

# A Resident's Guide to Caring for Patients on the UMass Pediatrics Disordered Eating Protocol

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# Disordered Eating Protocol for Pediatrics (General Overview)

Updated 8/8/19

1. The Disordered Eating Protocol (DEP) is used for the nutritional rehabilitation of patients with the diagnosis or suspected diagnosis of disordered eating. Please use the order set in the electronic health record (EHR) to place all orders for this protocol.
  - a. Initiation of the protocol should be discussed as a team with nutrition and psychiatry and nursing.
2. Exceptions or changes to the DEP are allowed but must be first discussed with all team members (e.g. medicine, nursing, nutrition, psychiatry) for approval.
  - a. All changes to the protocol will be documented in the *comments* section of the protocol order set in the EHR.
3. Patients will be started on 1400 calories on the first day of the DEP. If the patient is admitted after 2 pm, a standard dinner tray will be sent. If the patient was not able to fill out a breakfast menu, a standard breakfast meal tray will be sent. Snacks are not included in the meal plan.
4. Nutrition and psychiatry consults should be placed on admit. If the patient is admitted on a weekend, please page the on-call dietitian.
5. The dietitian will meet with the patient on the morning after admission to instruct on the meal guidelines and complete menus. Copies of the completed menus will be kept by the dietitian.
  - a. After menu completion, the dietitian will check menus to ensure that they are balanced in nutrients, food groups and match the calories ordered.
6. Cultural, ethnic and religious dietary restrictions will be taken into consideration.
7. Meals will be advanced by 200 calories per day until 2000 calories, thereafter, calories will be increased based on weight gain.
8. Once on 2000 calories, the patient should experience a daily weight gain of 0.2 kg/day. If the patient is losing weight or not showing weight gain, meals may be increased by another 200 calories per day until weight gain is achieved. **Exceptions: patients who are at their ideal weight for height will not be expected to gain weight and will remain on the 2000 calorie meal plan unless losing weight.**
9. The diet order will list the number of oral nutritional supplements (ONS) that need to be consumed by the patient to make up 100% of the meal.
10. Ideal body weight (IBW) is determined as follows and noted in the initial nutrition note in the EHR:

<20 years of age – weight at 50<sup>th</sup> %ile BMI (equation: BMI at 50<sup>th</sup> %ile x ht in m<sup>2</sup>)

>20 years of age – use a BMI of 21 kg/m<sup>2</sup> (equation 21 x ht in m<sup>2</sup>)

Note: some eating disorder programs may use the Hamwi method to calculate IBW (females: 100 lb. for first 5 ft, 5 lb. for every inch over 5ft; males: 106 lb. for the first 5 ft, 5 lb. for every inch over 5 ft).

11. All patients on this protocol will have observation (1:1) for meals and the 1-hour rest period after meals. Patients on suicide precautions or with concerns for self-harm will have constant observation by a 1:1.
12. Patients on the DEP protocol will not be placed in the same room with another patient with disordered eating.
  - a. Weight should be checked in the morning, preferably at the same time, on the same scale, prior to showering or eating. The patient should void prior to weighing, wear a hospital gown and underwear. The patient should be weighed backwards without a view of their weight. Under no circumstances is the weight to be disclosed to the patient or the parent, if present (even the trend should not be discussed with the patient). The medical/psychiatry team will determine if the patient will be allowed to view their weight value.
  - b. Daily vital signs will be obtained. These include heart rate, orthostatic blood pressure as per nursing protocol and urine specific gravity.
13. There should be strict monitoring of intake and output. Patients should be monitored for the development of constipation, particularly as the meal plan is advanced.
14. To monitor for refeeding syndrome, a daily BMP, Magnesium, and Phosphorus will be checked for the first 5 days of admittance, unless it is determined that the patient is not at risk for refeeding syndrome.
15. On admission, patients will start on phosphate supplementation and a daily multivitamin.

### Physical Activity

1. Physical activity will not be allowed unless it is approved by the medical team. Any approved physical activity must be documented by the team. Physical activity that is restricted includes excessive standing, walking around unit, calisthenics or other exercise behavior in the room.
2. The room temperature should be between 68-72 degrees Fahrenheit. Patients should wear no more than two layers of clothing at a time.

