Identification and Early Management of Restrictive Anorexia Nervosa in Primary Care

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1.	Whole Health Nutrition	Co-Owner	01/28/2021		01/28/2021

All Potential Conflict of Interest have been resolved prior to the start of this program: Yes
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OBJECTIVES

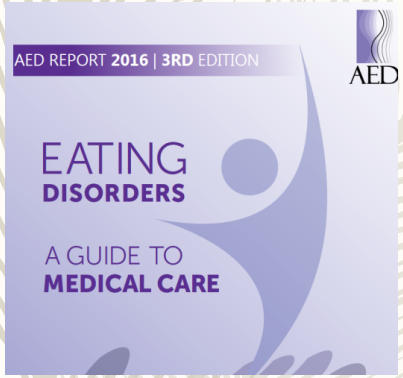
1. Identify the key historical and physical features of Anorexia Nervosa

2. Identify the basic elements of outpatient evaluation: nutritional, medical, psychological

3. Identify the basic elements of outpatient treatment: nutritional, medical, psychological

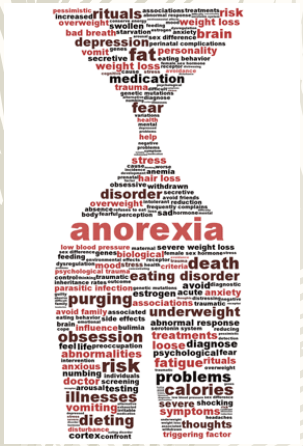
ANOREXIA IN BRIEF

WHY DO WE WORRY?



- Significant life-threatening medical and psychiatric morbidity and mortality
- Highest mortality rate of any psychiatric disorder
- Patients may not acknowledge that they are ill and/or may not accept the need for treatment.
- Only 33-50% achieve recovery by 5yrs
- We continue to underdiagnose

CURRENT UNDERSTANDING



- Interface:
  - Genetic and biological predispositions
  - Environmental and sociocultural influences
  - Psychological traits
- Lifetime prevalence 0.5-2%
- Peak onset age 13-18yo
- Does not discriminate, affect people of all:
  - Ages, genders, ethnicities, weights, shapes, sizes and SES

- **Not caused by families, not chosen by patients**

Successful Treatment

- **Nutritional rehab is an important factor in improving cognitions and is the primary initial focus of treatment instead of causation**
- Caregivers are critical allies in treatment
- Outpatient family based treatment has growing evidence base
- Better Prognosis:
  - Early diagnosis and intervention, shorter duration
  - Positive parent-child relationship
  - No purging
  - Less weight loss
  - No psychiatric co-morbidity

Adolescent Medicine Eating Disorder Consult Clinic (EDCC)

Dr. Erica Gibson MD
Dr. Aubrey Carpenter PHD
Wendy Bliss RN
Karie McGuire DSW, LICSW

EDCC

- Consultation and collaborative care with medical homes
- Initial 2 hour intake: Medical and Psychological
  - Diagnosis, education, initial recommendations for care and LOC
- Referral to Registered Dieticians and Mental Health Providers
- Q4-6week visits at EDCC
- Secure team communication/care conferences as needed

- **Patients still need ongoing close f/u by PCP**

May 12

MIND

I Have an Eating Disorder but Can't Escape the Kitchen

I feared that food would be the vector for the virus, the thing that sickened me or made me unknowingly symptomatic.

By Susan Burton

June 5

HEALTH

Disordered Eating in a Disordered Time

Social isolation and unstructured days add to the anxiety of those struggling to achieve a healthy relationship with food.

By Emma Goldberg

PRINT EDITION
June 9, 2020, Page D7

May 3

SPORTS

Disruptions Add to Risks for Athletes With Eating Disorders

The coronavirus pandemic has disrupted eating and fitness routines, potentially compounding the stress of those, including athletes, who have eating disorders.

By Karen Crouse

HEALTH

Eating disorders 'thrive in isolation': Coronavirus quarantine has led to a nearly 80% increase in calls for help, experts say

Jessica Flores USA TODAY

Published 1:26 a.m. ET Sep. 11, 2020 | **Updated 12:46 p.m. ET Sep. 11, 2020**

NEDA
Feeding hope.

Eating Disorders have increased exponentially in the Era of COVID-19

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Eating Disorders

Eating Disorder Care Recommendations: Primary Care Providers, Emergency Room Providers, Registered Dieticians, Mental Health Providers

AAP Clinical Report: Identification and Management of Eating Disorders in Children and Adolescents

Position Paper of the Society for Adolescent Health and Medicine: Medical Management of Restrictive Eating Disorders in Adolescents and Young Adults

AAP Clinical Report: Preventing Obesity and Eating Disorders in Adolescents

Nutrition Tips for a Balanced Diet: Starter Guide from Whole Health Nutrition

National Eating Disorder Association Parent Toolkit

SHORT NEDA Parent Toolkit

Adolescent Residential Eating Disorder Centers - Updated Nov 2020

Regional Eating Disorder Programs with Intensive Outpatient Programs and Partial Hospitalization Programs (Nov 2020)

UVMMC Inpatient Pediatrics Voluntary Nutritional Deficiency Pathway for Medical Stabilization (August 2020)

UVMMC Inpatient Pediatrics Voluntary Nutritional Deficiency Pathway for Medical Stabilization: Family Booklet (Aug 2020)

16yo female coming in for concern for restrictive eating, weight loss

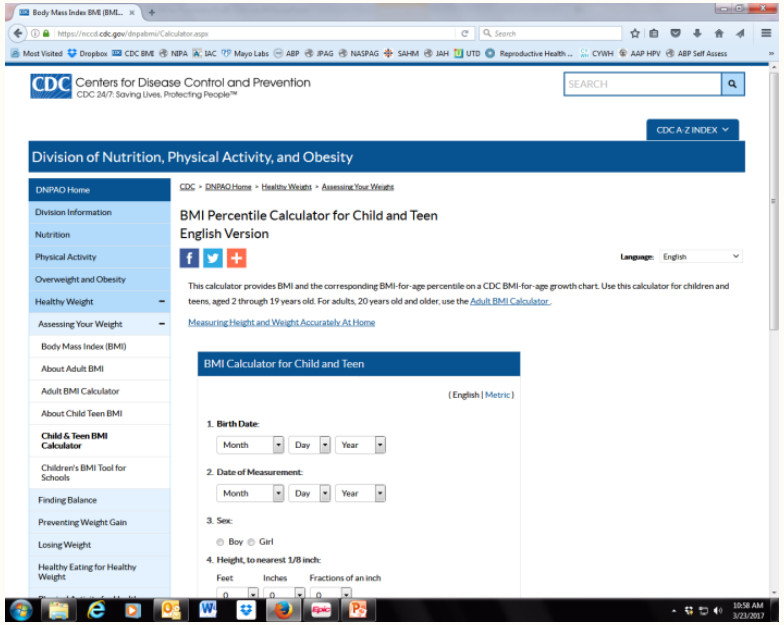
CASE

How do you prepare for this visit?

