Maine Pediatric & Behavioral Health Partnership

Eating Disorders

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Maine Pediatric and Behavioral Health Partnership (MPBHP) is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $1,851,222.00 with zero percentage financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

MPBHP is a partnership between Maine CDC, Northern Light Acadia Hospital and MaineHealth

Northern Light Acadia Hospital

Department of Health and Human Services

MaineHealth

Learning Objectives

Providers will:

1. Recognize the signs and symptoms of eating disorders and how to screen for them
2. Understand the medical complications of Anorexia Nervosa
3. Learn how to triage based on medical acuity, manage the medical complications, and refer to specialized eating disorder services

Integrity & Independence in Continuing Interprofessional Development

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All relevant financial relationships have been mitigated.

What is an Eating Disorder?

Serious, treatable mental illness with significant medical and psychiatric morbidity and mortality – **regardless of an individual's body shape or size**

Affect every age, sex, gender, race, ethnicity, and socioeconomic group.

Biological, psychological and sociocultural factors come together

Blameless illness

Maladaptive coping strategies for trauma, feeling 'out of control' and intense emotions

What is Anorexia Nervosa (AN)?

1. Self-induced dieting resulting in significantly low body weight

2. Intense **fear of weight gain** or behavior that interferes with weight gain

3. Fundamental disturbance in the way one perceives his/her body weight or shape

4. Weight "less than minimally normal" in adults or "less than minimally expected" in children/adolescents

5. Subtypes:
   - **Restricting**: weight loss primarily accomplished through dieting, fasting, and/or excessively exercising
   - **Binge-purge**: must engage in binge eating or purging behaviors at least one time weekly over a 3-month time period
     → Purging behaviors include self-induced vomiting, diuretic misuse, laxative/enema misuse, and diet pill misuse

What are the warning signs and behavioral cues of AN?

- Excessive or compulsive exercise (especially at odd hours)
- Sudden interest in “healthy eating, vegetarianism, veganism”
- Weight less than minimally normal or less than minimally expected
- Significant decrease in normal growth chart curve for weight
- Bradycardia, orthostatic vital sign changes, syncope, or chest pain
- Absence of, delayed onset or sporadic menses in females
- Fatigue, cold intolerance, or dizziness
- Odd food rituals and mealtime avoidance
- Hair loss/thinning or lanugo on face/arms/torso
- Dry or yellowish skin
- Upper and/or lower gastrointestinal dysfunction
- Early satiety and bloating

Individuals with Anorexia Nervosa will often present with normal labs and vitals.

What is Avoidant Restrictive Food Intake Disorder (ARFID)?

- Food restriction/avoidance **without** weight or shape concerns, i.e. lack of interest in eating, avoidance based on the sensory characteristic of food, concern about aversive consequences of eating, such as the fear of choking

- Persistent failure to meet appropriate nutritional or energy needs with at least one of the following:
  - Significant weight loss (or failure to achieve expected weight gain)
  - Significant nutritional deficiency
  - Dependence on enteral feeding or nutritional supplements
  - Marked interference with psychosocial functioning
  - The eating disturbance is not due to a concurrent medical condition and is not better explained by another mental disorder

What are the Warning Signs of ARFID?

- Greater perceived intensity of taste, smell and/or texture
- Food neophobia: initial disgust, fear or suspicion of novel or unfamiliar foods
- Increased salience of small changes in food presentation
- Weight loss or gain
- Nutritional deficiencies
- Sticking to safe, familiar foods

Statistics:

- Nearly ½ of children with ARFID report fear of vomiting or choking
- 1/3 of children with ARFID have a mood disorder
- 75% of children with ARFID have an anxiety disorder
- 20% of children with ARFID are on the autistic spectrum

What is Binge Eating Disorder (BED)?

1. Recurrent episodes of binge eating that occur at least once a week on average for 3 months
2. No recurrent inappropriate compensatory behaviors
3. At least 3 of the following:
   - Eating rapidly
   - Eating until uncomfortably full
   - Eating large amounts when not hungry
   - Eating alone because embarrassed about quantity of food consumption
   - Feeling disgusted, depressed, or guilty after eating

Definition of a "binge" episode:

- eating an amount of food in a discrete period of time that is larger than most individuals would consume in a similar time under similar circumstances
- a sense of **lack of control** over eating during the episode must also be present

What are the Warning Signs of BED?