### Mealtime Protocol

1. Meal trays will be delivered to the nursing desk. Nursing will check the tray against the menu ordered to ensure all food was delivered.
2. Meals must be eaten within a ½ hour of meal delivery and a rest period for 1 hour after meal (no bathroom use within that 1-hour rest period unless monitored by the nurse).
3. Meals and the rest period after meals will be monitored by a 1:1. Patients on suicide precautions or with concerns for self-harm will have constant observation by a 1:1.
4. All meals and snacks must be eaten in chair at bedside without a blanket. Garbage cans will be removed from the room.
  - a. No family, visitors or non-psychiatric providers, will be permitted in the room during the meal period, except for a 1:1 and nursing.
  - b. No outside food or beverages are allowed.

5. If the meal is refused, the patient must drink an ONS equal to the caloric amount of the entire meal. The amount of supplement to drink will be noted on the diet order. In the case of food allergies, food intolerances or cultural restrictions, substitutions can be made with an appropriate supplement.
  - a. If the patient consumes less than  $\frac{1}{2}$  the meal, the full supplement allotment should be given.
  - b. If the patient consumes, more than  $\frac{1}{2}$  the meal,  $\frac{1}{2}$  the supplement allotment should be given.
  - c. Excessive manipulation of food is not permitted. If edible parts of food (e.g. Entire crust of bread, a few peas, tablespoons of yogurt) are left on tray after the allotted meal time, patient will need to drink  $\frac{1}{2}$  the supplement allotment for the meal.
  - d. Note: half the meal implies half the calories of the meal.

**Exception - patients with the diagnosis of bulimia nervosa or binge eating should not be expected to consume 100% of the food on the tray. Consumption of 75% of the food on the tray is sufficient with this patient population.**

6. If the patient refuses to drink the supplement at the meal within  $\frac{1}{2}$  an hour, a nasogastric feeding tube (NGT) will be placed and the supplement will be administered through the NGT. The provider will determine use of restraints for NGT placement or consult psychiatry for recommendations, as needed.
7. The NGT will not be removed until the patient has shown consistent food intake for three meals or otherwise determined by the team.
8. For hydration, the patient will be required to drink 8 oz of a nutritional fluid at every meal and 8 -16 oz of water or an allowed beverage between meals.
  - a. If the patient is a vegetarian and does not eat dairy products, soy milk will be substituted for cow's milk.
  - b. The maximum amount of fluid allowed per day will be indicated on the diet order.
  - c. No more than 8 oz of a caffeinated beverage is allowed per day. The caffeinated beverage should be consumed before noon.
  - d. Allowed beverages between meals include water, caffeine-free tea and seltzer water. The patient may be allowed to drink juice with medications for palatability.

# Disordered Eating Protocol: For Patients

Updated 5/1/19

1. Our Disordered Eating Protocol is in place to help you get good nutrition while hospitalized.
2. Patients on the protocol are asked to fill out daily menus and choose from the following food groups:  
  
**Grain Group** – Bread, English muffin or bagel, tortilla, crackers, cooked rice or pasta, cereal, oatmeal, 1 pancake  
  
**Fruit** – Fresh fruit canned or diced fruit, dried fruit and fruit juice  
  
**Vegetable** – All cooked or raw vegetables  
  
**Protein/meat** - Egg, nuts or seeds, meat, poultry, ham, pork, fish, beans, tofu, hummus, peanut butter  
  
**Dairy** - Milk, soy milk, yogurt, all cheese  
  
**Fat** - Butter, margarine, oil or dressing mayonnaise, cream cheese, bacon
3. The dietitian will meet you to instruct you on how to complete your menus.
4. We will take into consideration any cultural, ethnic and/or religious dietary restrictions.
5. Meal plans will be advanced daily until we get to an amount of food that is just right for you.

## Mealtime Protocol

1. Meal trays will be delivered to the nursing desk. Nursing will check the tray against the menu ordered to ensure all food was delivered.
2. Meals must be eaten within a ½ hour of meal delivery and a rest period for 1 hour after meal (no bathroom use within that 1-hour rest period unless monitored by the nurse).
3. Meals will be monitored by a 1:1.
4. All meals must be eaten in chair at bedside without a blanket. Garbage cans will be removed from the room.
5. No visitors/caregivers will be permitted in the room during the meal period, except for a one:one, nursing or the psychiatrist/psychologist.
6. No outside food or beverages are allowed.
7. If you refuse the meal, we will ask you to drink an oral nutritional supplement to make up the entire meal.

