

Eating Disorders

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Feeding & Eating Disorders – Introduction

- Altered consumption/absorption of food
 - Impairs physical health or psychosocial functioning
- AN, BN, BED → mutually exclusive at any one time
 - Differ in clinical course, outcomes, treatment needs
- Pica → can be dx with any other feeding/eating disorder
- Cravings, compulsive behavior → resemble SUD
- Obesity → not a mental disorder
 - But robust assoc with number of mental disorders
 - Can be side effect of some psychotropic medications

Pica

Pica – Diagnostic Criteria

- A. Eating **non-nutritive, non-food substances** for **>1 month**
- B. Inappropriate to developmental level
- C. Not culturally supported or socially normative practice
- D. If occurs in context of AMD, sufficiently severe to warrant additional clinical attention

Pica – Diagnostic Specifier

- *Specify if:*
 - In remission

Pica – Diagnostic Features

- Typical substances vary with age, availability
 - Paper, soap, cloth, hair, string, wool, soil, chalk, talcum powder
 - Paint, gum, metal, pebbles, charcoal, coal, ash, clay, starch, ice
- Typically **NO** aversion to food in general
- Must be developmentally inappropriate
 - Suggest **min age 2** → exclude normal mouthing of objects
- May be assoc feature of AMD
 - Intellectual disability, autism spectrum disorder, schizophrenia
 - Must be sufficiently severe to warrant additional clinical attention

Pica – Associated Features

- Often no specific biological abnormalities
 - May have deficiencies in vitamins/minerals
- Usually comes to clinical attention due to medical complications
 - **Bowel obstruction from bezoar**
 - Intestinal perforation
 - Infections (toxoplasmosis, toxocariasis from ingesting feces/dirt)
 - Poisoning (lead-based paint)

Pica – Prevalence

- Prevalence = UNCLEAR
 - If intellectual disability → prevalence of pica increases with severity

Pica – Development & Course

- Onset

- **Childhood onset** MOST COMMON → can be normal developing
- Can occur in adolescence, adulthood → usually in context of AMD
- **Pregnancy** → may have specific cravings
 - Only dx pica if behavior poses potential medical risks

- Course

- Can be **protracted**
- Can result in **medical emergency** (obstruction, acute wt loss, poisoning)
- Can be **fatal** depending on ingested substances

Pica – Risk & Prognostic Factors

- Environmental
 - Neglect, lack of supervision, developmental delay

Pica – Culture-Related Issues

- May be culturally supported or social normative practice
 - Spiritual, medicinal, other social value
 - Do NOT dx pica

Pica – Gender-Related Issues

- Occurs in both males + females
 - Can occur during pregnancy → little known about course postpartum

Pica – Diagnostic Markers

- Imaging of abdomen → may show obstructions
- Blood tests → poisoning, infections

Pica – Functional Consequences

- Can significantly impair PHYSICAL functioning
- Rarely sole cause of impaired SOCIAL functioning
 - Often occurs with other impairing disorders

Pica – Differential Diagnosis

- Other mental disorders
 - Autism spectrum disorder, schizophrenia, Kleine-Levin syndrome
- Anorexia nervosa
 - May be attempt to control appetite/weight → dx AN only
- Factitious disorder
 - Intentional ingestion as part of **falsification of physical symptoms**
- Non-suicidal self-injury in personality disorders
 - Swallowing potentially harmful items (pins, needles, knives)
 - Maladaptive behavior patterns

Pica – Comorbidity

- Most common comorbidities
 - **Autism spectrum disorder, intellectual disability**
 - To lesser degree → schizophrenia, OCD
- Associated with:
 - **Trichotillomania, excoriation disorder**
 - If comorbid → hair/skin typically ingested
 - Avoidant/restrictive food intake disorder → strong sensory component
- Consider possibility of:
 - GI complications, poisoning, infection, nutritional deficiency

Rumination Disorder

Rumination Disorder – Diagnostic Criteria

- A. Repeated **regurgitation of food**, for **>1 month**
 - Regurgitated food may be re-chewed, re-swallowed, spit out
- B. Not due to associated GI or AMC (GERD, pyloric stenosis)
- C. Not exclusively during AN, BN, BED, ARFID
- D. If occurs in context of AMD, sufficiently severe to warrant additional clinical attention