- Eating alone
- Eating large amounts of food even when not feeling physically hungry
- Complaints of GI issues
- Weight fluctuation
- Low self-esteem
- Frequent dieting
- Feeling disgusted with oneself

Statistics:

- Most common eating disorder
- Lifetime prevalence: 3.5% of women and 2% of men

Individuals with Binge Eating Disorder are often of average weight to higher-than-average weight.

What is Bulimia Nervosa (BN)?

1. Recurrent episodes of binge eating that occur at least once a week for 3 months
2. Repeated **compensatory** behaviors to counteract weight gain (self-induced vomiting, laxative/diuretic/enema use, food restriction, excessive exercise)
3. Disturbance in self-perceived weight or shape

Warning Signs:

- Fluctuating weight
- Missing food around the house or secret eating
- Russell's sign (cuts/callouses on the back of the hand from purging)
- Tooth decay from vomiting
- Using bathroom after meals
- Acid reflux
- Dehydration
- Sore throat and hoarse voice
- Swollen glands, puffy cheeks, or broken blood vessels under the eyes

Why is this information important to me, the pediatrician?

- Over 50% of eating disorder diagnoses are **missed** during a health care system encounter

- Most medical complications are **reversible** and **treatable** if identified early in the illness; however, a few are associated with permanent harm

- Successful treatment of eating disorders is **inversely related to the duration** of the untreated illness

- Anorexia Nervosa has the **highest** mortality rate of any psychiatric disorder, 12x higher than age-matched controls

- Bulimia Nervosa has a mortality rate 2x that of age-matched controls

How can I screen for eating disorders in an outpatient clinic appointment?

Eating Disorder Screen for Primary Care:

- **Are you satisfied with you eating patterns?**
- Do you ever eat in secret?
- **Does your weight affect the way you feel about yourself?**
- Have any members of your family suffered with an eating disorder?
- Do you currently suffer with or have you suffered with an eating disorder in the past?

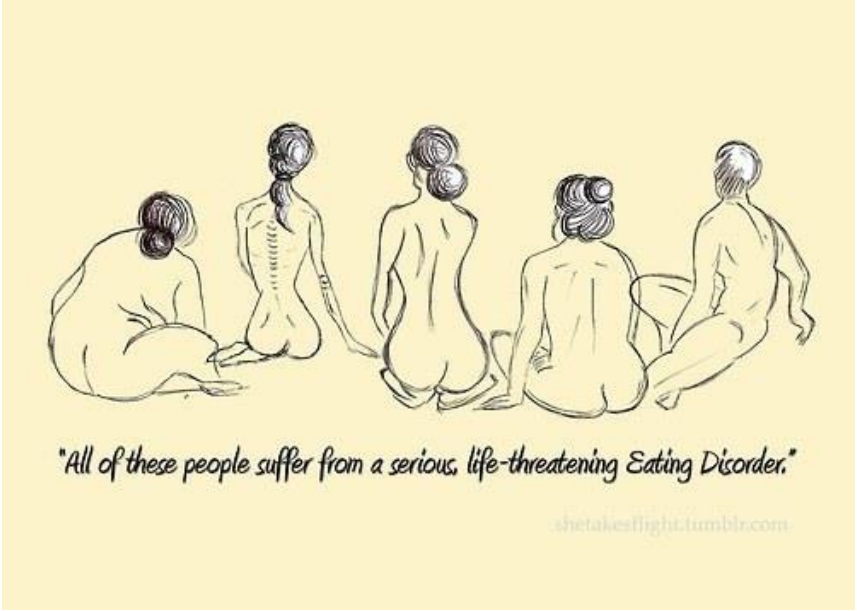
SCOFF Questionnaire:

- Sick – Do you make yourself **sick** because you feel uncomfortably full?
- Control – Do you worry you have lost **control** over how much you eat?
- Over – Have you recently lost **over** 14 pounds in a 3-month period?
- Fat – Do you believe yourself to be **fat**, yet others say you are too thin?
- Food – Would you say that **food** dominates your life?

How could an eating disorder present to my office?

With eating disorders, seemingly healthy males and females present to their physicians with a myriad of seemingly benign complaints, most commonly:

- Dizziness
- Fatigue
- Syncope
- Seizures – real and psychogenic
- Amenorrhea
- Abdominal pain, constipation
- Epistaxis
- Paresthesia
- Edema



What are the medical complications of AN?

