Not All Hunger is the Same

Identifying the type of hunger your patient has can help:

- lead to optimal management of their specific disease
- raise suspicion for a possible MC4R pathway disease
- reduce the progression of obesity and its cumulative impact on overall health and quality of life, especially if diagnosed early

Episodic/Periodic

Occasional overeating

Eating beyond satiety at a special occasion or celebratory meal (eg, Thanksgiving)¹

Hedonic overeating

Eating beyond satiety and metabolic needs, influenced by appetite and cravings^{2,3}

Cause:

 The pleasure centers in the brain, often driven by emotion or environmental circumstances^{2,3}

Binge eating

Episodic consumption of large amounts of food beyond hunger and/or satiety within a short period with a loss of control. If recurring, defined as Binge Eating Disorder (BED).^{1,2}

Behaviors may include:

- Rapid eating⁵
- Eating in isolation⁵
- Distress due to eating behavior¹

Cause:

Psychological factors, family history, dieting, gender^{2,4,5}

Persistent

Hyperphagia caused by MC4R pathway impairment

Pathological, insatiable hunger and impaired satiety differentiated from other types of overeating by its severity and persistence.

Hyperphagia is also marked by:

- Persistent preoccupation with food⁴
- Prolonged time to satiation and shortened duration of satiety⁴
- Prolonged feeling of hunger⁴
- Specific abnormal behaviors

Behaviors may include:

- Distress if food is unavailable
- Children: may exhibit as tantrums or persistent negotiation/ demand for food^{7,8}
- Adults: may manifest in emotional effects including sadness, frustration, irritability, anxiety and/or guilt⁹
- Abnormal food-seeking behaviors such as night eating or hiding food (children may also steal/sneak food)¹⁰
- Eating excessively not to be confused with binge eating⁷

Symptoms and behaviors may range in severity¹

Cause:

 Rare genetic variants in the MC4R pathway, a signaling pathway in the hypothalamus⁶

According to 2023 AAP and OMA guidelines, managing hyperphagia can be challenging and may require the use of pharmacotherapy^{4,11}

If you have patients with hyperphagia and early-onset obesity, it may be time to take a closer look as these are among the common features in people with Bardet-Biedl syndrome

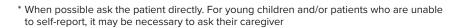
Are You Differentiating Hyperphagia Amongst Your Patients?

Differentiating and diagnosing hyperphagia can be challenging

- · The behaviors associated with hyperphagia, and their severity, can vary among patients
- Adult patients may have adapted their eating behaviors over time or feel shame in discussing their behaviors

Knowing the right questions to ask, and framing them as part of a medical diagnosis may help

To diagnose hyperphagia	To assess the impact of hyperphagia	
Ask if your patient* experiences most of these on a <u>consistent</u> basis, and for how long:	Ask if your patient's* overeating behaviors consistently have a negative impact on the following:	
Patient: Feels hungry after having just eaten Caregiver: Asks for more food after they have just eaten	Sleep	Does hunger impact sleep?
 Patient: Feels stressed due to hunger and/or often worries about food Caregiver: Displays distress due to hunger and/or often worries about food 	Mood or emotions	Does hunger impact mood? Does hunger or access to food cause distress?
 Patient/Caregiver: Wakes up asking for or seeking food in the middle of the night 	School or work	Does hunger impact ability to concentrate at work/ school or to get things done?
Patient/Caregiver: Eats extremely quickly	Leisure/recreational	Does hunger impact participation in social/ recreational activities?
 Patient: Hides what they are eating, or how much they are eating from others 	activities	
Caregiver: Sneaks, steals or hides food	Relationships	Does hunger impact relationships with family or friends? Are there strained or uncomfortable interactions with others around food?
 Patient/Caregiver: Eats food that has been discarded or dropped by someone else 		



Caregiver: Tries to negotiate or argue for more food than provided



Learn more about targeting a root cause of hyperphagia and obesity



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