- Review medical records with special attention to:
  - Growth charts: Weight, Height, **BMI%**
  - Previous vital signs: HR, BP
- What vitals, POCT at visit?
  - Regular seated vitals to begin
    - *Consider orthostatics:lie for 5min, stand for 1min, stand for 3min*
  - Weight in light street clothes
    - *Consider weight in gown-only after emptying bladder*
  - Blinded weight (have them face away from scale, make sure screener hides weight)
  - Consider urine specific gravity to check hydration status, check for water loading

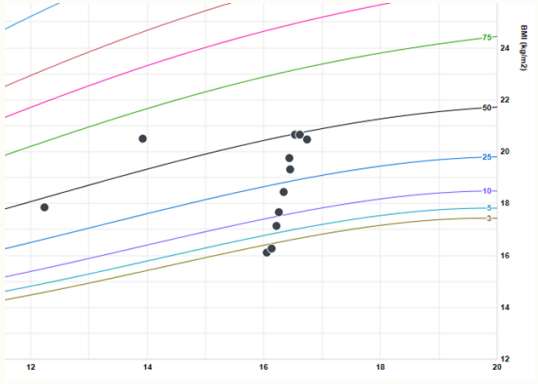
Expected Body Weight (EBW)

- Evaluate historical growth charts, BMI%
- Calculate EBW for EBMI% with CDC calculator



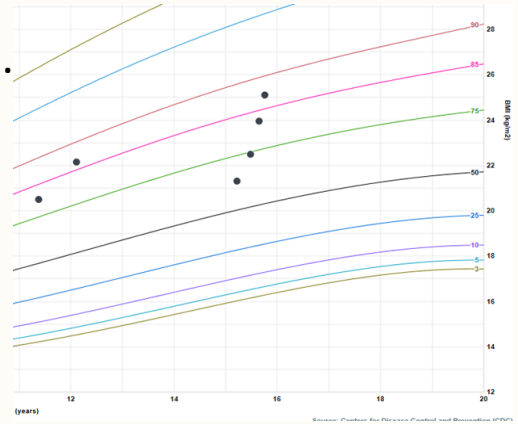
Previous BMI% will help you estimate Expected Body Weight

1.



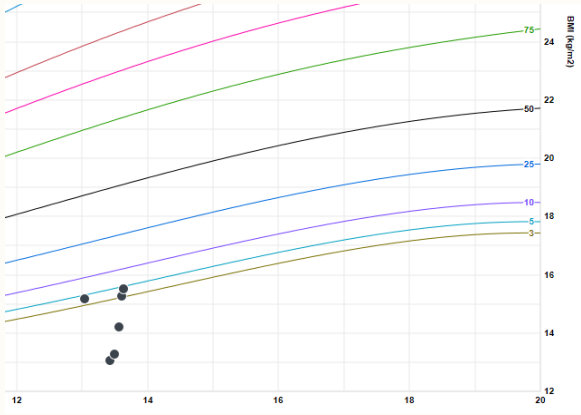
Was growing at 50% BMI so goal set at 50% BMI

2.



Was growing above 75% BMI so goal set at 75% BMI

3.



Was growing 15% BMI so goal set at 25% BMI

SUGGESTED ASSESSMENT OF SEVERITY OF WEIGHT LOSS

Mild -
80-90% Goal BMI% or
>10% Body Mass Loss

Moderate -
70-79% Goal BMI% or
>15% Body Mass Loss

Severe -
<70% Goal BMI % or
>20% Body Mass Loss

**BMI Z score may also be used

Golden et al. 2015

Prepare to assess vital signs for "cardiovascular instability"

- HR <50 while awake
- HR <40 while asleep
- SBP <80-90mmHg
- Postural changes from lying 5mins to standing 3mins
  - SBP decreases >20
  - DBP decreases >10
  - HR increases >20

*Due to compromised CV system and/or volume depletion

History

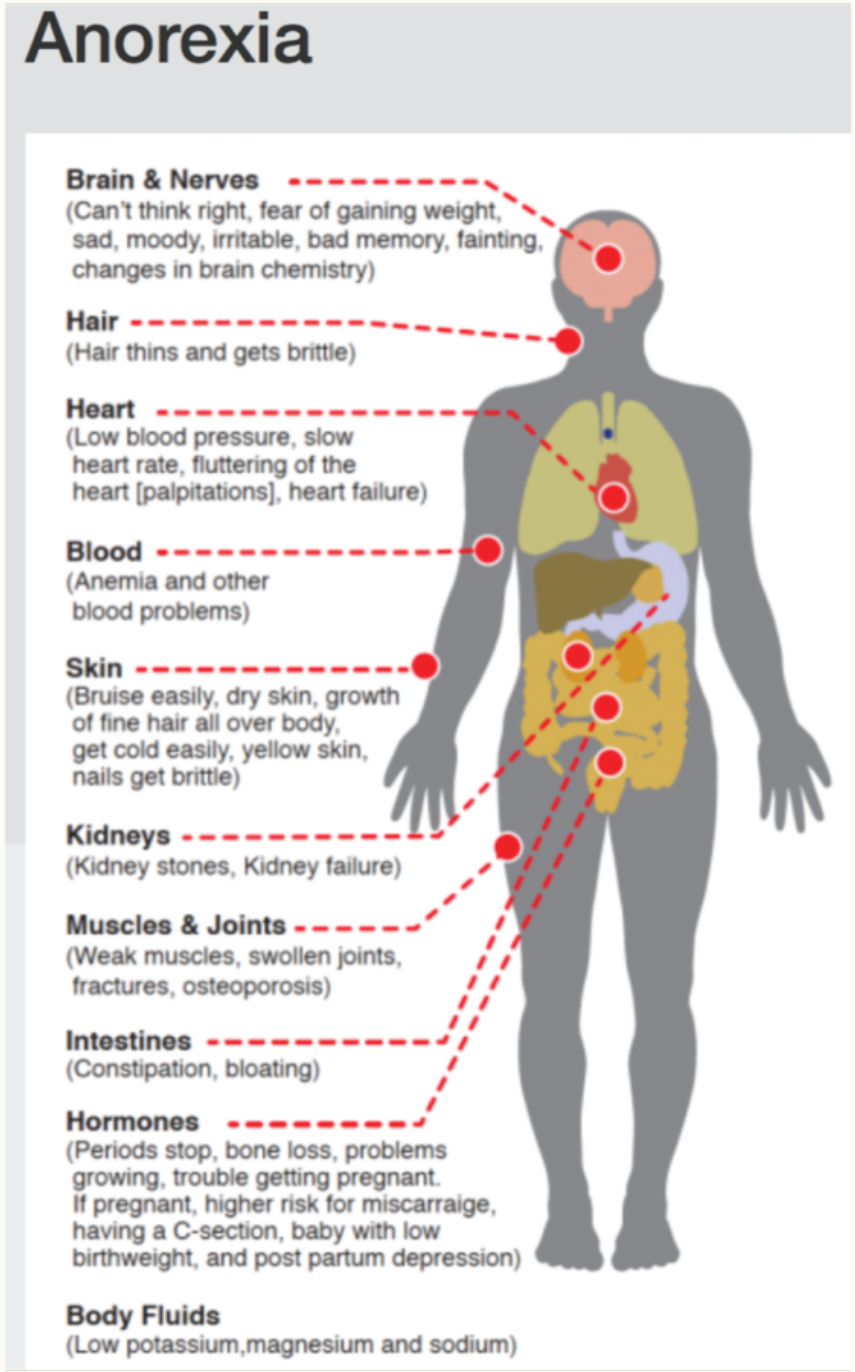
HPI

- 16yo female with mild baseline anxiety
- High level gymnast
- Learned in health class about food processing plants, danger of saturated fats
- 1y ago decided to become a vegetarian, thinking about becoming a vegan
- Stopped eating with family, prepared own foods

