While feeding and eating disorders are considered to be psychiatric in nature, accompanying nutrition and medical problems may make them life-threatening.

Psychological disorders often co-occur with AN, BN, or BED. For instance, as many as 50 percent of individuals with a feeding and eating disorder also have depression. These disorders can precede or accompany the onset of feeding or eating disorder, and they sometimes remit after treatment. Co-occurring disorders include:

- Depressive disorders
- Anxiety disorders
- Bipolar disorder
- Substance abuse disorders
- Obsessive-compulsive disorder

The risk of suicide in individuals diagnosed with an eating disorder is substantial. Individuals with BN report a greater number of suicidal attempts (25 to 35 percent), compared to those with AN (10 to 20 percent). Researchers speculate that the link between purging and suicidal attempts may point to a general lack of impulse control, whereas the higher prevalence of suicidal thoughts among individuals with AN suggests chronic self-harming behavior. For more information, see the "Youth Suicide" section of the *Collection*.

CAUSES AND RISK FACTORS

Attempts to identify a single cause of eating disorders have been abandoned and replaced by a more multifaceted etiological theory. Studies suggest disordered eating typically develops from a complex interaction of psychological risk factors, sociocultural influences, and biological or genetic predispositions. Common risk factors are provided in Table 2.

Table 2
Risk Factors for Feeding and Eating Disorders

Category	Common Risk Factors
Psychological factors and personality traits	• Negative affect or outlook • Low self-esteem • Intense dissatisfaction with appearance • Perfectionism • Impulsivity • Rigid cognitive styles and/or need for control • Obsessive-compulsiveness • Avoidance traits • Lack of self-direction
Dysfunctional families and relationships	• Conflict avoidance • Significant parental enmeshment • Rigid/overprotective parenting
History of abuse or trauma	• Physical abuse • Sexual abuse • Traumatic events
Involved in activity that has an emphasis on body shape or weight	• Sports that emphasize aesthetics or thinness (e.g., gymnastics, running) • Sports that include weight classes (e.g., wrestling) • Dance or other performance arts • Appearance-centric activities (e.g., modelling, beauty pageants)
Genetic factors	Unclear; however first-degree female relatives and identical twin siblings have higher rates of eating disorder diagnoses

TREATMENT CONSIDERATIONS

The earlier an eating disorder is identified and treated, the better the chances for recovery. However, families should be aware that it might take as long as 10 years from the commencement of treatment to behavioral cure, including normal eating and normal weight. A comprehensive treatment plan should include medical care and monitoring, psychosocial interventions, nutritional counseling and, when appropriate, medication management.

Treatment locations range from intensive patient settings, in which general medical consultation is readily available, to partial hospital and residential programs with varying levels of outpatient care. The individual's weight, cardiac, and metabolic status are the most important physical parameters for determining treatment setting. Individuals who weigh under 85 percent of their estimated healthy weights are likely to require a highly structured program and possibly 24-hour hospitalization. Hospitalization should occur before the onset of medical instability, as manifested by severely abnormal vital signs.

ANOREXIA NERVOSA (AN)

The primary characteristic/criterion of AN is intense fear of gaining weight or becoming fat, even when the individual is underweight. Individuals with AN resist maintaining their body weight at or above a minimally normal weight for their age and height. Youth with AN will often exhibit significantly low weight. Some may also exhibit purging or binge/purging behaviors.

Individuals with AN sometimes have specific personality traits, including perfectionist traits and low self-esteem (see Table 2), and they can be high achievers. Many have an intense need for a feeling of mastery over their lives. Primary features and signs and symptoms of AN appear in Table 3.

KEY POINTS

- **Characterized by distorted body image, fear of becoming fat, and excessive dieting. Can include purging.**
- **If untreated, can cause extremely low body weight, malnutrition, dehydration, and death.**
- **Associated with an increased risk of suicide.**
- **Family-based psychotherapy is the gold standard of treatment.**

TREATMENTS FOR ANOREXIA NERVOSA

A summary of treatments for AN is presented in Table 4. The treatment of AN generally occurs in three phases:

1. Restoring the weight lost by severe dieting and purging
2. Treating psychological disturbances, such as distorted self-perception, low self-esteem, and interpersonal issues
3. Achieving long-term, full recovery

