Anorexia Nervosa Treatment on the Inpatient Unit

Last updated December 2023.

Diagnostic criteria

- **Restriction of caloric intake** relative to requirements, leading to a significantly low body weight for age and sex. While there is no specific weight cut off, a BMI < 18.5 kg/m2 is often used.
- **Intense fear** of gaining weight or becoming fat.
- **Disturbance** in the way one's body weight or shape is experienced.
- Specify one of the following subtypes:
  Restricting type: During the last 3 months, the individual has not engaged in recurrent episodes of binge eating or purging behavior.
  Binge-eating/purging type: During the last 3 months, the individual has engaged in recurrent episodes of binge eating or purging behavior. (Seen in up to 50% of anorexia patients).

Initial Assessment

1. *Psychiatric*: In addition to confirming the diagnosis of anorexia, ask about common comorbidities such as major depression, anxiety disorders (especially OCD), substance use disorder, borderline personality disorder.
2. *Medical*: Get a medical consult to do a comprehensive medical H&P. Typical **medical symptoms** related to extreme weight loss and its complications include fatigue, postural lightheadedness, palpitations, amenorrhea (in female patients), cold intolerance, hair loss, and bone fractures. **Vital signs** may show hypotension, bradycardia, and hypothermia, and fluid restriction can cause orthostasis. **Labs** should include electrolytes, fasting glucose, liver function, CBC. Hypokalemia and hypomagnesemia are common in patients who purge, can lead to arrhythmia. Get EKG if electrolytes are abnormal.

Interdisciplinary Treatment Protocol. The goal of inpatient treatment of anorexia is to restore your patient's body weight to a BMI range that is closer to normal.

- *Nutrition and weight restoration*. Request a nutrition or dietetics consult. A hospital nutritionist will recommend a diet plan for gradual weight restoration. In severe cases you may have to initiate forced refeeding (see fact sheet Anorexia Nervosa: Forced Refeeding Procedures).
- *Meal supervision*. All meals and snacks are supervised by staff to ensure adherence to the meal plan. Patients may progress to more independence during the hospitalization.
- *Post-meal supervision*. Since many patients with anorexia purge following meals of any size, the usual protocol is to require supervision of patients for 1 hour following meals so that they do not purge in private areas, such as their rooms or bathrooms.
- *Medical monitoring*. This will generally be overseen by the hospitalist, and may include EKG, labs, vitals, and weights to monitor for refeeding syndrome and other medical stabilization. Inspect patients' pockets for objects they might have concealed to give the impression of a heavier weight.
- *Individual Psychotherapy*. Cognitive behavioral therapy is often used, especially in short-term treatment settings. CBT's primary objectives are to identify disordered thoughts and behaviors related to food and weight, and to recognize and sidestep triggers that lead to restrictive eating, bingeing, or purging.

- *Family therapy*: Family-Based Treatment (FBT) of anorexia is an evidence-based approach to weight restoration. Rather than focusing on addressing underlying family dynamics, this technique encourages parents to take a primary role in ensuring that their children eat adequate portions—eg., the parents actively supervise meals to ensure the child doesn't skip meals or purge afterward.
- *Group therapy*. Support groups, psychoeducation groups, mindfulness groups.
- *Aftercare planning*. For preparing a transition plan for continued treatment after discharge, including outpatient counseling, nutrition plans, psychiatrist follow-up, etc.
- *Pharmacotherapy.* Psychiatric medications are sometimes helpful for weight restoration and may improve comorbid psychiatric symptoms.
    - **Antipsychotics**: Olanzapine (typically dosed from 2.5-10 mg daily) produces a modest amount of weight gain (around 5 pounds more than placebo over the course of a several week inpatient admission) as well as reducing agitation and obsessional thinking (Han R, Bian Q, Chen H. Effectiveness of olanzapine in the treatment of anorexia nervosa: A systematic review and meta-analysis. Brain Behav. 2022 Feb;12(2):e2498. doi: 10.1002/brb3.2498. Epub 2022 Jan 12. PMID: 35020271; PMCID: PMC8865148.) There's less evidence for other antipsychotics.
    - **Antidepressants**: Fluoxetine and other SSRIs help reduce depression and anxiety symptoms associated with anorexia—but they don't significantly impact weight gain. Mirtazapine (15-45 mg at bedtime) has the benefit of also stimulating appetite and improving sleep. with Avoid bupropion due to seizure risk and avoid tricyclics which may increase arrhythmia risk.
    - **Other Options:** Several medications and supplements have limited and mixed data but are worth trying as second or third line agents.
        1. **Cyproheptadine**: Cyproheptadine is an antihistamine that has a similar pharmacological profile as mirtazapine (Remeron) and may improve weight gain and depressive symptoms in anorexia (target dose 8 mg QID, starting at 2 mg TID and titrated over three weeks).
        2. **Dronabinol**: A synthetic cannabinoid that is FDA-approved for weight loss in HIV/AIDS. Preliminary evidence suggests potential benefit for anorexia (2.5 mg twice a day).
        3. **Zinc**: Often low in anorexic patients. Supplementation with zinc gluconate 100 mg daily has been found to increase BMI.