WITH ONSET OF PANDEMIC

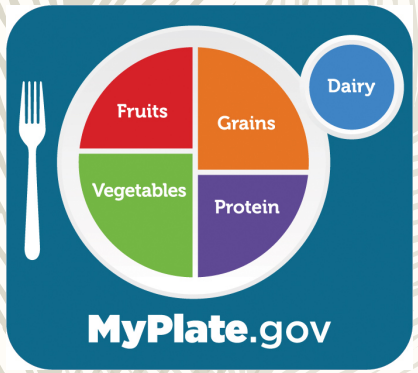
- Also started running 5 times per week
- Anxiety increased with decreased socialization, online learning
- Started meeting with a counselor via telehealth
- Family did not want to come to in-person primary care visits due to Covid
- Menses stopped this fall
- Family noticed significant wt loss & scheduled in person visit


Normal Eating
Worried Eating
Disordered Eating
Eating Disorder



Key Medical History/ROS

Key nutrition history



- **Eating disorder screen questions: SCOFF or ESP**
- 24-hour Diet Recall or "Typical day"
  - All meals, snacks + beverages
  - *"Have there been any changes to your diet in the past _____?"*
  - *"Are there any foods you're not eating?"*
- Behaviors
  - *"Do you eat with your family?"*
  - *"Are you counting calories?"*
- Exercise
  - Frequency, duration, intensity, rest days, environment
- Gastrointestinal function
  - Bloating, constipation, nausea, cramping, pain, vomiting…?

Key nutrition history

Coming to terms with risk factors for eating disorders: application of risk terminology and suggestions for a general taxonomy

Corinna Jacobi [1], Chris Hayward, Martina de Zwaan, Helena C Kraemer, W Stewart Agras

Affiliations + expand

PMID: 14717649 DOI: 10.1037/0033-2909.130.1.19

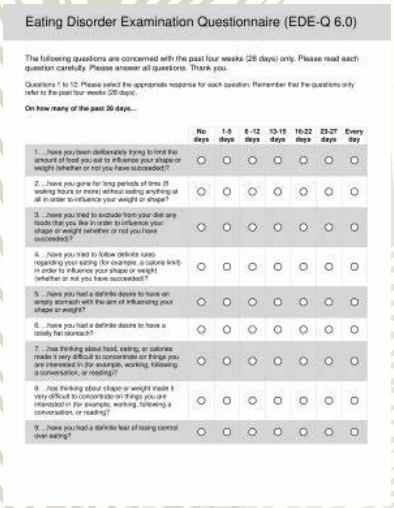
Abstract

The aims of the present review are to apply a recent risk factor approach (H. C. Kraemer et al., 1997) to putative risk factors for eating disorders, to order these along a timeline, and to deduce general taxonomic questions. Putative risk factors were classified according to risk factor type, outcome (anorexia nervosa, bulimia nervosa, binge-eating disorder, full vs. partial syndromes), and additional factor characteristics (specificity, potency, need for replication). Few of the putative risk factors were reported to precede the onset of the disorder. Many factors were general risk factors; only few differentiated between the 3 eating disorder syndromes. Common risk factors from longitudinal and cross-sectional studies were gender, ethnicity, early childhood eating and gastrointestinal problems, elevated weight and shape concerns, negative self-evaluation, sexual abuse and other adverse experiences, and general psychiatric morbidity. Suggestions are made for the conceptualization of future risk factor studies.

Key psychological history

- **Confirming timeline, keeping in mind theory of ED as a coping mechanism**
  - "What else what happening in your life and at school when this all started?"
- **How has family reacted to symptom onset and worsening?**
- **Helpful information to make note of but not necessarily intervene for:**
  - Family history of disordered eating or weight issues
  - Family values regarding health, fitness, appearance, perfectionism
  - Enmeshment with parents or providers
  - History of interaction with healthcare systems
  - Availability of caregivers for parent-assisted meals

Key psychological history


Eating Disorder Examination Questionnaire (EDE-Q 6.0)

The following questions are concerned with the past four weeks (28 days) only. Please read each question carefully. Please answer all questions. Thank you.

Questions 1 to 12: Please select the appropriate response for each question. Remember that the questions only refer to the past four weeks (28 days).

On how many of the past 28 days...

	No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every day
1. ...have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?	○	○	○	○	○	○	○
2. ...have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your weight or shape?	○	○	○	○	○	○	○
3. ...have you tried to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?	○	○	○	○	○	○	○
4. ...have you tried to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?	○	○	○	○	○	○	○
5. ...have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?	○	○	○	○	○	○	○
6. ...have you had a definite desire to have a totally flat stomach?	○	○	○	○	○	○	○
7. ...has thinking about food, eating, or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?	○	○	○	○	○	○	○
8. ...has thinking about shape or weight made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?	○	○	○	○	○	○	○
9. ...have you had a definite fear of losing control over eating?	○	○	○	○	○	○	○

- **Ruling out other contributions to food avoidance**
  - Food insecurity
  - Avoidance due to food allergies
  - Fear of choking/PTSD
  - Sensory concerns and texture aversions
- **Use of self-report questionnaires to facilitate diagnosis**
  - **Eating Disorders Examination Questionnaire (EDE-Q),** Eating Attitudes Test (EAT-26), Body Uneasiness Test, Eating Disorders Inventory
- **Use of questionnaires to assess for premorbid and comorbid psychopathology**
  - Can inform recommended therapeutic modality and/or warrant initiation of SSRI sooner rather than later (e.g., ASEBA measures, CDI, MASC)