…the direct result of starvation and weight loss

Cardiovascular
Bradycardia and hypotension
Sudden death – arrhythmia
Refeeding syndrome
Echo changes
Pericardial effusions

Dermatologic
Dry skin
Alopecia
Lanugo hair
Starvation-associated pruritus
Acrocyanosis

Gastrointestinal
Constipation
Refeeding pancreatitis
Acute gastric dilatation
Hepatitis
Dysphagia
SMA syndrome

Endocrine and Metabolic
Amenorrhea
Unintended pregnancy & miscarriages
Osteoporosis
Thyroid abnormalities
Hypercortisolemia
Hypoglycemia
Neurogenic diabetes insipidus
Hypophosphatemia
Hyponatremia

Hematologic
Pancytopenia
Decreased sedimentation rate

Neurologic
Cerebral atrophy

Ophthalmic
Lagopthalmos

Auditory
Patulous eustachian tube dysfunction

Pulmonary
Aspiration pneumonia
Respiratory failure
Spontaneous pneumothorax
Emphysematous PFT changes

What are the medical complications of BN?

…directly correlated with the mode and frequency of purging behaviors

<u>Gastrointestinal</u>
Dental erosion and caries
Parotid gland swelling
Esophageal rupture
Gastroesophageal reflux (GERD)
Constipation due to laxative abuse
Rectal prolapse
Mallory-Weiss tear

<u>Pulmonary-Mediastinal</u>
Aspiration pneumonitis
Pneumomediastinum

<u>Ophthalmic</u>
Scleral hemorrhage

<u>ENT</u>
Epistaxis
Pharyngitis

Finding of significant hypokalemia, in an otherwise healthy appearing young woman, is highly specific for bulimia nervosa – inquire at all medical interactions!

<u>Cardiac</u>
Arrhythmias
Diet pill toxicity
Palpitations
Emetine cardiomyopathy

<u>Endocrine</u>
Irregular menses
Mineralocorticoid excess
Diabulimia

<u>Metabolic</u>
Hypokalemia
Dehydration
Nephropathy
Metabolic alkalosis
Pseudo Bartter's syndrome

<u>Dermatologic</u>
Russel's sign
Edema

What lab work and diagnostic tests should be ordered?

Lab Studies:
- Complete Blood Count
- Comprehensive Metabolic Panel
  - Check electrolytes for hypokalemia, hypochloremia, or elevated CO2
  - Check for renal failure
- Thyroid Function Tests
- Serum pH and urine ketones
- Phosphorous

Other Tests:
- Electrocardiogram – look for arrhythmias and QTc
- DEXA scan

How can “ED” fool a provider?

- **Watch for water loading** – in the shower, from the sink, from the toilet
  → check random weights, urine specific gravity, serum sodium levels, urine electrolytes

- **Be wary of requests for more laxatives** – monitor and document bowel movements before flushing
  → check KUBs to evaluate for stool burden

- **Watch for purging** – follow the odor and check for vomit hidden in plastic bags, gloves, cups, in laundry baskets, in luggage
  → check serum electrolytes

- **Watch for weight manipulation** – weigh in gowns, jumping jack before stepping on the scale

- **Watch for hidden laxatives and diuretics** – in hair brushes, sewn into stuffed animals, hidden in balls of yarn, sewn into bra padding

When does an eating disorder patient need to be medically (inpatient) hospitalized?

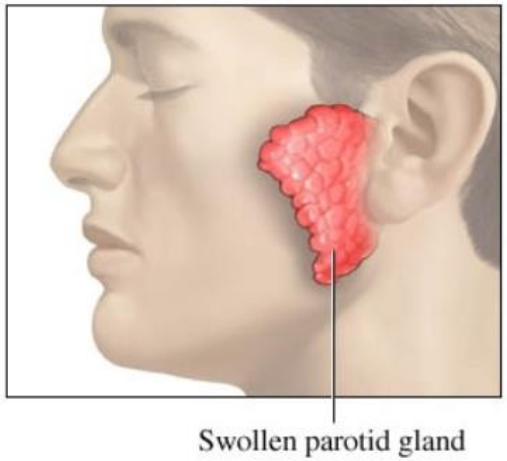
- Less than 70% of ideal body weight
- Heart rate < 40 bpm
- BP<80/50 mmHg
- Orthostatic changes in pulse (>20 bpm) and/or blood pressure (>10mmHg) with position change
- Hypothermia (<35.6C)
- Phosphorus <2
- Potassium <2.7 mmol/L
- Bicarbonate > 38 mmol/L
- Medical complications, such as syncope, seizure, heart failure, ECG abnormalities, etc.
- Excessive edema or history of edema with previous attempts at cessation of purging behaviors
- Severe malnutrition

What are some Take Home Points about Anorexia Nervosa?