Rumination Disorder – Diagnostic Specifier

- *Specify if:*
 - In remission

Rumination Disorder – Diagnostic Features

- Repeated regurgitation
 - Previously swallowed food brought up into mouth
 - May be partially digested → without nausea, retching, disgust
 - May be re-chewed, re-swallowed or spit out
 - Should be **frequent** (several times per week, typically daily)
 - May be described as **habitual or outside of control**
- May be diagnosed across the lifespan
 - Esp if intellectual disability

Rumination Disorder – Associated Features

- Infants

- Characteristic position of **straining + arching back**
 - Head held back, making **sucking movements with tongue**
 - Appear to gain satisfaction from activity
- May be irritable/hungry between episodes of regurgitation
- **Weight loss + failure to gain weight** → common features in infants
 - Malnutrition despite apparent hunger, large intake

- Older children + adults

- Malnutrition, esp if also restriction of intake
- May attempt to disguise by placing hand over mouth/coughing
- May avoid eating with others or eating prior to social situations

Rumination Disorder – Prevalence

- Prevalence data → inconclusive
 - Higher if **intellectual disability**

Rumination Disorder – Development & Course

- Onset → infancy to adulthood
 - Infants → usually between 3-12 months
 - Frequently remits spontaneously
 - But can be protracted, with medical emergencies, potentially fatal
- Course
 - Can have **episodic or continuous course**, until treated
 - If neurodevelopmental disorder → may be **self-soothing/stimulating**
 - Similar to repetitive motor behaviors (head banging)

Rumination Disorder – Risk & Prognostic Factors

- Environmental (predisposing in infants, young children)
 - Lack of stimulation, neglect
 - Problems in parent-child relationship
 - Stressful life situations

Rumination Disorder – Functional Consequences

- Malnutrition (secondary to repeated regurgitation)
 - May be assoc with **growth delay**
 - May negatively affect **development, learning potential**
- Social undesirability of regurgitation
 - May deliberately restrict food intake
 - May present with weight loss or low weight
 - More likely to affect social functioning in older children to adults (vs infants)

Rumination Disorder – Differential Diagnosis

- Gastrointestinal conditions
 - GERD, vomiting, gastroparesis, pyloric stenosis, hiatal hernia
 - Sandifer syndrome in infants
- Anorexia nervosa, bulimia nervosa
 - If due to concerns about weight gain

Rumination Disorder – Comorbidities

- Can occur with concurrent AMC/AMD
 - Dx is sufficiently severe to warrant additional clinical attention

Avoidant/Restrictive Food Intake Disorder

ARFID – Diagnostic Criteria

- A. Eating or feeding disturbance**, manifested by **persistent failure to meet** appropriate nutritional/energy needs (1+/4):
 1. Significant **weight loss** (or failure to achieve expected weight gain)
 2. Significant **nutritional deficiency**
 3. Dependence on **enteral feeding or oral nutritional supplements**
 4. Marked interference with **psychosocial functioning**
- B.** Not due to lack of available food or culturally-sanctioned
- C. Not exclusively during AN/BN**, not due to disturbance in experience of one's body weight/shape
- D.** Not due to AMC or AMD, sufficiently severe to warrant additional clinical attention

ARFID – Diagnostic Features

- Avoidance or restriction of food intake
 - Significant failure to meet nutritional/energy requirements
 - **Weight loss** → in C&A, not meeting growth expectations
 - **Nutritional deficiency** → may be similar to AN (bradycardia, hypothermia)
 - Dependence on **supplementary feeding** (enteral feed, PO supplement)
 - Psychosocial dysfunction → inability to eat with others, sustain r/s
- Not due to developmentally normal behaviors
 - Picky eating in toddlers, reduced intake in older adults