Excessive manipulation of food is not permitted. If edible parts of food (e.g. Entire crust of bread, a few peas, tablespoons of yogurt) are left on tray after the allotted meal time, patient will need to drink ½ the supplemental allotment for the meal.

8. If you refuse to drink the supplement at the meal within ½ an hour, then a nasogastric feeding tube (NGT) will be placed and the supplement will be administered through the NGT.
9. The NGT will not be removed until you have shown consistent food intake for three meals or otherwise as determined by the team.
10. For hydration, we will ask you to drink 8 oz of a nutritional fluid (milk or juice) at every meal and 8 -16 oz of water between meals. If you are vegetarian or do not consume dairy products, soy milk can be substituted for cow's milk.

### Physical activity

1. Physical activity will not be allowed unless it is approved by the medical team.
2. For your comfort, the room temperature in the room will be kept around 69-72 degrees Fahrenheit and you will be asked to wear no more than two layers of clothing.

# Nursing Daily Checklist

## Vitals (before breakfast)

- ✓ Daily weight – morning, before eating, after voiding, wearing hospital gown and underwear, back to scale (unless otherwise instructed by psychiatry)
- ✓ Measure heart rate as per nursing protocol
- ✓ Orthostatic blood pressure as per nursing protocol
- ✓ Check urine specific gravity with every morning void
- ✓ Monitor for constipation

## Procedures

- ✓ Procure a 1:1 for observation of meals and 1-hour rest period after meals. A constant 1:1 may be ordered if concern for self-harm
- ✓ No garbage cans in the room
- ✓ No use of bathroom for 1 hour after meals

## Meals

- ✓ Review *diet order* (prescribed calories/day and supplements to replace meal are noted here)
- ✓ Tray is delivered to nursing desk
- ✓ Check tray against menu on tray to ensure all food/drink was sent
- ✓ Bring tray to patient, allow 30 minutes to eat. Patient should be sitting on chair, no blankets, no garbage can, with 1:1
- ✓ If patient eats <50% of meal, give full oral nutritional supplement (ONS) volume noted in the *diet order*.
- ✓ If patient eats >50% but less than 100% of meal, give half of the ONS volume noted in the *diet order*.
- ✓ Half the meal = half the calories (e.g. should half of all foods in meal versus eating only low-calorie foods)
- ✓ If NGT feeding, adjust rate to give ONS over 1 hour

## Fluid

- ✓ 8-12 oz nutritional fluid with meals (e.g. milk, juice)
- ✓ 8-16 oz fluid between meals (allowed beverages: water, caffeine-free tea, seltzer)
- ✓ If NGT, can give water in tube feeding

## **Supplements**

- ✓ Daily phosphorus supplement (see medication order for dose) in 4-6 oz fluid (can be in juice for palatability)
- ✓ Daily multivitamin (see medication order for dose)

## **Physical Activity**

- ✓ No physical activity allowed unless approved by team
- ✓ Room temperature between 68-72 degrees Fahrenheit.
- ✓ Patients should not wear more than two layers of clothing at a time



## Addendums/Exceptions

Exceptions to the protocol should first be approved by the team (medicine, nutrition, nursing, psychiatry) and will be documented in the *comments* section of the DEP protocol order set in the EHR.

