FEEDING AND EATING DISORDERS

Bulimia Nervosa

BN

DSM-5-TR 307.51 | ICD-10-CM F50.2

Recurrent binge eating with compensatory purging or fasting at normal or higher weight, driven by shape-based self-worth.

LIFETIME PREVALENCE	TYPICAL ONSET	SEX RATIO	COURSE
~1.0-1.5% (US adults)	Late adolescence, 18-20 y	~5:1 female:male	~50% remit by 10 years

CLINICAL PICTURE

- Patients are normal weight or slightly above and hide the illness for years; secrecy, shame and disappearing to the bathroom after meals are typical.
- Binges of 1000-2000 kcal within about 2 hours carry a subjective loss of control and usually follow a period of daytime dietary restriction.
- Compensation includes self-induced vomiting in roughly 80%, plus laxatives, diuretics, fasting, driven exercise or insulin omission in diabetes.
- Exam findings include parotid hypertrophy, Russell sign on the dorsum of the hand, lingual enamel erosion, palatal petechiae and reflux esophagitis.
- Mood lability, impulsivity, self-injury and substance use co-occur far more often than in anorexia nervosa, forming a multi-impulsive presentation.
- Weight can swing several kilograms within a week, and menstrual irregularity occurs in most patients without frank amenorrhea.

DIAGNOSTIC CRITERIA AT A GLANCE

- Requires recurrent binges with loss of control plus inappropriate compensatory behavior, each averaging at least once weekly for a minimum of 3 months.
- A binge is defined by an objectively large amount of food eaten within about 2 hours relative to context, not by the patient's subjective sense alone.
- Self-evaluation must be unduly influenced by body shape and weight, the core cognitive feature that bulimia nervosa shares with anorexia nervosa.
- The diagnosis is not made if the behavior occurs only during episodes of anorexia nervosa, since significantly low weight directs the AN diagnosis instead.
- Severity is graded by weekly compensatory episodes: mild 1-3, moderate 4-7, severe 8-13, and extreme at 14 or more per week.

NEUROBIOLOGY & PHYSIOLOGY

- Heritability estimates run 50-60%, with serotonergic vulnerability shown by reduced **5-HT** transporter binding and sensitivity to tryptophan depletion.
- Blunted ventral striatal and anterior cingulate reward response combined with heightened orbitofrontal food cue reactivity underlies loss of control.
- Dieting lowers brain tryptophan and serotonin availability in women, which helps explain why binges are precipitated by restriction rather than hunger.
- Vomiting produces hypokalemic, hypochloremic metabolic alkalosis, whereas laxative abuse instead generates a hyperchloremic metabolic acidosis.
- Cardiac risk arises from hypokalemia and QTc prolongation, with rarer ipecac cardiomyopathy and Boerhaave syndrome esophageal rupture.
- Post-purge reflex hypoglycemia and rebound edema when purging stops drive early relapse unless anticipated and explained to the patient.

PSYCHOLOGICAL MECHANISMS

- Restraint theory: rigid dietary rules create abstinence violation effects, so a single lapse escalates into a full binge and then compensatory purging.
- Purging is negatively reinforced by rapid anxiety relief, making it the most heavily operant-conditioned and treatment-resistant part of the cycle.
- The affect regulation model holds that bingeing narrows attention away from aversive self-awareness, and emotional escape predicts episode timing.
- High impulsivity, novelty seeking and rates of childhood maltreatment exceed those in anorexia and predict comorbid substance use and self-harm.
- Shape-based self-worth sustained by body checking and body avoidance is the core maintaining mechanism targeted in **CBT-E** relapse prevention.

DIFFERENTIAL & COMORBIDITY

- Differentiate binge-eating disorder without compensation, anorexia nervosa binge-purge subtype at low weight, and rumination or GI causes of vomiting.
- Consider Kleine-Levin syndrome, Prader-Willi syndrome and hypothalamic lesions when hyperphagia is atypical, and insulin omission in type 1 diabetes.
- Lifetime comorbidity is high: mood disorders near 70%, anxiety disorders about 65%, substance use near 35%, and borderline personality disorder near 30%.
- Suicide attempts occur in 25-35% and non-suicidal self-injury is common, with a standardized mortality ratio roughly twice the general population.
- Baseline workup includes potassium, magnesium, bicarbonate, amylase and ECG, plus dental referral and pregnancy screening as clinically indicated.