ARFID – Diagnostic Features

- May be based on sensory characteristics of food
 - Color, smell, texture, temperature, taste
 - “**Selective/perseverant eating**”, “**chronic food refusal**”
 - “**Food neophobia**”
 - May refuse to eat particular brands, tolerate smell of food eaten by others
 - May resemble heightened sensory sensitivity in autism
- May be a conditioned negative response
 - Following or in anticipation of an **aversive experience**
 - Choking, vomiting, traumatic investigation (usually GI)
 - “**Functional dysphagia**”, “**globus hystericus**”

ARFID – Associated Features

- Lack of interest in eating food
 - Leads to weight loss, faltering growth
- Very young infants
 - May present too sleepy, distress or agitated to feed
- Infants
 - May not engage with caregiver during feeding or communicate hunger
 - In favor of other activities
- Older children, adolescents
 - May be assoc with more **generalized emotional difficulties**
 - Not meeting diagnostic criteria for anxiety, depressive, bipolar disorders
 - “Food avoidance emotional disorder”

ARFID – Development & Course (1)

- Onset of food avoidance/restriction
 - Associated with insufficient intake or lack of interest in eating
 - Most commonly develops in **infancy or early childhood**
 - If based on sensory characteristics of food
 - First **10 years** → may persist into adulthood
- Course → stable, long-standing
 - May persist into adulthood → may be assoc with normal functioning
 - Insufficient evidence to link to subsequent onset of eating disorder
- Manifests more commonly in children (vs adults)
 - May be long delay between onset to clinical presentation
 - Varied presentations (physical, social, emotional)

ARFID – Development & Course (2)

- Infants

- May be irritable, difficult to console during feeding
 - May appear apathetic, withdrawal
- **Parent-child interaction** may contribute to feeding problem
 - Presenting food inappropriately
 - Interpreting infant behavior as act of aggression or rejection
- Inadequate nutritional intake → **may exacerbate associated features**
 - Irritability, developmental delays → further feeding difficulties
 - Infant temperament, developmental impairments may reduce responsiveness to feeding
- If feeding/weight improves with **changing caregiver**
 - Consider parental psychopathology, child abuse/neglect
- Growth delay → negatively affects development/learning potential

- Older children, adolescents, adults → **social functioning**

- All ages → **family function**, mealtime stress

ARFID – Risk & Prognostic Factors

- Temperamental
 - Anxiety disorders, autism spectrum disorder, OCD, ADHD
- Environmental
 - Familial anxiety
 - **Mothers with eating disorders**
- Genetic & Physiological
 - Hx GI conditions, GERD, vomiting

ARFID – Culture-Related Issues

- May finding similar presentations in various populations
 - US, Canada, Australia, Europe
 - Do not dx if related to specific religious/cultural practices

ARFID – Gender-Related Issues

- In infancy, early childhood → genders equal
- If comorbid autism spectrum disorder → MALE predominance
- If related to altered sensory sensitivities due to physiological conditions (**pregnancy**) → usually not extreme, do not dx

ARFID – Diagnostic Markers

- Malnutrition, low weight, growth delay
- Need for artificial nutrition
- No clear underlying medical condition

ARFID – Functional Consequences

- Developmental + functional limitations
 - Impairment of physical development, social difficulties
 - Negative impact on **family function**

ARFID – Differential Diagnosis

- Other medical conditions → can dx BOTH (if sufficiently severe)
 - GI conditions, food allergies/intolerances, occult malignancies
 - May have assoc vomiting, nausea, loss of appetite, abdo pain, diarrhea
 - ARFID → beyond physiological effect, may persist after resolution
 - Underling AMC/AMD may complicate feeding/eating
 - Elderly, post-surgical patients, chemotherapy
- Neurological conditions → can dx BOTH (if sufficiently severe)
 - Oral/esophageal/pharyngeal structure/function
 - Hypotonia, tongue protrusion, unsafe swallowing
- Reactive attachment disorder → can dx BOTH
 - RAD → can lead to disturbed caregiver-child r/s → affect feeding/intake
- Autism spectrum disorder → can dx BOTH
 - Rigid eating behaviors, heightened sensory sensitivities
- Anorexia nervosa → **CANNOT dx both**
 - Shared common symptoms, difficult to distinguish after late childhood
 - May deny fear of fatness → “non-fat phobic anorexia nervosa”
 - ARFID may precede AN