Physical Exam

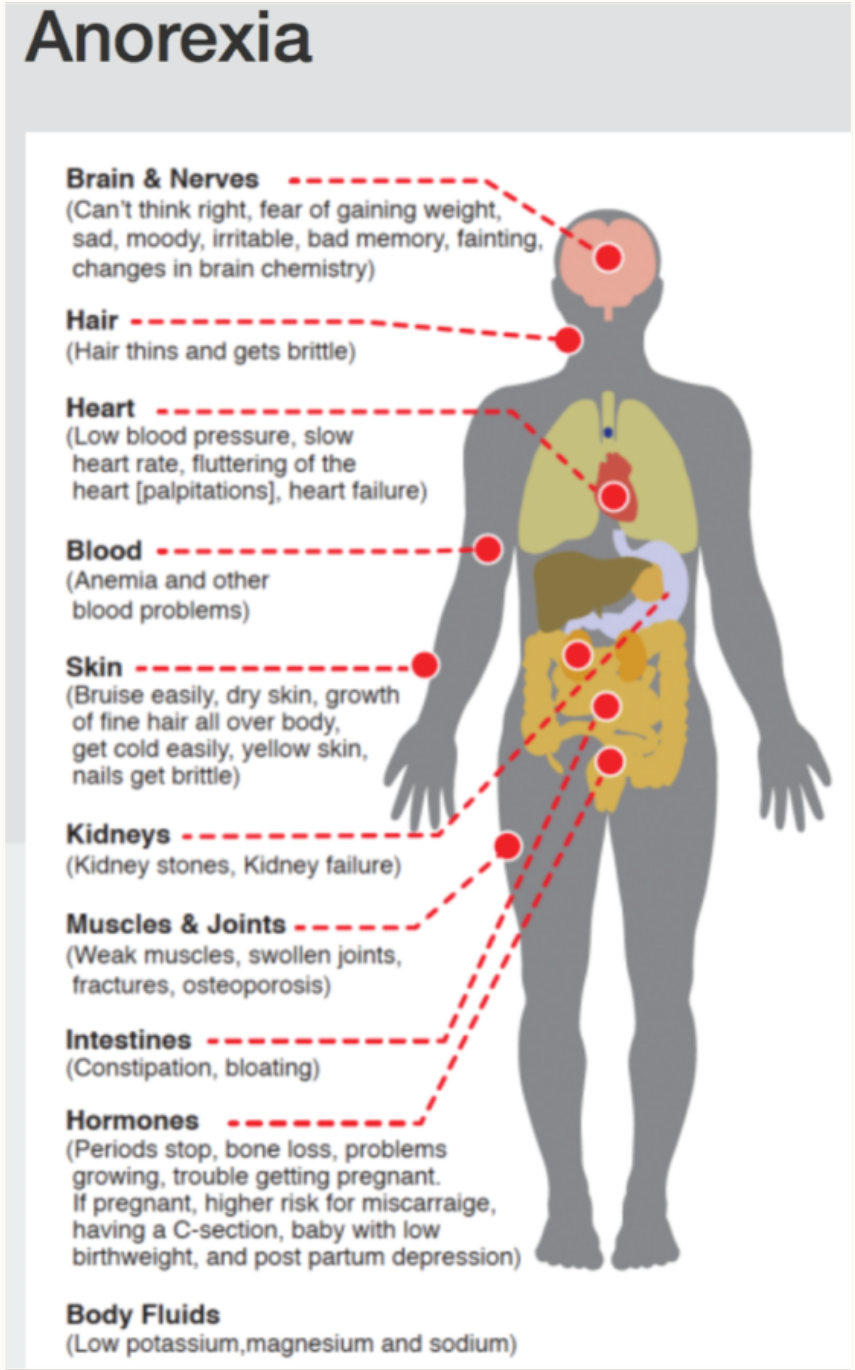
Our patient

- Wt: 114lbs
- BMI%: 9%
- Previous BMI%: 50%
- EBW: 130lbs

- Vitals: Lying 5mins, Standing 3mins
  - HR: 51 to 67
    - Previous HR consistently 60s-70s
  - BP: 111/62 to 109/59

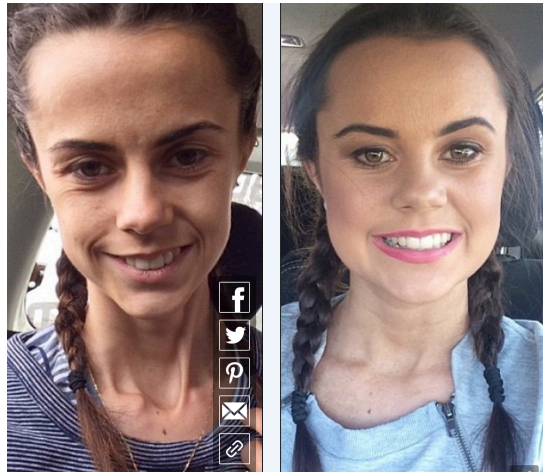
- No distress but flat affect
- Difficult to engage
- Looks thin but not cachectic
- Bradycardia
- Cool extremities
- All else normal

Anorexia



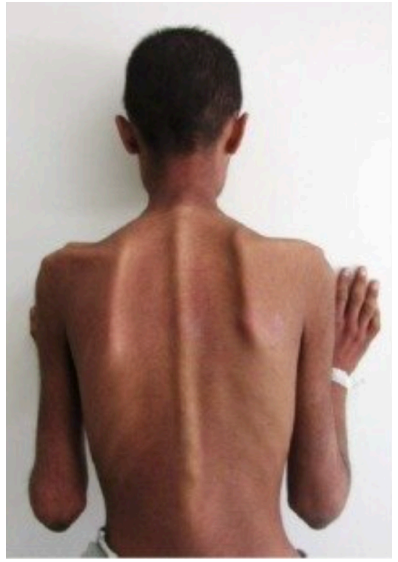
Physical Exam . Key findings

Lanugo



Temporal wasting

Engagement/Expression

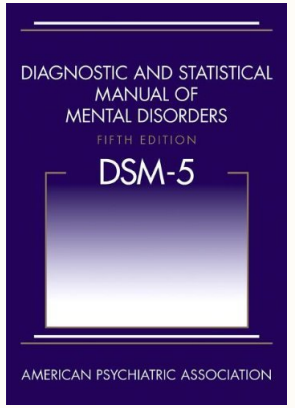


Bony prominences

Diagnosis

DSM-5 (2013) Feeding and Eating Disorders

- **PICA**
- **Rumination Disorder**
- **Avoidant/Restrictive Food Intake Disorder (ARFID)**
- **Anorexia Nervosa**
  - Restricting Type
  - Binge-eating/Purging Type
- **Bulimia Nervosa**
- **Binge-Eating Disorder**
- **Other Specified Feeding or Eating Disorder**
  - Atypical Anorexia Nervosa
  - Bulimia Nervosa (of low frequency and/or limited duration)
  - Binge-eating Disorder (of low frequency and/or limited duration)
  - Purging disorder

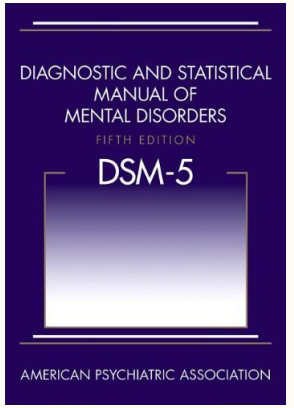


Changes from DSM-IV-TR (2004) to DSM-5 (2013)

- PICA, Rumination and ARFID all added to new Feeding and Eating Disorders section (removed from early childhood-specific category)
- Added Binge Eating Disorder
- Anorexia Nervosa:
  - Dropped requirement of amenorrhea
  - **Focus on behaviors** (e.g., restriction, exercise), and removed word "refusal" to maintain weight
- Bulimia Nervosa:
  - Lessened frequency of binging and compensatory behaviors from twice/week to once/week
- ED-NOS now Other Specified Feeding and Eating Disorder (OSFED), with 5 subcategories
  - Atypical Anorexia Nervosa, Bulimia Nervosa with less frequent behaviors, Binge Eating Disorder with less frequent behaviors, Purging Disorder, and Night Eating Syndrome

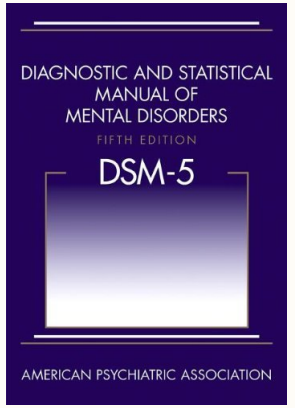
DSM-5 (2013) Feeding and Eating Disorders

- **Anorexia Nervosa**
  - Restricting Type
  - Binge-eating/Purging Type
- **Other Specified Feeding or Eating Disorder**
  - Atypical Anorexia Nervosa



DSM-5 (2013) Feeding and Eating Disorders

- **Anorexia Nervosa:**
  - A. Restriction of energy intake relative to requirements leading to lower than expected weight
  - B. Intense fear of gaining weight or becoming fat, OR persistent behavior that interferes with weight gain despite being at a low weight
  - C. Body dysmorphia, undue influence of body weight or shape on self-evaluation, OR persistent low insight into seriousness of the low body weight
    - ***Restricting Type*** *= restriction without binge eating or purging; wt loss primarily happening through diet and excessive exercise*
    - ***Binge-eating/Purging Type*** *= wt loss due to binging AND/OR purging*
- **Other Specified Feeding or Eating Disorder**
  - **Atypical Anorexia Nervosa =** above criteria for AN otherwise met except adolescent's weight is at or above normal range based on expectations



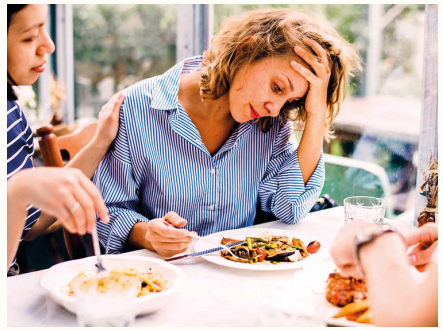
Back to the case study: What would you call this?