### For Residents: How to Admit a Patient on the Disordered Eating Protocol

1. Open the “PED Pediatric Disordered Eating Admission” order set
2. Diet: click the “Disordered Eating Diet Panel” (*often patients require up to 2400kcal*)
  - a. 1400kcal + supplement instructions
  - b. 1600kcal + supplement instructions
  - c. 1800kcal + supplement instructions
  - d. 2000kcal + supplement instructions
3. Activity: “Bed rest per Disordered Eating Protocol” and “Must be up to chair for all meals” are auto-selected
4. Nursing: “vital signs every 4 hours” and “cardiac monitoring” and “orthostatic vital signs every morning” are auto-selected
5. Nursing Assessments: “Weigh patient daily same scale to be used each time” and “measure height and length once” and “measure intake and output” and “disordered eating observation” are auto-selected
  - a. Weigh patient at the same time in the morning before showering or eating breakfast
  - b. Patient is asked to void prior to weighing and urine specific gravity is measured
  - c. Patients to wear only underwear and hospital gown (no bra or other undergarments)
  - d. Patient is to stand with back to the scale readout with scale zeroed before patient gets off the scale
  - e. Do not tell the weight to the patient or parent
  - f. Do not discuss weight trend with patient
6. Consider the need for “constant observation” if concerned about suicide risk
7. Ancillary consults: “inpatient consult to child life for disordered eating protocol” and “inpatient consult to dietitian for disordered eating protocol” are auto-selected
8. Specialty consults: “inpatient consult to child and adolescent psychiatry for disordered eating protocol” are auto-selected
9. Labs
  - a. Daily labs: BMP, Mag, Phos for 5 days
  - b. On admission: CBC, BMP, Mag, Phos, Hepatic Function Panel, TSH reflex T4 (if not done just prior to admission)
  - c. EKG (if not done just prior to admission)
10. Medications/Supplements:
  - a. PHOS-NAK (potassium phosphate and potassium phosphate) 1 packet daily
  - b. 1 multivitamin tablet daily
  - c. Topical lidocaine for IV placement

## FAQs

### What about gum?

- Short answer: No
- Why not? Often used as a method for weight control, can suppress appetite with some synthetic sugars, can be oral eating distraction

### Can patients take pictures of their meal?

- Short answer: Yes
- Can be a potentially helpful visual learning tool to reinforce the food group balance and portions that the child's meal composition should look like
  - Exceptions: not ok to use the picture to communicate around meal time via text, for example not ok for the child to be reaching out to the parent by sending them texts of their meals and stating how difficult the meals are
  - If in doubt, ask the psych team

### Can patients use their phones during meals?

- Phone use during the meal is not allowed.
- If the patient would like to take pictures of their meal, it should be agreed upon by the team and done at the beginning of the meal then the phone put away.

### What if my patient gets constipated?

- All patients with restrictive eating develop slow transit constipation
- If the patient has not had a bowel movement in two days, we should start Colace at a minimum
- When a patient reports a history of laxative and dependency, should assess the amount and frequency with which it was taken and ideally start off with ½ the dose and taper it as improvement in nutrition and hydration status occur
- Remember, anti-histamines and anti-psychotics can make constipation worse

### Who decides if a patient ate more or less than half the meal?

- The nurse does

### Who introduces the disordered eating protocol to patients and families?

- The DEP Protocol should be presented to the patient by the medical team with either nutrition or psychiatry or both attending.

### What if a parent or patient refuses the NG tube?

- Patient under 18 refuses NGT: it really only matters what the parent/guardian wants, and if that person consents to feeding tube then we proceed with the plan; the team tries to get consent for the whole protocol from the beginning
- Patient and parent both refuse NGT: we do not proceed with tube and consider discharge, because the NGT is the treatment we offer; if the patient is medically compromised, it is likely that the patient then meets section 12 criteria
  - If section 12 criteria is met then we can consider emergency treatment without consent but should be very clear about the level of dangerousness and this decision should never be made unilaterally
  - This requires team consensus between hospitalists, psychiatry, and nutrition
  - If parents continue to refuse and patient meets section 12 criteria, discussion about filing a 51A for medical neglect should be considered
- “We wouldn’t prescribe one half the dose of insulin to a diabetic patient in DKA, why would we prescribe half the calories and fluid to an anorexia nervosa patient that simply can’t eat or consume the necessary prescribed calories and fluid to restore nutrition and brain function?”
  - This is a great analogy to use in support of the NG tube as a therapeutic modality and not a threat

### What if the patient is 18 years old or older and wants to leave?

- If patient is over 18 and refuses NGT and that patient is medically compromised and meets section 12 criteria, could consider NGT without consent as an emergent life saving measure
- Alternatively, if medically stable (even if still risky), patient can refuse treatment of any kind
- Next steps would be discussed with team as to discharge or implementing a modified plan without NGT