ARFID – Differential Diagnosis

- Anxiety disorders
 - Specific phobia → eating problem NOT primary focus (can be difficult)
 - Social anxiety disorder → fear of being observed eating
- OCD → can dx BOTH
 - Preoccupation with food, ritualized eating behavior
- MDD → can dx BOTH
 - Appetite loss, reduced intake usually **abate with resolution** of MDD
- Schizophrenia → can dx BOTH
 - Delusional beliefs → odd eating behaviors, avoidance of specific foods
- Factitious disorder (in order to assume sick role)
 - Intentional describe more restrictive diets, more complications
 - Dramatic, engaging, but inconsistent
- Factitious disorder imposed on another
 - May induce physical symptoms (failure to gain weight)
 - Caregiver receives dx

ARFID – Comorbidity

- Most common
 - Anxiety disorders, OCD
 - Neurodevelopmental disorders (ASD, ADHD, intellectual disability)

Anorexia Nervosa

Anorexia Nervosa – Diagnostic Criteria

- A. Restriction of energy intake**, leading to sig **low body weight**
- B. Intense fear or interfering behavior** about gaining weight/fat
- C. Disturbance in experience of one's body weight/shape**

Anorexia Nervosa – Diagnostic Specifiers

- *Specify subtype:*
 - **Restricting type:** no binge/purge in **past 3 months**
 - **Binge-eating/purging type:** episodes of bingeing OR purgeing in **past 3 months**
- *Specify if:*
 - **In partial remission:** no longer fully meeting Criterion A (still B + C)
 - **In full remission:** none of the criteria met for sustained period
- *Specify current severity:*
 - **Mild:** BMI ≥ 17
 - **Moderate:** BMI < 17
 - **Severe:** BMI < 16
 - **Extreme:** BMI < 15

Anorexia Nervosa – Subtypes

- Restricting type
 - Weight loss main via **dieting, fasting, excessive exercise**
- Binge-eating/purging type
 - Purging → **vomiting, laxative, diuretics, enemas**
 - May purge without binge-eating
- Crossover between subtypes → not uncommon
 - Describe **CURRENT symptoms** (vs longitudinal course)

Anorexia Nervosa – Diagnostic Features

- A) Persistent energy intake restriction
 - Below minimally normal level for age, sex, development, physical health
 - Usually after weight loss
 - In C&A → may be failure of **expected weight gain or maintenance**
 - (WHO/CDC) → BMI 18.5 = lower limit of normal
 - **BMI ≤ 17** = moderate/severe thinness, sig low weight
 - **BMI-for-age $<5^{\text{th}}$ percentile** = underweight (C&A)
- B) Intense fear of gaining weight/fat
 - **NOT alleviated** by weight loss → may actually increase
 - May not recognize/acknowledge fear → esp younger

Anorexia Nervosa – Diagnostic Features

- C) Disturbance in experience of body weight/shape
 - May feel **globally overweight**
 - May have **concern about certain body parts** (abdomen, buttocks, thighs)
 - **Checking techniques** (weighing, measuring, mirrors)
 - **Self-esteem** → highly dependent of perception of body shape/weight
 - “Impressive achievement”, “extraordinary self-control”
 - Weight gain → unacceptable failure of self-control
- Usually brought to help by family
 - If presenting on own → usually distress over **somatic/psychological sx**
 - Rare to complain about weight loss (lack insight, denial)

Anorexia Nervosa – Associated Features

- Semi-starvation + purging → medical sequelae
 - Affects most major organ systems
 - **Amenorrhea, abnormal vital signs** → common
 - Mostly reversible (with nutritional rehab) → **NOT loss of BMD**
 - Purging behaviors may lead to **abnormal labs** (not always)
- May have depressive sx if seriously underweight
 - Low mood, social withdrawal, irritability, insomnia, decr interest in sex
 - If sufficient severe → may additional dx MDD
- Obsessive-compulsive features
 - Related + unrelated to food → may be exacerbated by undernutrition
 - If not related to food, body shape, weight → may dx OCD