Table 3
Primary Features and Common Signs and Symptoms of Anorexia Nervosa

Primary Features	Common Signs and Symptoms
• Excessive food restriction • Distorted body image • Undue influence of body weight and shape in self-evaluation/fear of gaining weight • Denial of the seriousness of the current low body weight May lead to: • Significant weight loss • Dangerous side-effects including malnutrition and dehydration, which can lead to death	• Starving oneself by fasting or calorie restriction • Purging or binge/purge behaviors • Excessive exercise • Changes in the mouth, including enlarged salivary glands, changed tooth color, tissue loss or lesions, heightened sensitivity to temperature, and tooth decay • Dry and/or yellowing skin • Dehydration • Abdominal pain and/or constipation • Lethargy, dizziness, and/or fatigue • Development of fine, downy body hair • Infrequent or absent menstrual periods • Intolerance to cold • Wearing clothing that hides weight loss • Emaciation

Family-Based Psychotherapy

Family-based psychotherapy is considered the gold standard of treatment for AN in adolescents. The goal of family therapy is to involve family members in symptom reduction and to deal with family relational problems that may contribute to AN. Family-based therapy occurs over the following three stages:

1. Parents, along with the therapist, take responsibility to ensure the adolescent is eating sufficiently and controlling other pathologic weight control methods. Substantial weight recovery occurs before moving to the second phase.
2. Parents and the therapist help the adolescent gradually take over responsibility for his or her eating. Weight is restored in the second phase, and then the family moves onto the third phase.
3. The family addresses more general issues of the adolescent's development and how they were disrupted by the eating disorder.

Family psychotherapy may not be appropriate for families in which one or both parents exhibit psychopathy or hostility to the affected child, and it may not be appropriate for the most medically compromised adolescents.

In-Patient Behavioral Programs

These programs commonly provide a combination of nonpunitive reinforcers, such as privileges linked to weight goals and desired behaviors. They have been shown to produce good short-term therapeutic effects. Adolescents with AN may have the best outcomes after structured in-patient or partial hospitalization treatment.

Nutritional Rehabilitation

Evidence suggests that nutritional monitoring is effective in helping individuals return to a healthy weight, so long as it is conducted in a setting that meets the individual's needs. Increasing calories consumed may be difficult, but smaller, frequent meals, calorie dense foods, and substituting fruit juice for water may help negate psychological barriers, such as aversion to a feeling of fullness. For severely underweight individuals, individual treatment has been found to be most effective. Clinicians have reported that, as weight is restored, other eating disorder and psychiatric comorbid symptoms diminish; however, they often do not disappear completely. Psychoeducational nutrition groups have also been associated with positive outcomes. Although helpful, it is important that nutrition counseling serve as only one component of a multidisciplinary treatment approach.

Table 4
Summary of Treatments for Anorexia Nervosa

What Works	
Family psychotherapy	Family members are included in the process to assist in reduction of symptoms and modify maladaptive interpersonal patterns.
In-patient behavioral programs	Individuals are rewarded for engaging in healthy eating and weight-related behaviors.
Nutritional rehabilitation	Entails developing meal plans and monitoring intake of adequate nutrition to promote healthy weight gain.
What Seems to Work	
Cognitive behavioral therapy (CBT)	Needs further study to be well established; it is used to change underlying eating disorder cognitions and behaviors.
Medication	Used primarily after weight restoration to minimize symptoms associated with psychiatric comorbidities.
Not Adequately Tested	
Individual psychotherapy	Controlled trials have not supported this treatment; however, it may be beneficial during the refeeding process and to minimize comorbid symptoms.
What Does Not Work	
Group psychotherapy	May stimulate the transmission of unhealthy techniques among group members, particularly during acute phase of disorder.
12-step programs	Not yet tested for their efficacy; discouraged as a sole treatment.
Tricyclic antidepressants	Tricyclic antidepressants are contraindicated and should be avoided in underweight individuals and in individuals who are at risk for suicide.
Somatic treatments	To date, treatments such as vitamin and hormone treatments and electroconvulsive therapy show no therapeutic value.

BULIMIA NERVOSA (BN)

BN consists of recurrent episodes of binge eating, characterized by consumption of excessive amounts of food within a discrete period of time, and lack of control in overeating during the episode. In order to prevent weight gain, the binges are followed by recurrent inappropriate responses, such as self-induced vomiting or misuse of laxatives and other medications (often referred to as purging), fasting, or excessive exercise. Purging is dangerous behavior and may seriously damage health, causing dehydration and hormonal imbalance, depleting minerals, and damaging organs.