### What if I have questions or problems over the weekend?

- **Nutrition:** always on-call throughout the weekends for questions or concerns related to the DEP protocol
  - Patients on the Disordered Eating Protocol make all their menu selections on Friday for the whole weekend, but some patients may need further guidance from the nutrition team over the weekend.
  - Discussion about the potential need for someone from nutrition to come in over the weekend should be had on the Friday prior.
  - If the patient is admitted Friday evening/night, the on-call dietitian should be called to complete the consult over the weekend
- **Child psychiatry:** always on call and available on weekends though not in house
  - Covering fellows and attendings can always weigh in on the legal and ethical issues but may defer in person assessments to the primary team when appropriate (not because they do not want to see the patient, but because choice of language and relationships are incredibly important)
  - Patients can be good at splitting the team and can use one team member’s words against another, and then use the discrepancies as a way to invalidate the treatment itself and distract themselves from their nutritional needs
  - The best answer to the above is usually something along the lines of “I wasn’t aware that xxx was a problem. This is what I was told needed to happen over the weekend. I will make sure to alert the team to your concerns and have them answer your question but in the meantime, we have to follow the plan as it is now”

### What if my patient wants to change their meal preferences?

- Once the menu has been completed by the RD and patient, the menus will not be changed. Please remind the patient that once the menus are completed and finalized there are no last minute substitutions
  - Why? This prevents any last minute meal delivery delays and helps the patient begin the process of identifying and conquering disordered eating behaviors
- Can consider allowing the patient to have a copy of their meal selections so they can anticipate and prepare for the meal (some patients find it very helpful and others are not quite ready and might perseverate to much)
- Potential script: “I hear your concerns but this is the plan we have in place for the day. I will bring your concerns to the team and we will try to get an answer but we need to continue the plan as is for now.”
- Please do not say “I’ll call the dietitian to ask”

### What if a patient gets admitted late in the day?

- If the diagnosis is clear, and the patient and family is made aware of the hospitalization for refeeding, the medical team should present the DEP treatment plan for refeeding and medical stabilization
- If nutrition has been unable to complete a dinner or breakfast menu a standard DEP tray of 450 calories will be provided if the child is admitted before dinner
- If the child does not arrive to the floor until after dinner, it is best to wait until psychiatry and nutrition have consulted and the treatment is presented in a collaborative way
- If it is late on a Friday, and diagnosis is clear, would be best to initiate the protocol on Saturday with support from psychiatry and nutrition but with the medical team doing the psychoeducation about the DEP with adequate time and full team to follow up on next business day

### Are there specific words/phrases to use or not use with patients and their families?

- Help the parents understand the illness, separate the disease from the child and encourage a united approach to treatment.
- “I know it’s hard to view food as your medicine but it is the treatment right now”
- “I know you feel compelled to exercise but you have to conserve energy for organ function”
- In general, avoid the word “no” which can be triggering. Instead offer forced choices such as “we can’t let you walk around the unit because we need to protect your body’s ability to function. You can sit in a chair at the bedside or lie in bed if you prefer.”
- Validation is always good; acknowledge how difficult this is for them.
  - However, usually best to avoid saying things like “You are doing such a great job!” Because this can be seen as invalidating of their struggle and can be confusing because their mind is telling them to restrict (eating can be viewed as a failure or letting themselves down).
- We do not discuss weight or calories with patients. If they ask about these, we remind them that we don’t talk about numbers. We talk about feeling better, having more energy, being able to be discharged.