Anorexia Nervosa – Associated Features

- Rigidity
 - Eating in public, feelings of ineffectiveness, inflexible thinking
 - Desire to control environment, limited social spontaneity
 - Overly restrained emotional expression
 - **Binge-eating/purging type MORE impulsive**
 - MORE likely substance abuse
- Excessive levels of physical activity
 - Increase in activity often precedes disorder onset
 - May accelerate weight loss, may be difficult to control
- Misuse of medication
 - Manipulate dosages to achieve weight loss, avoid weight gain
 - If DM → may reduce insulin

Anorexia Nervosa – Prevalence

- 12-month prevalence in young females = 0.4%
 - Less common in males → **FEMALES 10x higher**

Anorexia Nervosa – Development & Course

- Onset
 - Commonly during **adolescence/young adulthood**
 - Rarely before puberty or after age 40
 - Often assoc with **stressful life event**
- Course highly variable
 - Younger age → atypical features, denying “fear of fat”
 - Older age → **longer duration** of illness, more sx
 - **Single episode, fluctuating pattern (relapses), or chronic course**
 - Most experience **remission within 5 years of presentation**
 - Hospitalization → to restore weight, medical complications
 - May have lower remission rates
- Death → commonly from medication complications or suicide
 - Crude mortality rate = **5% per decade**

Anorexia Nervosa – Risk & Prognostic Factors

- Temperamental
 - Anxiety disorders + obsessional traits in childhood → incr risk
- Environmental
 - Assoc with cultures/settings where **thinness is valued**
 - Occupations that encourage thinness (modeling, athletics)
- Genetic & Physiological
 - Incr risk of **AN/BN** in 1^o relatives of AN
 - Incr risk of **bipolar + depressive disorders** in 1^o relatives with AN
 - Especially binge/purge type
 - Higher concordance rates in monozygotic twins
 - Brain abnormalities on fMRI + PET (cause vs consequence?)

Anorexia Nervosa – Culture-Related Issues

- Across culturally + socially diverse populations
 - Probably most prevalent in post-industrialized, high-income countries
 - US, European, Australia, NZ, Japan
 - But uncertain incidence in low/middle-income countries
- Lower among Latinos, African Americans, Asians (in US)
 - May be due to lower rates of mental health utilization
 - Latinos may present more commonly without intense fear
- Lower rates of “fat phobia” in Asia

Anorexia Nervosa – Diagnostic Markers

<u>Hematology</u> <ul style="list-style-type: none"> • Leukopenia common, loss of all cell types, but lymphocytosis • Mild anemia, thrombocytopenia • Bleeding problems (rare) 	<u>Electrocardiography</u> <ul style="list-style-type: none"> • Sinus bradycardia • Arrhythmias (rare) • QTc prolongation
<u>Serum chemistry</u> <ul style="list-style-type: none"> • Dehydration (incr BUN) • Hypercholesterolemia • Incr liver enzymes and amylase • Decr Mg, Zn, Ph • Vomiting → metabolic alkalosis (incr bicarb, decr Cl/K) • Laxatives → mild metabolic acidosis 	<u>Bone mass</u> <ul style="list-style-type: none"> • Low BMD, specific areas • Sig incr risk of fracture <u>EEG</u> <ul style="list-style-type: none"> • Metabolic encephalopathy (diffuse abn due to electrolyte abn)
<u>Endocrine</u> <ul style="list-style-type: none"> • T4 = low-normal • T3 = low (reverse T3 high) • Females → low estrogen • Males → low testosterone 	<u>Resting energy expenditure</u> <ul style="list-style-type: none"> • Sig reduction

Anorexia Nervosa – Diagnostic Markers

- Physical signs + symptoms → often due to starvation
 - **Amenorrhea common** → usually after weight loss
 - If prepubertal → may delay menarche
 - Constipation, abdo pain, cold intolerance, lethargy, excess energy
 - **Emaciation**
 - **Abnormal vital signs** → hypotension, bradycardia, hypothermia
 - **Lanugo hair** (fine downy body hair)
 - **Peripheral edema** (weight restoration, cessation of laxatives/diuretics)
 - **Petechia, bruises on extremities** → bleeding diathesis
 - **Yellowing of skin** → hypercarotenemia
- If self-induced vomiting
 - **Salivary gland hypertrophy** (esp parotid)
 - **Dental enamel erosion**
 - **Scars/calluses on dorsal surface of hand** (Russel's sign)