- 16yo female with history of anxiety, now improved since remote learning and meeting regularly with therapist via telehealth
- High level gymnast - now running and has adopted vegetarian diet but wants to become vegan
- Presenting to your office with amenorrhea, 15lb weight loss to 9th %ile BMI whereas she had always trended between the 30-60th %iles on growth curves
- Family did not want to come to in-person primary care visits due to COVID-19 but have now become concerned after noticing weight loss
- Labs otherwise normal but appears thin and bradycardic on exam
- Assessment does not identify any other cause for food avoidance or GI problems
- Adolescent states that she feels the strongest and healthiest she's ever felt

How would you discuss your concerns?

- **To share or not to share DSM-5 dx?**
- **Concepts of "energy imbalance" or disordered eating"**
- **Core points to convey, regardless of what we call it:**
  - "Grave but sincere" approach – validate concerns but clearly express worry
  - We often hear, *"I didn't take it seriously enough at first"*
  - Empower adolescent and parents

- **Convey hope for recovery with early intervention and multidisciplinary care**
- **Help family understand the mantra of "food is medicine"**
- **Help family learn to be supportive** (eating together, distraction, validation)



Education

National Eating Disorder Association (NEDA) Parent Toolkit

COMMON HEALTH CONSEQUENCES OF EATING DISORDERS

Why Early Intervention for Eating Disorders is Essential

NEDA TOOLKIT for Parents

Level of Care Guidelines for Patients

NEDA TOOLKIT for Parents

Eating Disorder Myths

NEDA TOOLKIT for Parents

National Eating Disorder

How to Support a Loved One with an Eating Disorder

WARNING SIGNS & SYMPTOMS OF COMPULSIVE EXERCISE

Nutrition First Steps

Nutrition Tips for a Balanced Diet

This starter guide is meant to aid your child towards a balanced diet with nutrient dense options. We recommend following up with a Registered Dietitian to help you create a customized meal plan based on their individual needs.

Meal Timing and Structure

- Begin eating within 1 hour of waking and then every 3-4 hours
- Focus on 3 meals plus 2-3 snacks
  - Example: 8am **Breakfast**, 10am **Snack**, 12-1pm **Lunch**, 3pm **Snack**, 6-7pm **Dinner**, 8-9pm **Snack**
- Decrease stress at meals through games, reading, TV shows or movies
- Have a parent plate all meals and snacks

Nutrient Balance

- Every meal needs to have sources of starches (carbohydrates), protein, and fat
- Snacks should be approximately 250-500 calories each and include a variety of foods
- Aim for a rotation of different meals and snacks throughout the week
- Avoid filling up on high volume, low calorie foods such as: most vegetables and fruits, low calorie or "light" foods (breads, wraps, yogurts, cheeses, bars, etc.)

Nutrient Dense Foods to Choose From

- Avocadoes
- Bananas
- Breakfast cereals
- Butter & Margarine
- Corn
- Cottage Cheese, Full Fat
- Cream Cheese
- Cheddar Cheese OR Vegan Cheeses (Cashew or Coconut Oil based)
- Dried Fruits
- Eggs, Whole
- Granola (with nuts and dried fruit)
- Granola Bars
- Hummus & Bean Spreads
- Juice (100% juice, not diluted)
- Meal Replacement Shakes
- Milk Shakes & Smoothies
- Nut Butters (Peanut, Almond, etc.)
- Nuts & Seeds
- Oils (Olive, Avocado, Coconut)
- Pasta
- Potatoes & Sweet Potatoes
- Protein Bars
- Rice
- Trail Mix
- Whole Milk Yogurt

Restoration Meal Plan

Increasing caloric intake
Improved variety comes later

Must allow for continued growth and development
Goals will shift as young person matures

Outpatient: Gain 0.5-1lb per week
- Family Based Treatment: 2-4lbs per week
- Inpatient Eating Disorder Facility: 2-3lbs per week

Shift to Maintenance Meal Plan once at EBW

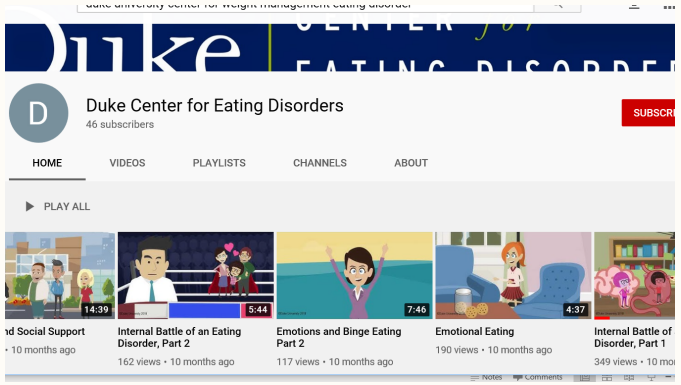
Exercise Management

- Assess energy out compared to energy in
- Is the exercise compulsive?
- Can they cut back?
- Can you consider a trial of maintaining current exercise while working on improved energy in?
- Consider pausing exercise other than gentle short walks and relaxation yoga until 90% of EBW then slowly add exercise back in.

Psychological Supports: First Steps

- Reduce family conflict if possible
- Promote healthy adolescent development and coping
  - Hobbies, activities, fostering connections unrelated to exercise and eating

- Maintain consistency and clear contingencies
  - If you give the ED an inch, it will take a mile…



- "Externalize" the eating disorder
  - Reduces blame and conflict
  - Restores some sense of control
  - Unifies patient with family and providers against the ED

Treatment Goals

DEFINITION OF RECOVERY

- Physical
- Nutritional
- Behavioral
- Psychological

Recovery Goals: Most Agree

- Appropriate weight in alignment with normal maturation and development
- Physical growth and pubertal patterns should be restored
- Menses should return, linear growth improve, organ damage reverse
- Nutritional/Behavioral recovery:
  - Normalizing eating
  - Return of flexibility in eating
  - Eat varied balanced diet

Recovery Goals: Most Agree

- Psychological recovery:
  - Improved self-esteem
  - Age-appropriate interpersonal, psychosocial and occupational function
- Weight and body shape should no longer have an undue influence on self-evaluation
- ‘Externalize’ the eating disorder in the same way we do cancer and other illnesses wherein the concept of a team approach is crucial
- Re-assessment of level of care periodically

Levels of Care

Levels of Care: All Multidisciplinary

Outpatient	• PCP and collaborative team	**AVAILABLE IN VERMONT**
Intensive Outpatient (IOP)	• 20 hours of treatment per week	
Partial Hospitalization Program (PHP)	• 8 hours of treatment per day, 5 days per week	
Residential	• 24 hour care, 7 days per week	
Inpatient AN Treatment	• Intensive AN specific inpatient care	
Inpatient Medical Stabilization	• Medical instability, crisis care	**AVAILABLE IN VERMONT: UVMMC and DHMC**