## Where do patients go after they leave 5E?

- A majority of our patients will transfer to Walden or Cambridge based on their age, geographic location, level of care required and insurance coverage
- If the patient is going directly to an inpatient or outpatient treatment program, a discharge meal plan is not needed. However, if the patient is going home first before entering a residential program or going home for outpatient only treatment then they should meet with a dietitian prior to discharge for meal plan teaching. Please let the dietitian know as early as possible the discharge plan so that education is scheduled promptly.
- **Walden Eating Disorder Center:** Tiered levels of care for 12-18 years and 18 plus in various locations throughout MA. These tiered levels of treatment and care include Partial Hospitalization Programs (PHP), Intensive Outpatient Programs (IOP) and traditional Outpatient Therapy for individuals of all ages and all genders in convenient locations in Massachusetts, Connecticut and Georgia. The Waltham site offers inpatient partial hospitalization at BCH 5th floor Waltham which provides the level of medical and behavioral stabilization that we at UMass provide. Typically, our patients will transfer from UMass to IOP if from there they relapse, and are within the Walden system, they will transfer to PHP at BCH. <https://www.waldenbehavioralcare.com/>
- **Cambridge Eating Disorder Center:** Tiered levels of care for Massachusetts and New Hampshire. The Massachusetts location offers residential, Intensive Outpatient (IOP) and traditional outpatient therapy. <https://www.eatingdisordercenter.org/>
- **Renfrew:** Located on both the West and East coast with a location in Boston, MA on Comm Ave. In Boston they do not offer Residential but offer Intensive Outpatient Programs and traditional Outpatient so depending on the severity of the ED and likelihood of relapse with escalation of medical and behavioral support, there would be a risk that the patient would need to transfer to another facility. <https://renfrewcenter.com/locations/all-locations/renfrew-boston-ma-eating-disorder-treatment-center>
- **Mclean Hospital/Klarman Eating Disorder Center:** Tiered level of care from ages 16-26 located in Belmont MA offers partial hospitalization (McLean Hospital) and residential treatment. <https://www.mcleanhospital.org/treatment/klarman>

DSM – 5 Feeding and Eating Disorders	
KEEP FOR REFERENCE	
(F98.3) Child Pica (F50.89) Adult	
307.53 (F98.21) Rumination Disorder	
307.59 (F50.89) Avoidant/Restrictive Food Intake Disorder (ARFID)	
307.1 Anorexia Nervosa (AN)	
Subtypes: (F50.01) Restricting Type (F50.02) Binge-Eating/Purging Type	
Clarifiers: In Partial Remission In Full Remission	
Severity: Based on BMI ( <i>adults</i> ) or BMI percentile ( <i>children/adolescents</i> ), clinical symptoms, degree of functional disability, and need for supervision: <i>Mild, Moderate, Severe, Extreme</i>	
307.51 (F50.2) Bulimia Nervosa (BN)	
Clarifiers: In Partial Remission In Full Remission	
Severity: Based on number of compensatory behaviors in a week, other symptoms, and degree of functional disability: <i>Mild, Moderate, Severe, Extreme</i>	
307.51 (F50.81) Binge-Eating Disorder (BED)	
Clarifiers: In Partial Remission In Full Remission	
Severity: Based on number of binge eating episodes in a week, other symptoms, and degree of functional disability: <i>Mild, Moderate, Severe, Extreme</i>	
307.59 (F50.89) Other Specified Feeding or Eating Disorder (OSFED)	
Examples: Atypical Anorexia Nervosa Bulimia Nervosa ( <i>low frequency or limited duration</i> ) Binge-Eating Disorder ( <i>low frequency or limited duration</i> ) Purging Disorder Night Eating Syndrome	
307.50 (F50.9) Unspecified Feeding or Eating Disorder	
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**TABLE 1. DSM-5 Diagnostic Criteria for Anorexia Nervosa (4)**

A. Restriction of energy intake relative to requirements, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. *Significantly low weight* is defined as a weight that is less than minimally normal or, for children and adolescents, less than that minimally expected (e.g., falling off a previously followed growth curve).

B. Intense fear of gaining weight or of becoming fat or persistent behavior that interferes with weight gain, even though at a significantly low weight.

C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

Types:

Restricting type: During the last 3 months, the individual has not engaged in recurrent episodes of binge eating or purging behavior (i.e., self-induced vomiting or misuse of laxatives, diuretics, or enemas). This subtype describes presentations in which weight loss is accomplished primarily through dieting, fasting, and/or excessive exercise.

Binge-eating/purging type: During the last 3 months, the individual has engaged in recurrent episodes of binge eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

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**TABLE 6. DSM-5 Diagnostic Criteria for Bulimia Nervosa (4)**

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:

1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than what most individuals would eat in a similar period of time under similar circumstances.

2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).