Anorexia Nervosa – Suicide Risk

- Increase suicide risk = **12 per 100,000 per year (0.012%)**

Anorexia Nervosa – Functional Consequences

- Range of functional limitations
 - Some maintain social + professional function
 - Others have sig social isolation + academic/career impairment

Anorexia Nervosa – Differential Diagnosis

- Medical conditions (GI, thyroid, cancer, AIDS)
 - No associated cognitions (fear, disturbance in experience)
 - AN can occur after weight loss assoc with medical condition
- Major depressive disorder → no weight cognitions
- Schizophrenia → no weight cognitions
- Substance use disorders → no weight cognitions
 - AN may use substances to reduce appetite
- Social anxiety disorder, OCD, body dysmorphic disorder
 - Whether sx only related to eating/food/body shape
- Bulimia nervosa → not severely underweight
- Avoidant/restrictive food intake disorder → no weight cognitions

Anorexia Nervosa – Comorbidity

- Bipolar, depressive, anxiety disorders → common comorbidities
 - Many have anxiety disorder/symptoms prior to onset
- OCD (esp with restricting type)
- Substance/alcohol use disorders (esp with binge/purge type)

Bulimia Nervosa

Bulimia Nervosa – Diagnostic Criteria

- A. Recurrent **binge eating episodes**
 - 1. Eating excessive amount, over discrete period of time
 - 2. Sense of lack of control over eating
- B. Recurrent **inappropriate compensatory behaviors** (purge)
- C. Frequency = **weekly for 3 months**
- D. **Self-evaluation** unduly influenced by body shape/weight
- E. Not exclusively during anorexia nervosa

Bulimia Nervosa – Diagnostic Specifiers

- *Specify if:*
 - In partial remission
 - In full remission
- *Specify current severity (based on **compensatory** behaviors)*
 - **Mild:** >1 episodes per week
 - **Moderate:** >4 episodes per week
 - **Severe:** >8 episodes per week
 - **Extreme:** >14 episodes per week

Bulimia Nervosa – Diagnostic Features

- A) Recurrent binge-eating episodes
 - **Excessive amount of eating** in discrete period (usually <2 hours)
 - Consider context (not celebration meal, not continuous snacking)
 - **Sense of lack of control** (inability to refrain or stop)
 - May have dissociative quality, may abandon efforts to control eating
 - Can be planned → tend to eat foods they would otherwise avoid
 - Characterized more by abnormal amount (not specific nutrient)
 - Typically **ashamed** → attempt conceal
 - Eat until uncomfortably/painfully full
 - Triggers = **negative affect** (MOST COMMON)
 - Interpersonal stressor, dietary restraint, boredom
 - Negative feelings (about body weight, shape, food)
 - Delayed consequences → negative self-evaluation, dysphoria

Bulimia Nervosa – Diagnostic Features

- B) Inappropriate compensatory behaviors (purging)
 - Usually several methods to prevent weight gain
 - **Vomiting** = MOST COMMON
 - Relief from physical discomfort, reduction of fear of weight gain
 - May become goal in itself
 - Stimulate gag reflex, vomit at will, syrup of ipecac
 - Laxatives, diuretics, enemas, medications (thyroid, insulin)
 - Fasting, excessively exercise
- D) Excessive emphasis on body shape/weight in self-evaluation
 - Extremely important in determining self-esteem

Bulimia Nervosa – Associated Features

- Typically within normal or overweight (BMI 18.5 – 30)
 - Uncommon among obese individuals
 - Typically restrict calories between binges
- Medical consequences
 - Menstrual irregularities, amenorrhea (possibly due to weight Δ , nutritional deficiencies, or emotional distress)
 - Fluid + electrolyte abnormalities from purging
 - Rare, but fatal cx \rightarrow esophageal tears, gastric tears, cardiac arrhythmias
 - Repeated use of **ipecac** \rightarrow **cardiac/skeletal myopathies**
 - Chronic laxatives \rightarrow dependent for bowel movements
 - GI sx common, reports of rectal prolapse