How to decide level of care: APA Level of Care Guidelines for Patients with Eating Disorders . 10 Categories

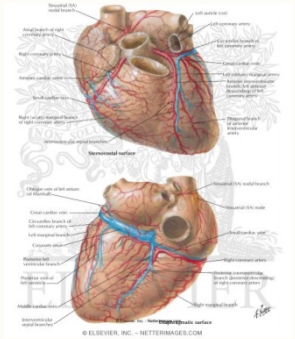
	OP	IOP	PHP	Residential	Inpatient
Medical Status	Medically stable to the extent that more extensive medical monitoring, as defined in levels 4 and 5, is not required			Not requiring intravenous fluids, NG tube, or multiple daily laboratory tests	Parameters for HR, BP, orthostatic vitals, low potassium, magnesium, phosphate
Weight as percentage of healthy body weight*	Generally >85%	Generally >80%	Generally >80%	Generally <85%	Generally <85%; acute weight decline with food refusal even if not <85% of healthy body weight
Motivation to recover	Fair-to-good	Fair	Partial motivation; cooperative; patient preoccupied with intrusive, repetitive thoughts >3 hours/day	Poor-to-fair motivation; patient preoccupied with intrusive repetitive thoughts 4–6 hours a day; patient cooperative with highly structured treatment	Very poor to poor; preoccupied with intrusive repetitive thoughts; patient uncooperative with treatment or cooperative only in highly structured environment
Structure needed for eating/gaining weight	Self-sufficient	Self-sufficient	Needs some structure to gain weight	Needs supervision at all meals or will restrict eating	Needs supervision during and after all meals or NG/ special feeding modality
Ability to control compulsive exercising	Can manage compulsive exercising	Some degree of external structure beyond self-control required to prevent patient from compulsive exercising; rarely a sole indication for increasing the level of care			

Full chart in NEDA Parent Toolkit

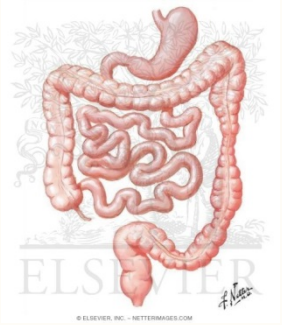
Higher Levels of Care

Next Medical Steps: Labs, Studies & Medications

Cardiac and Gastrointestinal

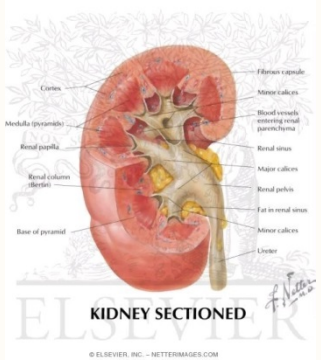


- Orthostatic/Postural blood pressure and pulse measurement
- Consider ECG: Bradycardia, arrythmia, prolonged QTc

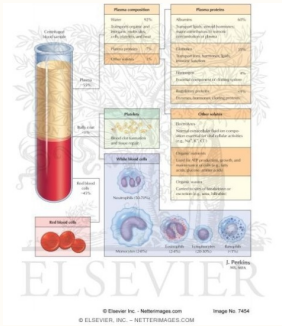


- Labs: Celiac Screen, LFT's, Lipids
  - Nutrition: Vit D, Zinc
- Amylase if concern for vomiting
- **FOOD IS THE MEDICINE**
- Consider medications:
  - Osmotic laxatives like Miralax if constipation or gastroparesis
  - Consider Reglan 30mins before meals if severe gastroparesis
  - PPI if GERD

Renal, Electrolytes and Hematology

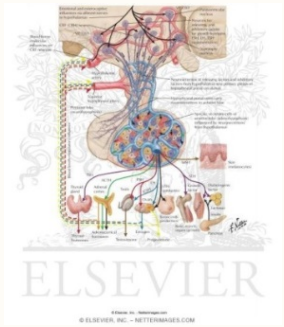


- Labs: BMP, Mag, Phos, Calcium; Urinalysis
- Referral: Consider renal consult if evidence of AKI/CKI

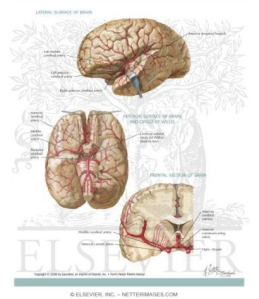


- Labs: CBC, Ferritin, B12
- If evidence of anemia on presentation:
  - Iron supplementation if indicated, beware of constipation

Endocrine and Neurologic

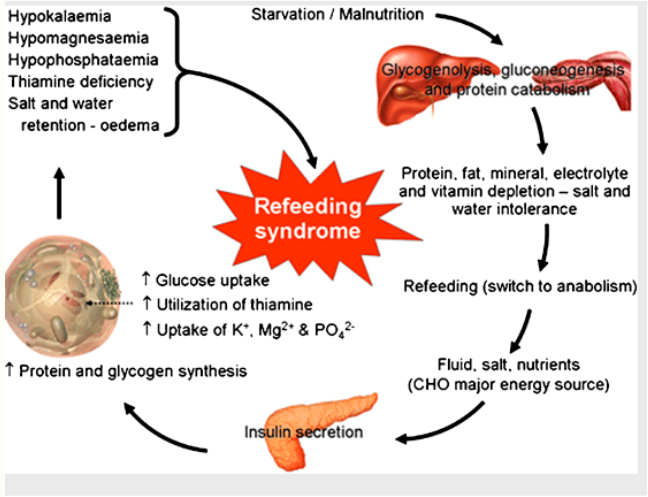


- Labs: If amenorrhea – LH, FSH, Estradiol; Prolactin
  - Testosterone in males.
  - TSH, T3 may reveal sick euthyroid.
- Studies: Outpatient baseline DEXA scan if amenorrhea for 6mos
  DEXA in boys if malnourished for 6 months
  Combined OCPs not indicated; won't help bone density



- Remember – patients have physiologic neurologic changes that are affecting their behavior!
- These changes (“abnormal pathways”) may have become hardwired and will take time to “re-wire”, cannot expect change during medical stabilization.

When to Worry About Refeeding Syndrome



MOST ASSOCIATED WITH:

- Severe Malnourishment
  - Little to no intake for 5-10d
  - <70% of EBW
- Rapid Weight Loss
  - 10-15% in last 3-6mos
- Baseline abnormal electrolytes

- Best to admit to inpatient for close monitoring
- Start with higher caloric amounts
  - *1,500-2,500/day*
  - *Increase by 200-400 kcal/day*
- Monitor labs daily for 5-7d
- Treat expected abnormalities PRN or prophylactically

Referrals

Role of Medical Provider

- Collaborate with multidisciplinary team
- *Provide medical home care coordinator if possible*
- Provide ongoing comprehensive medical assessment
- Explain seriousness of medical complications
- Explain prognosis
- Explain importance of early aggressive treatment
- Emphasize removal of blame from all