B. Recurrent inappropriate compensatory behaviors in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise.

C. The binge eating and inappropriate compensatory behavior both occur, on average, at least once a week for 3 months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

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<https://pedsinreview.aappublications.org/content/pedsinreview/37/8/323.full.pdf>



**TABLE 7. DSM-5 Diagnostic Criteria for Binge-Eating Disorder (4)**

**A.** Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:

1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than what most individuals would eat in a similar period of time under similar circumstances.
2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).

**B.** The binge-eating episodes are associated with three (or more) of the following:

1. Eating much more rapidly than normal.
2. Eating until feeling uncomfortably full.
3. Eating large amounts of food when not feeling physically hungry.
4. Eating alone because of feeling embarrassed by how much one is eating.
5. Feeling disgusted with oneself, depressed, or very guilty afterward.

**C.** Marked distress regarding binge eating is present.

**D.** The binge eating occurs, on average, at least once a week for 3 months.

**E.** The binge eating is not associated with the recurrent use of inappropriate compensatory behavior as in bulimia nervosa and does not occur exclusively during the course of bulimia nervosa or anorexia nervosa.

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**TABLE 9. DSM-5 Diagnostic Criteria for Avoidant/Restrictive Food Intake Disorder (4)**

**A.** An eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating) as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one (or more) of the following:

1. Significant weight loss (or failure to achieve expected weight gain or faltering growth in children).
2. Significant nutritional deficiency.
3. Dependence on enteral feeding or oral nutritional supplements.
4. Marked interference with psychosocial functioning.

**B.** The disturbance is not better explained by lack of available food or by an associated culturally sanctioned practice.

**C.** The eating disturbance does not occur exclusively during the course of anorexia nervosa or bulimia nervosa, and there is no evidence of a disturbance in the way in which one's body weight or shape is experienced.

**D.** The eating disturbance is not attributable to a concurrent medical condition or not better explained by another mental disorder. When the eating disturbance occurs in the context of another condition or disorder, the severity of the eating disturbance exceeds that routinely associated with the condition or disorder and warrants additional clinical attention.

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## Example Questions to Ask Adolescents with a Possible Eating Disorder

**TABLE 2. Example Questions to Ask Adolescents with a Possible Eating Disorder**

<b>Weight History</b>	<ul style="list-style-type: none"> <li>• What was your highest weight? How tall were you? How old were you?</li> <li>• What was your lowest weight? How tall were you? How old were you?</li> <li>• What do you think your weight should be? What feels too high? What feels too low?</li> </ul>
<b>Body Image</b>	<ul style="list-style-type: none"> <li>• How much of your day is spent thinking about food or your body?</li> <li>• Are there body areas that cause you stress? Which areas? Do you do any body checking (ie, weighing, body pinching or checking, mirror checking)?</li> </ul>
<b>Diet History</b>	<ul style="list-style-type: none"> <li>• 24-hour diet history</li> <li>• Do you count calories/fat/carbohydrates? How much do you allow? What foods do you avoid?</li> <li>• Do you ever feel guilty about eating?</li> </ul>
<b>Exercise History</b>	<ul style="list-style-type: none"> <li>• Do you exercise? What activities? How often? How intense is your workout?</li> <li>• How stressed do you feel when you are unable to exercise?</li> </ul>
<b>Binge Eating and Purging</b>	<ul style="list-style-type: none"> <li>• Do you ever binge? On what foods? How much? How often? Any triggers?</li> <li>• Do you vomit? How often? How soon after eating?</li> <li>• Do you use laxatives/diuretics/diet pills/caffeine? What types? How many? How often?</li> </ul>
<b>Reproductive Health</b>	<p><u>Females:</u></p> <ul style="list-style-type: none"> <li>• When was your first period? Are they regular?</li> <li>• When was your last period? How much did you weigh?</li> </ul> <p><u>Males:</u></p> <ul style="list-style-type: none"> <li>• How is your libido?</li> <li>• Do you get morning erections? Has that changed?</li> </ul>
<b>Psychiatric History</b>	<ul style="list-style-type: none"> <li>• How is your mood? Any anxiety, panic attacks, obsessive-compulsive disorder, depression, self-injury?</li> <li>• Have you ever wished you didn't exist? When was that and how often? Any thoughts of suicide? What methods have you imagined? Past attempts?</li> <li>• Any prior therapy?</li> </ul>
<b>Substance Use</b>	<ul style="list-style-type: none"> <li>• Have you ever used tobacco, alcohol, or drugs? Which ones? How much? How often? Any blackouts or passouts?</li> <li>• Have you ever used steroids or stimulants? Caffeine consumption? Other substances?</li> </ul>
<b>Family History</b>	<ul style="list-style-type: none"> <li>• Does anyone in your family have a history of an eating disorder, obesity, or dieting?</li> <li>• Does anyone with a history of depression, anxiety, bipolar disorder, obsessive-compulsive disorder, substance abuse, or other psychiatric illness?</li> </ul>
<b>Review of Systems</b>	<ul style="list-style-type: none"> <li>• Dizziness, syncope, weakness, fatigue?</li> <li>• Pallor, easy bruising/bleeding, cold intolerance?</li> <li>• Hair loss, lanugo, dry skin?</li> <li>• Constipation, diarrhea, early fullness, bloating, abdominal pain, heartburn?</li> <li>• Palpitations, chest pain?</li> <li>• Muscle cramps, joint pains?</li> <li>• Excessive thirst and voiding?</li> </ul>
<b>HEADS Questions</b>	<ul style="list-style-type: none"> <li>• <b>H</b>ome: Who lives at home? What happens when there is an argument in the home?</li> <li>• <b>E</b>ducation: What grade are you in school? How are your grades?</li> <li>• <b>A</b>ctivities: What activities do you participate in?</li> <li>• <b>D</b>rugs: See Substance Use</li> <li>• <b>S</b>exual activity: Are you attracted to guys, girls, or both? Have you ever had sex? If yes, with guys, girls, or both? Oral, vaginal, anal? Condoms used sometimes, all the time, not at all? Second method of contraception used (for heterosexual sex)? History of sexually transmitted illnesses? Any unwanted sexual contact ever? Physical or emotional abuse?</li> <li>• <b>S</b>uicide/Depression: See Psychiatric History</li> <li>• <b>S</b>ocial media: How much/where do you spend time online?</li> </ul>