Bulimia Nervosa – Prevalence

- 12-month prevalence in young females = 1 – 1.5%
 - Peaks in **older adolescence/young adulthood**
 - Less common in males → **FEMALES 10x higher**

Bulimia Nervosa – Development & Course

- Onset

- Commonly in **adolescence/young adulthood**
- Before puberty or after age 40 uncommon
- Often **during/after episode of dieting to lose weight**
 - Can also be precipitated by multiple stressful life events

- Course

- Usually persists for **several years**
- May be chronic or intermittent (remission/relapse)
- For many, symptoms **tend to diminish** (regardless of treatment)
- Treatment, remission >1 year → better long-term outcome
- Incr mortality rate (all-cause, suicide) → CMR = **2% per decade**

- Diagnostic cross-over

- **10-15% initially BN** → to AN (commonly revert back to BN)
- Some stop compensatory behaviors → BED or other specified

Bulimia Nervosa – Culture-Related Issues

- Roughly similar frequency in most industrialized countries
 - US, Canada, many European countries, AUS, NZ, Japan, South Africa
- Clinical studies in US → primarily white
 - Similar prevalence in other ethnicities

Bulimia Nervosa – Gender-Related Issues

- More common **FEMALES**

Bulimia Nervosa – Diagnostic Markers

- Lab abnormalities

- Fluid + electrolytes → **hypokalemia, hypochloremia, hyponatremia**
- Vomiting → **metabolic alkalosis** (loss of gastric acid)
- Laxatives, diuretics → **metabolic acidosis** (diarrhea, dehydration)
- **Incr serum amylase** (salivary isoenzyme)

- Physical exam

- Permanent **loss of dental enamel** (esp lingual surface)
 - Chipped, ragged, “moth-eaten”
 - More dental caries
- **Enlarged salivary glands** (esp parotid)
- Scars/calluses on dorsal surface of hand
- Syrup of ipecac → cardiac + skeletal myopathies

Bulimia Nervosa – Suicide Risk

- Increased suicide risk

Bulimia Nervosa – Functional Consequences

- Range of functional limitations
 - May have severe role impairment → most likely **social-life domain**

Bulimia Nervosa – Differential Diagnosis

- Anorexia nervosa, binge-eating/purging type
- Binge-eating disorder → no compensatory behaviors
- Kleine-Levin syndrome → no BN cognitions
- Major depressive disorder, with atypical features
 - Not BN cognitions
- Borderline PD → can have both dx

Bulimia Nervosa – Comorbidity

- Comorbidity is common
 - Incr bipolar + depressive disorders (can begin before, during, after BN)
 - Incr anxiety disorders
 - Mood + anxiety disturbances frequently remit after effective tx
- Lifetime prevalence of substance use = **30% of BN**
 - Esp alcohol or stimulants
 - Stimulants → attempt to control appetite + weight
- Personality disorders → most frequently **borderline PD**

Binge-Eating Disorder

Binge-Eating Disorder – Diagnostic Criteria

- A. Recurrent **binge eating episodes** (both of)
 - 1. Eating excessive amount, over discrete period of time
 - 2. Sense of lack of control over eating
- B. 3+/5 associated symptoms
 - 1. Eating much **more rapidly** than normal
 - 2. Eating until **uncomfortably full**
 - 3. Eating large amounts of food when **not feeling physically hungry**
 - 4. **Eating alone**, because **embarrassed** by how much one is eating
 - 5. Feeling **disgusted** with oneself, **depressed**, **very guilty afterward**
- C. **Marked distress** about binge eating
- D. Binge eating occurs **weekly for 3 months**
- E. Not associated with inappropriate compensatory behavior, and not exclusively during BN or AN

