



Not all hunger is the same

Identifying the type of hunger your patient experiences can help:

- lead to optimal management of their specific disease
- raise suspicion for a possible melanocortin-4 receptor (MC4R) pathway disease diagnosis
- reduce the progression of obesity and its cumulative impact on overall health and quality of life, especially if diagnosed early

Episodic/Periodic	Persistent
Occasional overeating	Hyperphagia caused by MC4R pathway impairment
<p>Eating beyond satiety at a special occasion or celebratory meal (eg, Thanksgiving)¹</p>	<p>A chronic pathological condition characterized by insatiable hunger, impaired satiety, and persistent abnormal food-seeking behaviors. Differentiated from other types of overeating by its severity and persistence. For some patients, symptoms and behaviors may range in severity.^{1,4,5}</p>
Hedonic overeating	
<p>Eating beyond satiety and metabolic needs, influenced by appetite and cravings^{1,2}</p> <p>Cause:</p> <ul style="list-style-type: none"> • The pleasure centers in the brain, often driven by emotion or environmental circumstances² 	<p>Characteristics:</p> <ul style="list-style-type: none"> • Persistent preoccupation with food⁴ • Prolonged time to satiation and shortened duration of satiety⁴ • Prolonged feeling of hunger⁴ • Specific abnormal behaviors
Binge eating	
<p>Episodic consumption of large amounts of food beyond hunger and in the presence of satiety within a short period with a loss of control. If recurring, defined as Binge Eating Disorder.^{1,2}</p> <p>Behaviors may include:</p> <ul style="list-style-type: none"> • Rapid eating³ • Eating in isolation³ • Distress due to eating behavior^{1,3} <p>Cause:</p> <ul style="list-style-type: none"> • Psychological factors, family history, dieting, gender^{3,4} 	<p>Behaviors may include:</p> <ul style="list-style-type: none"> • Distress if food is unavailable <ul style="list-style-type: none"> – Children: may exhibit as tantrums or persistent negotiation/demand for food^{6,7} – Adults: may manifest in emotional effects including sadness, frustration, irritability, anxiety, and/or guilt⁷ • Abnormal food-seeking behaviors such as night eating or hiding food (children may also steal/sneak food)⁸ • Eating excessively—not to be confused with binge eating¹ <p>Cause:</p> <ul style="list-style-type: none"> • Rare genetic variants or injury to the hypothalamus can impair the MC4R pathway, a signaling pathway in the hypothalamus⁹



According to 2023 American Academy of Pediatrics (AAP) and Obesity Medicine Association (OMA) guidelines, managing hyperphagia can be challenging and may require the use of pharmacotherapy.^{4,10}



Consider evaluating your patients with hyperphagia and early- or rapid-onset obesity for a rare disease



Recognizing hyperphagia in your patients

Differentiating and diagnosing hyperphagia can be challenging

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

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

To recognize hyperphagia	To assess the impact of hyperphagia	
Ask your patient or their caregiver* if the patient experiences most of these on a consistent basis and for how long:	Ask your patient or their caregiver* if the patient's overeating behaviors consistently have a negative impact on the following:	
<ul style="list-style-type: none"> • Patient: Feels hungry after having just eaten • Caregiver: Asks for more food after they have just eaten 	Sleep	Does hunger impact sleep?
<ul style="list-style-type: none"> • 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 restricted access to food cause distress?
<ul style="list-style-type: none"> • 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?
<ul style="list-style-type: none"> • Patient/Caregiver: Eats extremely quickly 	Leisure/recreational activities	Does hunger impact participation in social/recreational activities?
<ul style="list-style-type: none"> • Patient: Hides what they are eating or how much they are eating from others • 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?
<ul style="list-style-type: none"> • Patient/Caregiver: Eats food that has been discarded or dropped by someone else 		
<ul style="list-style-type: none"> • Caregiver: Tries to negotiate or argue for more food than provided 		

*When possible, ask the patient directly. For young children and/or patients who are unable to self-report, it may be necessary to ask their caregiver.

To learn more about MC4R pathway-driven obesity, visit **HCP.DifferentObesity.com** or scan the QR code.



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