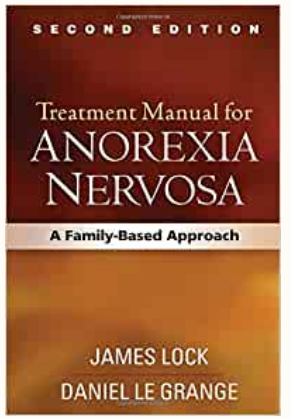
Katzman et al 2013

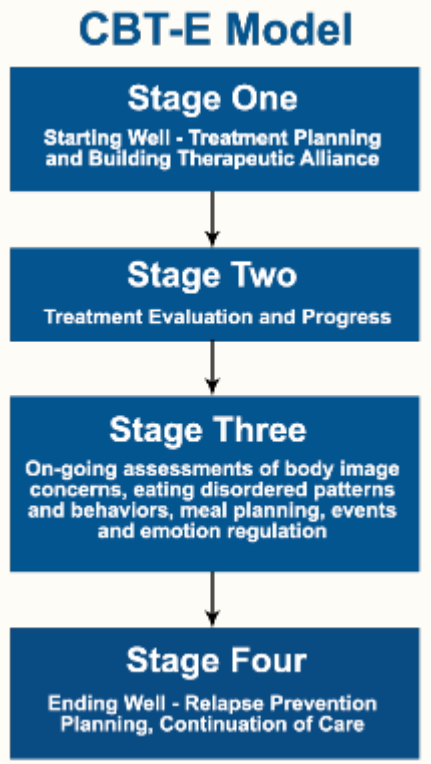
REFERRAL AND COLLABORATION

- Nutritionist with adolescent eating disorder experience
- Mental Health Providers
  - Individual Therapists
  - Family Therapists
  - Family Based Treatment/Maudsley Therapists
  - Group Therapy
- Psychiatrist as needed
- School Nurse and School Staff
- Complementary Therapies
  - Yoga
  - Body work
  - Reiki

Mental Health Providers

- **Individual therapy**
  - Family-Based Treatment (FBT; a.k.a. Maudsley)
  - Enhanced Cognitive Behavioral Therapy (CBT-E)
  - Other modalities may be effective and more available in VT but have not been as widely tested in RCTs specifically for adolescent eating disorders:
    - Acceptance and Commitment Therapy, Cognitive Behavioral Therapy, Dialectical Behavior Therapy, Psychodynamic Therapy, Interpersonal Psychotherapy





Atwood & Friedman, 2020; Lock, La Via, & Walter, 2015; Watson & Bulik, 2013

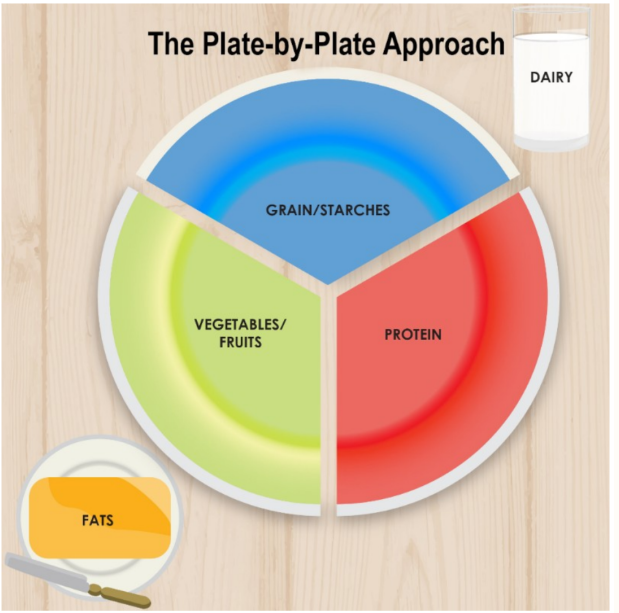
Psychopharm

- No evidence for first line Rx in AN
  - May have role if resistant, or if premorbid psychiatric conditions
- AN and Anti-Depressants
  - No published RCTs in adolescents
  - Adult studies show no help with weight gain using SSRI and Tricyclics
  - May help with depression, anxiety and OCD tendencies
- AN and Anti-Psychotics
  - No large RCTs
  - Limited positive evidence in adults for weight gain with Olanzapine
  - May help reduce anxiety and rigidity and help with early weight gain

Review, World Federation of Societies of Biological Psychiatry, 1977-2010

Registered Dietitian

- Personalized nutrition:
  - Exchange or Plate method
  - Customized meal plans:
    - *Energy needs: MSJ + activity factor*
  - Food challenges/Fear foods
  - Recovery Record
  - Intuitive eating and mindfulness principles
- Parental/Adult involvement and support
- Supportive supplements:
    - *Examples: Iron, Calcium, Magnesium*



Exercise Management

- Depends on severity
- Needs to work closely with the Registered Dietitian to adjust meal plan
  - Typically, a gradual increase in exercise pending recovery
  - Check-in with team around management

- Goals of exercise management
  - Mindful movement -> decreased focus on “calorie-burning”
  - Honor what the body needs, ie: rest
  - Learn how to fuel for exercise
  - Utilize other coping strategies for stress and anxiety

FOLLOW- UP
&
CARE COORDINATION

Visit frequency

- PCP: Q1-2 weeks initially
  - Care coordination as team gets in place
  - Continuing to learn about patient/family dynamics
  - Medical monitoring especially if risk of instability
  - Monitoring for 0.5 – 1lb weight gain per week
    - *RD may do this some weeks*
- RD: Weekly to begin
- MHP: Weekly to begin

Care Team Communication

- Care Conferences
  - Initial at 4 weeks, replace office f/u visit with in person/virtual team meeting
    - *Plan in advance so people can attend*
    - *Include patient & family*
    - *Re-evaluate level of care*
- Secure communication
  - Encrypted emails
  - EMR

What if things are getting worse?

_____

If Higher Level of Care (HLOC) is indicated:

- Begin process sooner than later as waits are long
  - *If it crosses your mind then discuss and refer*
- Parents/Guardians should make initial calls themselves to:
  - Learn about programs
  - Arrange intakes
  - Get on wait lists
- Wait lists are currently 2 – 8 weeks long
- Get on lists as soon as possible

General Inpatient Medical Stabilization

May be needed if patient is:

- Medically unstable
- Needs improved vitals, labs to enter voluntary residential treatment

- Call hospitalists to discuss possible admission:
  - UVMMC: Voluntary Nutritional Deficiency Pathway (NDP) for medical stabilization
  - DHMC: Similar pathway
  - Direct admission vs. ER evaluation first