Binge-Eating Disorder – Diagnostic Specifiers

- *Specify if:*
 - In partial remission
 - In full remission
- *Specify current severity (based on binge-eating episodes)*
 - **Mild:** >1 episodes per week
 - **Moderate:** >4 episodes per week
 - **Severe:** >8 episodes per week
 - **Extreme:** >14 episodes per week

Binge-Eating Disorder – Diagnostic Features

- A) Recurrent binge-eating episodes
 - **Excessive amount of eating** in discrete period (usually <2 hours)
 - Consider context (not celebration meal, not continuous snacking)
 - **Sense of lack of control** (inability to refrain or stop)
 - May have dissociative quality, may abandon efforts to control eating
 - Can be planned → tend to eat foods they would otherwise avoid
 - Characterized more by abnormal amount (not specific nutrient)
 - Typically **ashamed** → attempt conceal
 - Eat until uncomfortably/painfully full
 - Triggers = **negative affect** (MOST COMMON)
 - Interpersonal stressor, dietary restraint, boredom
 - Negative feelings (about body weight, shape, food)
 - Delayed consequences → negative self-evaluation, dysphoria

Binge-Eating Disorder – Associated Features

- Occurs in normal, overweight, obese individuals
 - Reliably assoc with overweight + obesity
 - But **most obese individual do not engage** in recurrent binge-eating
- Obese with BED
 - Consume **more calories** (vs non-BED obese)
 - Greater functional impairment
 - Lower quality of life
 - More subjective distress
 - Greater psychiatric comorbidity

Binge-Eating Disorder – Development & Course

- Binge-eating, loss-of-control eating (without excessive intake)
 - Can occur in children, common in **adolescents + college-age samples**
 - May be prodromal phase of other eating disorders
 - Assoc with incr body fat, weight gain, incr psychological sx
- Typically begins in adolescence/young adulthood
 - In BED → **dieting FOLLOWS** binge eating
 - In BN → **dieting PRECEDES** binge eating
 - BED seeking tx → usually older than BN/AN seeking tx
- Persistent course → severity/duration comparable to BN
 - **Remission rates higher in BED** (vs BN/AN)
 - Crossover from BED to other eating disorders = UNCOMMON

Binge-Eating Disorder – Risk & Prognostic Factors

- Genetic & Physiological
 - BED runs in families → additive genetic influences

Binge-Eating Disorder – Culture-Related Issues

- Similar frequencies in most industrialized countries
 - Canada, US, European countries, Australia, NZ
 - In US → similar rates among white, Latinos, Asian, African-American

Binge-Eating Disorder – Functional Consequences

- Compared to BMI-matched controls (without BED)
 - Role adjustment problems
 - Impaired health-related quality of life, life satisfaction
 - Incr medical morbidity + mortality
 - Assoc incr health care utilization
- May incr risk for weight gain + obesity

Binge-Eating Disorder – Differential Diagnosis

- Bulimia nervosa
 - BED → no inappropriate compensatory behavior or dietary restriction to influence body weight before binge-eating episodes
 - May have frequent attempts at dieting
 - Higher rates of improvement
- Obesity
 - BED → higher levels of overvaluation of body weight/shape
 - Higher rates of psychiatric comorbidity
 - Effective psychological tx for BED (none for obesity)
- Bipolar & depressive disorders → can have both dx
- Borderline PD → can have both dx

Binge-Eating Disorder – Comorbidity

- Significant psychiatric comorbidity
 - Comparable to BN/AN
 - Most common = bipolar, depressive, anxiety disorders
 - Also SUD (lesser degree)
 - Linked to severity of **binge-eating** (not obesity)

Other Specified Feeding or Eating Disorder

Other Specified Feeding or Eating Disorder

- Does not meet full criteria
- Clinician chooses to specify reason
- Atypical anorexia nervosa: weight within/above normal range
- Bulimia nervosa (of low frequency/limited duration)
- Binge-eating disorder (of low frequency/limited duration)
- Purging disorder (absence of binge-eating)
- Night eating syndrome

Unspecified Feeding or Eating Disorder

Unspecified Feeding or Eating Disorder

- Does not meet full criteria
- Clinician chooses NOT to specify reason