# 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

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#### **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  $^{\rm 2,3}$ 

#### Cause:

• The pleasure centers in the brain, often driven by emotion or environmental circumstances<sup>2,3</sup>

### **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).<sup>1,2</sup>

### Behaviors may include:

- Rapid eating<sup>5</sup>
- Eating in isolation<sup>5</sup>
- Distress due to eating behavior<sup>1</sup>

#### Cause:

• Psychological factors, family history, dieting, gender<sup>2,4,5</sup>

Hyperphagia caused by MC4R pathway impairment Pathological, insatiable hunger and impaired satiety differentiated from other

Persistent

Hyperphagia is also marked by:

types of overeating by its severity and persistence.

- Persistent preoccupation with food<sup>4</sup>
- Prolonged time to satiation and shortened duration of satiety<sup>4</sup>
- Prolonged feeling of hunger<sup>4</sup>
- Specific abnormal behaviors

#### Behaviors may include:

- Distress if food is unavailable
  - Children: may exhibit as tantrums or persistent negotiation/ demand for food<sup>7,8</sup>
  - Adults: may manifest in emotional effects including sadness, frustration, irritability, anxiety and/or guilt<sup>9</sup>
- Abnormal food-seeking behaviors such as night eating or hiding food (children may also steal/sneak food)<sup>10</sup>
- Eating excessively not to be confused with binge eating<sup>7</sup>

Symptoms and behaviors may range in severity<sup>1</sup>

#### Cause:

• Rare genetic variants in the MC4R pathway, a signaling pathway in the hypothalamus<sup>6</sup>

According to 2023 AAP and OMA guidelines, managing hyperphagia can be challenging and may require the use of pharmacotherapy<sup>4,11</sup>

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:		
<ul> <li>Patient: Feels hungry after having just eaten</li> <li>Caregiver: Asks for more food after they have just eaten</li> </ul>	Sleep	Does hunger impact sleep?	
<ul> <li>Patient: Feels stressed due to hunger and/or often worries about food Caregiver: Displays distress due to hunger and/or often worries about food</li> </ul>	d due to hunger and/or often worries about food istress due to hunger and/or often worries <b>Mood or emotions</b>		
<ul> <li>Patient/Caregiver: Wakes up asking for or seeking food in the middle of the night</li> </ul>	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/	
<ul> <li>Patient: Hides what they are eating, or how much they are eating from others</li> <li>Caregiver: Sneaks, steals or hides food</li> </ul>	activities	Does hunger impact relationships with family	
<ul> <li>Patient/Caregiver: Eats food that has been discarded or dropped by someone else</li> </ul>	Relationships	or friends? Are there strained or uncomfortable interactions with others around food?	
• 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	of hyperphagia and obesity		

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# Rhythm