Treatment EVIDENCE-BASED MANAGEMENT

PHARMACOLOGIC

- **Fluoxetine 60 mg/day** is the only FDA-approved agent and reduces binge and purge frequency by roughly 50-70% at doses above the antidepressant range.
- Other SSRIs such as **sertraline 100-200 mg/day** are second-line; combine with psychotherapy since medication alone rarely produces sustained abstinence.
- **Bupropion is contraindicated** in patients who purge because seizure risk rises sharply in the setting of electrolyte disturbance and low weight.
- **Topiramate 100-250 mg/day** lowers binge frequency but brings cognitive slowing, paresthesia, teratogenicity and weight loss that may be unwelcome.
- Replete potassium orally, avoid unnecessary QTc-prolonging drugs, and taper laxatives gradually with fiber and hydration to prevent rebound constipation.

PSYCHOTHERAPY

- **CBT-E** is first-line at 20 sessions over 20 weeks, producing remission in roughly 30-50% and the largest effect size of any bulimia treatment.
- Guided self-help based on CBT is the NICE-recommended entry point for adults and an efficient first step within a stepped-care pathway.
- **IPT** matches CBT outcomes at long-term follow-up but works more slowly, making it a reasonable second-line choice after CBT non-response.
- **DBT** targets binge-purge behavior when emotion dysregulation, self-harm or borderline personality traits dominate the clinical picture.
- Regular eating every 3-4 hours, real-time self-monitoring records and stimulus control are the earliest behavioral changes and predict outcome.

ADJUNCT & SUPPORTIVE

- Most patients are managed as outpatients; admit for potassium below 3.0, arrhythmia, hematemesis, acute suicidality or failed outpatient treatment.
- Nutritional counseling normalizes meal structure and corrects the belief that vomiting removes most calories, which it demonstrably does not.
- Dental evaluation, rinsing with water or bicarbonate rather than brushing after purging, and fluoride treatment protect remaining enamel.
- Measure change with the **EDE-Q**, weekly binge and purge logs, and the SCOFF questionnaire for screening in primary care settings.
- Family involvement and family-based treatment for bulimia benefit adolescents, and group formats reduce shame-driven secrecy in adults.

CLINICAL PEARLS

- Fluoxetine works for bulimia only at 60 mg/day; lower doses are effectively subtherapeutic.
- Normal weight does not mean medically stable: check potassium and an ECG at intake.
- Never prescribe bupropion to a purging patient, as the seizure risk is unacceptable.

References

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). https://doi.org/10.1176/appi.books.9780890425787

Fairburn, C. G., Cooper, Z., Doll, H. A., O'Connor, M. E., Bohn, K., Hawker, D. M., Wales, J. A., & Palmer, R. L. (2009). Transdiagnostic cognitive-behavioral therapy for patients with eating disorders: A two-site trial with 60-week follow-up. *American Journal of Psychiatry, 166*(3), 311-319. https://doi.org/10.1176/appi.ajp.2008.08040608

Hudson, J. I., Hiripi, E., Pope, H. G., Jr., & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. *Biological Psychiatry, 61*(3), 348-358. https://doi.org/10.1016/j.biopsych.2006.03.040

National Institute for Health and Care Excellence. (2017). *Eating disorders: Recognition and treatment* (NICE Guideline NG69). https://www.nice.org.uk/guidance/ng69

National Institute of Mental Health. (n.d.). *Eating disorders*. U.S. Department of Health and Human Services. https://www.nimh.nih.gov/health/topics/eating-disorders

Sadock, B. J., Sadock, V. A., & Ruiz, P. (2021). *Kaplan & Sadock's synopsis of psychiatry* (12th ed.). Wolters Kluwer.

Stahl, S. M. (2021). *Stahl's essential psychopharmacology* (5th ed.). Cambridge University Press.

NOTE

References are formatted in APA 7th edition style with hanging indents. Diagnostic terminology, criteria structure, and coding follow the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed., text rev.; APA, 2022); criteria are paraphrased for instructional use and are not reproduced verbatim. Verify all citations against the original sources before use in academic work, and confirm medication dosing against current prescribing information.