KEY POINTS

- **Characterized by out-of-control binge eating followed by purging techniques such as vomiting or using laxatives.**
- **Can be hard to spot; many people with BN are within normal weight ranges.**
- **Excessive purging can seriously damage health.**
- **Dentists often notice signs first because excessive vomiting can cause changes in the mouth.**
- **Associated with an increased risk of suicide.**
- **Cognitive behavioral therapy is considered the gold standard of treatment.**

Binge eating and compensatory behaviors both occur, on average, at least once a week for three months or more. Finally, like other eating disorders, the individual's self-evaluation is unduly influenced by body shape and weight. Recognizing BN can be challenging because many individuals with BN are within normal weight range.

Youth affected with BN are often embarrassed by their compulsion to eat and may also attempt to hide their symptoms. Primary features and signs and symptoms of BN appear in Table 5.

TREATMENTS FOR BULIMIA NERVOSA

The primary goal of treatment with individuals with BN is to reduce or eliminate binge eating and purging behavior. Nutritional rehabilitation, psychosocial intervention, and medication management strategies are therefore often used. Specifically, treatment includes establishing regular, non-binge meals, improving attitudes related to the disorder, encouraging healthy but not excessive exercise, and resolving any co-occurring mental health disorders such as anxiety or mood disorders. A summary of treatments for BN is presented in Table 6.

Cognitive Behavioral Therapy (CBT)

This form of psychotherapy, when specifically directed at BN symptoms and underlying conditions, is the intervention for which there is the most evidence of efficacy. It has been found to lead to significant reductions in binge eating, vomiting, and laxative abuse. Some consider CBT the "gold standard" of therapy. It involves a combination of psychoeducation, self-monitoring, adjusting reactions to cues, confronting and restructuring automatic thoughts, problem solving, exposure while preventing response, and preventing relapse.

Table 5
Primary Features and Common Signs and Symptoms of Bulimia Nervosa

Primary Features	Common Signs and Symptoms
• Undue influence of body weight and shape in self-evaluation/fear of gaining weight • Excessive and uncontrolled eating followed by purging methods such as vomiting, laxatives, enemas, diuretics, exercising May lead to: • Dehydration • Hormonal imbalance • Depleting important minerals • Damaging vital organs	• Alternating binges and severe diets • Severe weight fluctuations • Purging calories by self-induced vomiting and/or using laxatives • May run water to hide vomiting • Scars on the back of the hand caused by induced vomiting • Changes in the mouth, including enlarged salivary glands, changed tooth color, tissue loss or lesions, heightened sensitivity to temperature, and tooth decay • Excessive exercise • Dry hair and skin; hair loss; skin pigmentation changes

Table 6
Summary of Treatments for Bulimia Nervosa

What Works	
Cognitive behavioral therapy (CBT)	The most effective independent treatment option; it is used to change underlying eating disorder cognitions and behaviors.
Combined treatments	A combination of CBT and medication seems to maximize outcomes.
What Seems to Work	
Medication	Antidepressants, namely SSRIs, have effectively reduced binge/purging behaviors, as well as comorbid psychiatric symptoms.
Not Adequately Tested	
Individual psychotherapy	Compared to CBT, few individual therapeutic approaches have been effective in reducing symptoms.
Family therapy	May be more beneficial than individual psychotherapy, but outcomes should be considered preliminary at this time.
What Does Not Work	
Bupropion	Bupropion has been associated with seizures in purging individuals with BN and is contraindicated.
Monoamine oxidase inhibitors (MAOIs)	MAOIs are potentially dangerous in individuals with chaotic binging and purging and their use is contraindicated.
12-step programs	Discouraged as a sole treatment because they do not address nutritional or behavioral concerns.

Combined Treatments

There is generally a better response to CBT than pharmacotherapy; however, the combination of these two methods has been found to be superior to either treatment independently.

BINGE-EATING DISORDER (BED)

In 2013, the *Diagnostic and Statistical Manual for Mental Health Disorders* (DSM-5) included the diagnosis of BED as an official disorder. This addition is highly significant because BED is likely to be the most prevalent eating disorder. BED shares the binge-eating criterion of bulimia nervosa (BN) of consuming an objectively large quantity of food in a relatively short time while experiencing a loss of control. The disorder differs from BN, however, in that individuals with BED do not engage in compensatory behaviors, such as vomiting or laxative use, after binge eating. In addition, for an individual to be diagnosed with BN, body weight and shape must unduly influence his or her self-concept. This is not necessary for a diagnosis of BED.

KEY POINTS

- **Characterized by out-of-control binge eating with marked distress, but without purging.**
- **Can cause weight gain and obesity-related health risks.**
- **Body weight and shape do NOT need to unduly influence self-concept.**
- **Newly-recognized disorder; no evidence-based treatments for youth yet established.**

The second criterion for BED describes behaviors, emotions, and thoughts associated with binge eating. BED includes recurrent episodes of binge eating followed by marked distress. Binge eating is accompanied by an uncontrollable feeling that one cannot stop eating.