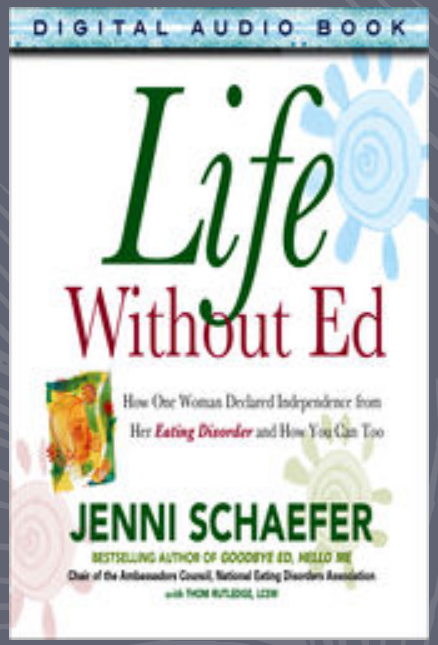
Psychological Stabilization

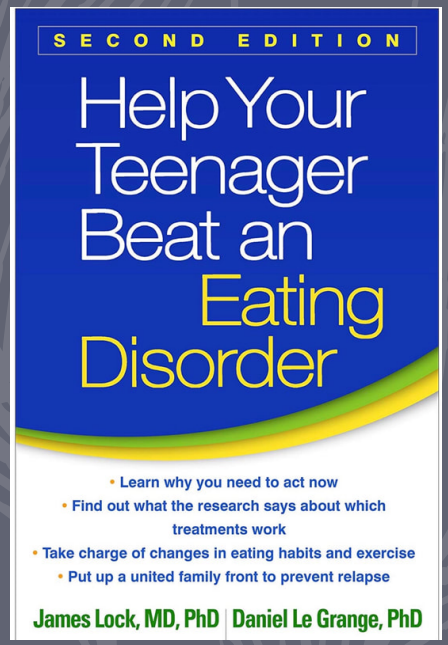
- Ideally partner with family to manage stability at home
  - Identify what caregivers need – case manager? FMLA? Validation?
  - When to take harm reduction approach while awaiting higher LOC
  - Consult with DCF if parents seem unable to provide the care needed, despite best intentions
- Partnering with community-based mental health providers to assess risk and formulate safety plans
- Utilize crisis support
- UVMMC ED for transfer to inpt psychiatric treatment
  - Keep in mind limitations of what the hospital and external tx facilities can provide for a medically stable, non-suicidal youth…

RESOURCES

Providers

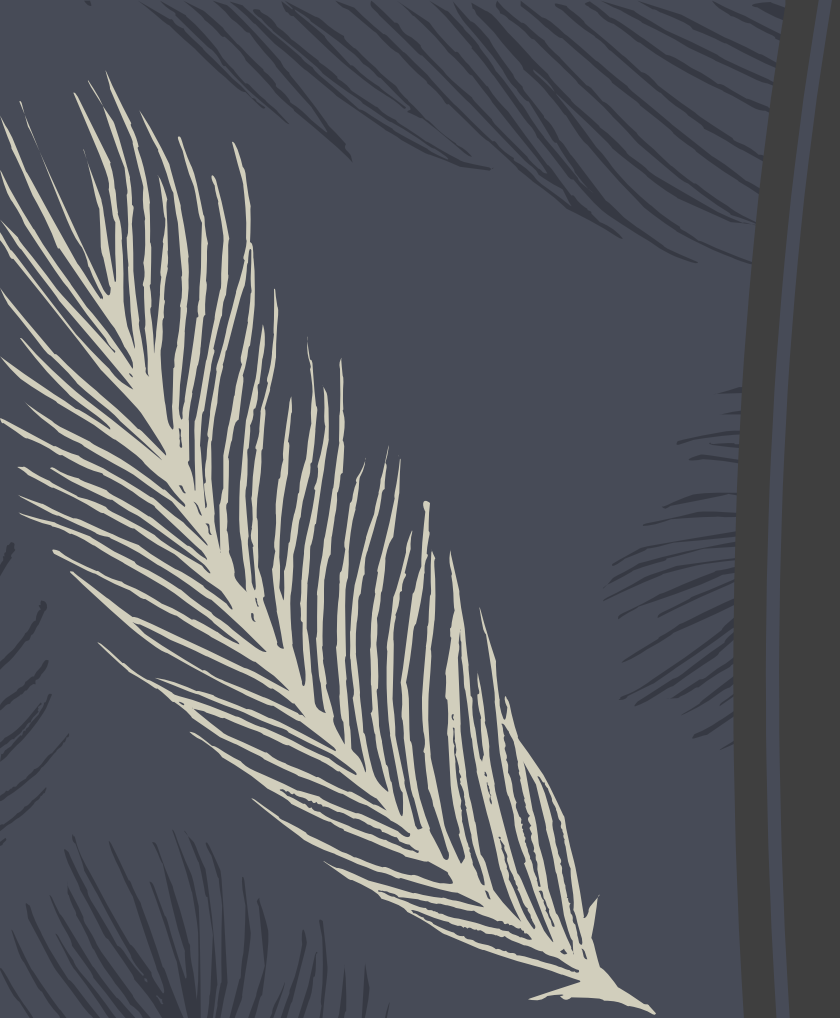
- VCHIP Youth Health Initiative Provider Resources . Eating Disorders
- Society for Adolescent Health and Medicine Eating Disorder Clinical Care Resources
- Academy for Eating Disorders
- International Association for Eating Disorder Professionals





Patients & Families

NEDA: National Eating Disorders Association



Thank You

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Supplemental Slides

Males and Anorexia Nervosa

Overall, males w/ disordered eating, and AN specifically, can be said to have similar characteristics to females w/ disordered eating compared to healthy control w/ respect to overall behaviors (i.e. body dissatisfaction, psychiatric comorbidities, perfectionism, etc.)

Compared to females w/ AN, males males w/ AN…

- Have earlier age of onset and present to care younger
- Are more likely to be non-white
- Are less likely to have co-morbid mood disorder
- Have less severe pathology w/respect to presenting weight/BMI, restrictive behaviors, concern for body shape/weight/food aversion
- Are more likely to have other type of disordered eating pathology or display other type

- No differences in duration of illness, anxiety disorders, behavioral disorders, frequency of hospitalizations
- No differences in bone density deficits

Keel et al 1997
Kinasz et al 2016
Nagata et al 2017

BIPOC and Anorexia Nervosa

- Eating disorders, including anorexia nervosa are more common among white women than black women
- BIPOC are less likely to perceive themselves as overweight and engage in unhealthy weight management practices overall
- Asian patients who endorsed laxative use were less likely to be referred for further evaluation than black, latinx, and white peers who endorsed same
- Binge-eating behaviors predicted distress around disordered eating more in black, latinx, and white patients, while purging behaviors predicted distress in Asian patients

- No differences in frequency of binge-eating, restrictive eating, purging, and amenorrhea between white and black adolescent females

Franko et al 2007
Neff et al 1997
Striegel-Moore et al 2003

Gender Diverse Adolescents and Anorexia Nervosa

- Highest rates of self-reported disordered eating compared to cisgender men and women (Odds Ratio 4.62; prevalence of 18% compared to 1.8% and 0.2% respectively)
- Highest rates of self-reported of unsafe weight management behaviors (i.e. fasting >24hrs, laxatives, steroids, diet pills, purging)
- ~3/4s of all transgender patients w/ eating disorders report NSSH, SI, and/or attempted suicide

- “One of the least invasive measures that transgender individuals might first attempt is the alteration of their body shape and body weight through dieting and exercise, as these can be done with little expense and without the need for medical supervision. Ultimately, these behaviors may help to affirm one's gender identify whilst also satisfying other peoples' normative expectations about the embodiment of gender (i.e., what male and female bodies are “supposed” to look like).”

Diemer et al 2015
Duffy et al 2019
Griffiths and Yaeger 2019
Guss et al 2017

Legal and Ethical Considerations in VT

- All patients have the right to bodily integrity, even those who do not have decision making capacity (i.e. an adolescent who cannot consent to treatment but can assent)
- Vermont is very protective about patients' rights to refuse unwanted treatment There are few exceptions to this, most notably for a medical emergency and/or when an intervention is short and progressive towards a reasonable and timely goal
- In the setting of medical stabilization for disordered eating, interventions to correct critical electrolyte abnormalities would be considered permissible to perform against a patient's will as they are short and towards a reasonable goal that can be achieved in a timely manner
- Forcing nutrition via NGT is not permissible in VT as it is not working towards a goal that is achievable in a timely manner and, therefore, it is not a short intervention