## Potential Physical Exam Findings in Eating Disorders

**TABLE 3. Potential Physical Examination Findings in Eating Disorders**

SYSTEM	PHYSICAL FINDINGS
Vital signs	Bradycardia, hypotension, orthostatic hypotension, hypothermia
Weight and growth	Body mass index, body weight percentile, growth trajectory changes
Head	Parotid gland swelling; enamel erosion, especially of lingual and occlusal surfaces; dental caries
Chest	Arrhythmia
Abdomen	Palpable stool, bloating, abdominal pain
Extremities	Edema, muscle atrophy, weakness
Skin	Dry skin, hair loss, lanugo, acrocyanosis

## Criteria for Hospital Admission for Patients with Eating Disorders

**TABLE 5. Criteria for Hospital Admission for Patients with Eating Disorders (5)**

• Heart rate <50 beats per minute while awake
• Heart rate <45 beats per minute while asleep
• Systolic pressure <90 mm Hg
• Temperature <35.6°C (96°F)
• Prolonged QTc or other arrhythmia
• Orthostatic changes in blood pressure (>10 mm Hg)
• Orthostatic changes in pulse (>20 beats per minute)
• Syncope
• Electrolyte abnormalities
• Esophageal tears or hematemesis
• Intractable vomiting
• Suicide risk
• Weight <75% of expected body weight or body fat <10%
• Ongoing weight loss despite intensive management
• Acute weight loss and food refusal
• Failure to respond to outpatient treatment

## Differential Diagnosis for Weight Loss, Vomiting, and Binge Eating

**TABLE 4. Differential Diagnosis for Weight Loss, Vomiting, and Binge Eating**

<b>Weight loss</b>
• Celiac disease
• Inflammatory bowel disease
• Malabsorption
• Hyperthyroidism
• Addison disease
• Acquired immunodeficiency syndrome
• Occult malignancies
<b>Vomiting</b>
• Migraine
• Pseudotumor cerebri
• Hydrocephalus
• Central nervous system malignancy
• Gastrointestinal disease
• Cyclic vomiting
<b>Binge eating</b>
• Obesity
• Major depressive disorder
• Borderline personality disorder
• Prader Willi syndrome
• Kleine-Levin syndrome








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