- Medical problems are caused by **starvation and weight loss.**
- Most **medical problems reverse** with judicious nutritional rehabilitation and weight restoration. Osteoporosis is an exception.
- **Refeeding can be deadly** and should not be undertaken with severely underweight patients in the outpatient setting.
- Patients weighing **less than 70% of IBW** should optimally refeed in a hospital setting with experienced providers.
- Many patients with severe AN languish in hospitals without **sufficient expertise** and cannot move on to much-needed inpatient psychiatric care.

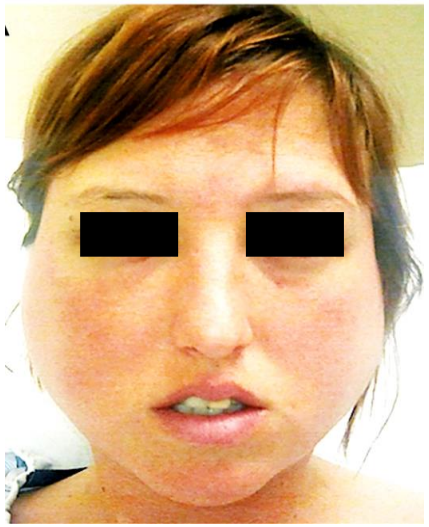
What are some Take Home Points about Bulimia Nervosa?

- Medical problems are caused by the **mode and frequency** of purging
- Severe **fluid and electrolyte shifts** can be life-threatening
- Patients with a history of **severe edema**, difficult **diuretic/laxative detoxification**, or severe **hypokalemia** should be managed in a hospital setting with experienced providers


Swollen parotid gland

Acute Sialadenosis

- Bilateral swelling of parotid glands
- Usually appearing three days after cessation of purging by vomiting
- Painful and disfiguring



What are some good ED resources for families?

The National Eating Disorder Association
www.nationaleatingdisorders.org

Family-Based Therapy Resources
www.maudsleyparents.org
www.feast-ed.com
"Help Your Teenager Beat An Eating Disorder" (James Locke, MD and Daniel LeGrange, PhD)
"Brave Girl Eating" (Harriet Brown)
"Survive FBT: Skills Manual for Parents Undertaking Family Based Treatment (FBT) for Child and Adolescent Anorexia Nervosa" (Maria Ganci)
"My Kid is Back – Empowering Parents to Beat Anorexia" – June Alexander and Daniel Le Grange

Workbooks for Teens
"What's Eating You" (Tammy Nelson, MS)
"The Perfectionism Workbook for Teens" (Ann Marie Dobosz, MA, MFT)
"Don't Let Your Emotions Run Your Life" (Sheri Van Dikj, MSW)
"The Mindfulness and Acceptance Workbook for Teen Anxiety" (Sheri L. Turrell, PhD, Christopher McCurry, PhD, Mary Bell, MSW)

Avoidant Restrictive Food Intake Disorder
"ARFID: A Guide for Parents and Carers" (Rachel Bryant-Waugh)

What are some good ED resources for families?

Adults with Eating Disorders
"The Inside Scoop on Eating Disorder Recovery" (Colleen Reichmann, PSYD and Jennifer Rollin, LCSW-C)
"8 Keys to Recovery From An Eating Disorder Workbook" (Carolyn Costin and Gwen Schubert Grabb)
"Overcoming Your Eating Disorder: A Cognitive-Behavioral Therapy Approach for Bulimia Nervosa and Binge-Eating Disorder" (W. Stewart Agras and Robin F. Apple)

Body Image
"Body Kindness" (Rebecca Scritchfield, RDN)
"The Body Image Workbook" (Thomas Cash)
"Cognitive Behavioral Therapy for Body Dysmorphic Disorder" (Sabine Wilhelm, Katharine A. Phillips, Gail Steketee)
"Self-Compassion" (Kristin Neff, Ph.D.)
"The Mindfulness Self-Compassion Workbook" (Kristin Neff, Ph.D. and Christopher Germer, Ph.D.)

Other Resources
"Decoding Anorexia" (Carrie Arnold)
"Life Without Ed" (Jenni Schaefer) "Goodbye Ed, Hello Me" (Jenni Schaefer)
"Sick Enough" (Jennifer Gaudiani)
"Nourish" (Heidi Schauster)
"Health at Every Size" (Linda Bacon)
www.haescommunity.com
"Intuitive Eating" Book "The Intuitive Eating Workbook" (Evelyn Tribole and Elyse Resch)
"Running in Silence – My Drive for Perfection and the Eating Disorder that Fed It" (Rachael Steil)

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