Not all hunger is the same

Hyperphagia is a chronic pathological condition characterized by insatiable hunger and impaired satiety, often accompanied by a persistent preoccupation with food and abnormal food-seeking behaviors. **Hyperphagia can be caused by impairment of the MC4R pathway**, a signaling pathway in the hypothalamus that plays a key role in energy balance and weight regulation.[1,2]

MC4R PATHWAY IMPAIRMENT CAN BE CAUSED BY[1,3-5]

- **Cause:** Genetic variants in one or more genes, which can lead to genetic conditions that cause obesity
  - These conditions can include Bardet-Biedl syndrome (BBS) and POMC, PCSK1, and LEPR deficiencies
- **Occurrence:** These patients may experience hyperphagia from birth, and do not have a reference to non-hyperphagic hunger

- **Cause:** Injury to the hypothalamus, most commonly caused by a brain tumor and its treatment
  - Injury to the hypothalamus can lead to acquired hypothalamic obesity (HO)
- **Occurrence:** These patients usually notice a marked change in their hunger and satiety after hypothalamic injury

IDENTIFYING SYMPTOMS OF HYPERPHAGIA[1,2]

- Persistent preoccupation with food due to shortened duration or failure of satiety*
- Prolonged feelings of hunger
- Prolonged time to satiation
- Shortened duration of satiety
- Impaired satiety that may result in increased food intake; please note that for patients with acquired HO, this may not always be the case

Please note: Not all symptoms will result in changed behavior.

*This is distinct from food noise or other overeating behaviors.

IDENTIFYING BEHAVIORS ASSOCIATED WITH HYPERPHAGIA[2]

- Eating extremely quickly, frequently, and excessively
- Distress if food is unavailable and negotiating/arguing for more food
- Waking up at night for food
- Sneaking, stealing, or hiding food, and in severe cases, eating discarded food
- Difficulty with concentration and focus at work/school due to preoccupation with food or hunger
- Eating to feel less hungry, but never achieving a feeling of fullness

Symptoms and behaviors can vary widely in presentation and severity among patients, even those with the same underlying condition. Not all patients will exhibit hyperphagic behavior, and some may adopt coping strategies to manage symptoms and maintain normal food intake.

Hyperphagia is NOT the same as occasional overeating, hedonic overeating, or binge eating. It is a pathological condition with its own set of persistent symptoms and behaviors.[2]

Hyperphagia can have an impact on both quality of life and weight

Impact on quality of life for patients and their families[2,6]

- Psychological manifestations, including anxiety, depression, frustration, and/or shame
- Inability to focus and strained relationships with friends and family due to preoccupation with food
- Worsened sleep quality due to nighttime eating which can exacerbate existing sleep issues for patients with acquired hypothalamic obesity (HO) and/or obesity-driven sleep apnea

Helping to manage these negative impacts on quality of life is important, even if patients do not have an increased caloric intake due to their hyperphagia.

Impact on weight[1,3-5,7,9-11]

- Because hyperphagia is characterized by insatiable hunger and impaired satiety, patients may consume more calories consistently, which can lead to weight gain; weight gain can be a major risk factor for related morbidity and mortality
- Even if obesity is controlled, hyperphagia may still persist and impact quality of life

While traditional weight management may result in limited short-term weight loss and reduced hunger, these approaches have shown limited efficacy in producing sustained results.

Confirming if your patient has hyperphagia is critical. It can help[1,3,12]:

- Lead to optimal management of their specific condition
- Determine if further diagnostic action may be needed
- Reduce the progression of obesity and its cumulative impact on overall health and quality of life, especially if diagnosed early

According to the 2023 AAP and OMA guidelines, managing hyperphagia can be challenging and may require the use of pharmacotherapy. To learn more, visit HCP.DifferentObesity.com.[1,13]

AAP=American Academy of Pediatrics, OMA=Obesity Medicine Association

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