Primary features and signs and symptoms of BED appear in Table 7.

TREATMENTS FOR BINGE EATING DISORDER

The treatment goals and strategies for BED are similar to those for BN. The primary difference in the two disorders is that individuals with BED may present with difficulties associated with being overweight rather than being malnourished. Consequently, the treatment strategies tend to diverge only in the nature of medical interventions. However, BED has been relatively unexamined in younger patients and no treatments yet meet evidence-based criteria.

A summary of treatments for BED is presented in Table 8.

Table 7
Primary Features and Common Signs and Symptoms of Binge Eating Disorder

Primary Features	Common Signs and Symptoms
• Frequent episodes of excessive and uncontrolled eating that cause marked distress • Feeling that one cannot control or stop a binge • No purging like in bulimia nervosa • Self-concept need NOT be unduly influenced by body weight and shape • May lead to weight gain, health issues associated with obesity, and/or future purging behaviors	• Eating more rapidly than normal • Eating until uncomfortably full • Eating large amounts of food when not hungry • Eating alone because of embarrassment from the amount of food being consumed • Feeling disgusted with oneself, depressed, or very guilty after a binge • Weight gain

Table 8
Summary of Treatments for Binge Eating Disorder

What Works	
There are no evidence-based practices at this time.	
What Seems to Work	
Cognitive behavioral therapy (CBT)	The most effective independent treatment option; it is used to change underlying eating disorder cognitions and behaviors.
Interpersonal psychotherapy (IPT)	Attempts to reduce the use of binge eating as a coping mechanism by supporting the development of healthy interpersonal skills.
Medication	Antidepressants, namely SSRIs, have effectively reduced binge/purging behaviors, as well as comorbid psychiatric symptoms.
Not Adequately Tested	
Dialectical behavior therapy (DBT) Mindfulness and yoga-based interventions	These treatments are suggested as future areas of research.
What Does Not Work	
Nutritional rehabilitation and counseling	Although initial weight loss is associated with these treatments, weight is commonly regained.
12-step programs	Discouraged as a sole treatment because they do not address nutritional or behavioral concerns.

RESOURCES AND ORGANIZATIONS

Academy for Eating Disorders (AED)
https://www.aedweb.org/home

Association for Behavioral and Cognitive Therapies (ABCT)
http://www.abct.org/Home/

Eating Disorders Coalition for Research, Policy & Action (EDC)
http://www.eatingdisorderscoalition.org/

EDReferral.com (Eating Disorder Referral and Information Center)
https://www.edreferral.com/

Johns Hopkins Eating Disorders Program
https://www.hopkinsmedicine.org/psychiatry/specialty_areas/eating_disorders/index.html

Maudsley Parents
http://www.maudsleyparents.org/

National Association of Anorexia Nervosa and Associated Eating Disorders
http://www.anad.org/

National Eating Disorders Association (NEDA)
Information & Referral Helpline: 800-931-2237
https://www.nationaleatingdisorders.org/

National Institute of Mental Health (NIMH)
https://www.nimh.nih.gov

Society for Adolescent Health and Medicine (SAHM)
https://www.adolescenthealth.org/Home.aspx

Society of Clinical Child and Adolescent Psychology
https://sccap53.org/

Substance Abuse and Mental Health Services Administration (SAMHSA)
https://www.samhsa.gov/

VIRGINIA RESOURCES AND ORGANIZATIONS

James Madison University
Help Overcome Problems with Eating and Exercise (HOPE)
https://www.jmu.edu/healthcenter/PreventionandEducation/hope-multiregion.shtml

Virginia Commonwealth University Health System
Department of Psychiatry
https://psych.vcu.edu/

Virginia Treatment Center for Children (VTCC)
https://www.chrichmond.org/services/virginia-treatment-center-for-children.htm

Virginia Tech
Cook Counseling Center
http://ucc.vt.edu/self_help_support_stategies/help_eating_disorders.html

The Collection of Evidence-based Practices for Children and Adolescents with Mental Health Treatment Needs, 8th Edition

Virginia Commission on Youth, 2021

The information contained herein is strictly for informational and educational purposes only and is not designed to replace the advice and counsel of a physician, mental health provider, or other medical professional. If you require such advice or counsel, you should seek the services of a licensed mental health provider, physician, or other medical professional. The Virginia Commission on Youth is not rendering professional advice and makes no representations regarding the suitability of the information contained herein for any purpose.