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**Joshua D. Feder, MD**  
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#### Learning Objectives

After reading these articles, you should be able to:

1. Identify strategies for mitigating antipsychotic-induced weight gain in children and adolescents.
2. Evaluate the pros and cons of various treatment options available for children and adolescents with bulimia.
3. Describe weight stigma and its potential impact on patients and clinical decision making.
4. Differentiate between ARFID and other eating disorders.

## Medication Management of Antipsychotic-Induced Weight Gain in Children and Teens

*John C. Raiss, MD, Assistant Clinical Professor of Child and Adolescent Psychiatry, UCLA David Geffen School of Medicine, Los Angeles, CA.*

Dr. Raiss has disclosed no relevant financial or other interests in any commercial companies pertaining to this educational activity.

Of approximately one million US children and adolescents, roughly 1% are prescribed second-generation antipsychotics (SGAs). These medications routinely breach the FDA's level of concern of >7% body weight gain. The worst offenders are olanzapine, quetiapine, and risperidone; lurasidone and ziprasidone are of less concern (Maayan L and Correll CU, *J Child Adolesc Psychopharmacol* 2011;21(6):517-535). This article examines the efficacy and safety of using off-label medications, such as metformin, to manage this side effect.

### Highlights From This Issue

#### Feature article

Rethink your approach to selecting and prescribing antipsychotics to prevent weight gain in our patients.

#### Feature Q&A

Many teens engage in bulimic behaviors. Addressing even sub-syndromal symptoms can help them achieve better outcomes.

#### Page 5

Weight stigma has a clinical impact on mental health. We can shift our thinking (eg, by focusing on health over weight and BMI) to combat this impact.

#### Page 8

Tease out patient history to differentiate between ARFID, anorexia nervosa, and other eating disorders, and to clarify comorbid conditions such as anxiety disorders.

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### Q&A With the Expert

## Assessing and Treating Bulimia in Teens and Young Adults

### James Lock, MD

*Professor of Child and Adolescent Psychiatry and Pediatrics, Stanford University. Senior Associate Chair for the Department of Psychiatry and Director of the Eating Disorders Program at Lucile Packard Children's Hospital, Palo Alto, CA.*

Dr. Lock has disclosed that he is the co-owner of the Training Institute for Child and Adolescent Eating Disorders. Dr. Feder has reviewed this educational activity and has determined that there is no commercial bias as a result of this financial relationship.

#### CCPR: When does bulimia typically present?

**Dr. Lock:** Symptoms usually begin at about 15 or 16, but patients may not meet full diagnostic criteria for bulimia until 18, 19, or 20. Often they are off at college by then, so they're being identified and treated more at that stage.

#### CCPR: What is the difference between "bulimic symptoms" and DSM-5 "bulimia nervosa"?

**Dr. Lock:** Someone who binge eats and purges but does not do so as frequently or as persistently as required by the DSM-5 would be described as having bulimic symptoms. The DSM-5 criteria require weekly binge eating and compensatory behaviors (eg, purging) for three months as well as overvaluation of shape and weight in terms of self-worth.

#### CCPR: How many teens have bulimia or bulimic symptoms?

**Dr. Lock:** About 1% of teens or fewer meet diagnostic



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criteria. An additional 3%–5% of adolescents have disordered eating, including bingeing and purging, that don't reach diagnostic thresholds. By age 20, about 2%–3% of young women will have bulimia (Hoek HW, *Curr Opin Psychiatry* 2016;29(6):336–339).

**CCPR: Is there a way to predict which teens who engage in these behaviors will cross the threshold to bulimia?**

**Dr. Lock:** We don't know what risk factors predict persistent bingeing, but early intervention is likely to change trajectories. If you are treating a kid for depression and they say they're bingeing and purging, look for treatments to assist them with managing these behaviors. Don't let kids who are bingeing and purging just continue without intervention. These are high-risk behaviors that alter their life experience.

**CCPR: How do we make it clear to teens and parents that bulimia is something they need to take seriously?**

**Dr. Lock:** Talk about medical problems. Our bodies are not designed to tolerate the change of volume associated with bingeing and purging, and the changes in potassium are hazardous to our cardiac and muscle systems. You get orthostatic hypotension with fainting because of dehydration from vomiting. Binge eating and purging also damage the gastrointestinal system. Teens do drastic things out of dissatisfaction with their weight and shape and erode their self-esteem, their confidence, and their relationships.

## EDITORIAL INFORMATION

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This CME/CE activity is intended for psychiatrists, psychiatric nurses, psychologists, and other health care professionals with an interest in the diagnosis and treatment of psychiatric disorders.

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**CCPR: How do these emotional impacts affect the person over time?**

**Dr. Lock:** These behaviors generalize, becoming coping strategies for other emotional problems—when the person has an argument, instead of addressing it, they eat and throw up. They use a dangerous behavior that was originally related to worries about appearance to cope with other problems in their life.

**CCPR: Does the person experience temporary relief through bingeing?**

**Dr. Lock:** Yes. It's like cutting. There's a dissociative quality to binge eating. People flood themselves with food to block feelings. The same is true with purging. These behaviors can temporarily block the pain of depression or anxiety. They are intermittently self-reinforcing and therefore hard to change.

**CCPR: How does this cycle get started?**

**Dr. Lock:** A teen who feels like they aren't attractive might try dieting. They get hungry, then they eat, then say, "I've failed my diet." They try it again with more intensity, but their hunger cues become stronger. This leads to uncontrolled binge eating.

**CCPR: How is bulimia different from anorexia?**

**Dr. Lock:** The person with bulimia feels like a failure at dieting, exercise, and the rest of life. It's a constant erosion of self-worth. Every time they binge and purge, they feel bad about it. But they feel stuck with it. They're ashamed and don't want their parents or anyone else to know. They'll binge and purge in the middle of the night or find other ways to hide what they're doing. By contrast, the person with anorexia nervosa has a sense of accomplishment from doing the work and losing weight.

**CCPR: Do teens admit to bingeing and purging if you ask them?**

**Dr. Lock:** There are structured assessments, but usually it gets identified because a parent will notice vomit in or on the toilet. Family members may hear them vomiting or notice cereal boxes gone from the pantry. Teens seldom report their bulimia because they're ashamed. Sometimes girls will binge and purge together in a network, usually in college or girls' schools. Screens such as the Sick, Control, One, Fat, Food (SCOFF) and Eating Disorder Screen for Primary Care (ESP) that the teen fills out sometimes yield information (Cotton MA et al, *J Gen Intern Med* 2003;18(1):53–56). But your best source is a parent or a sibling who says, "She's throwing up every day in the bathroom."

**CCPR: How do parents react to these behaviors?**

**Dr. Lock:** Parents are often aggravated. With bulimia, their child is throwing up, wasting food, making a mess. Parents can be critical and lack empathy because they dislike or are disgusted with the behavior. (*Editor's note: For a good resource for parents, see Dr. Lock's book Help Your Teenager Beat an Eating Disorder, listed in the "Eating Disorder Resources for Clinicians and Families: Books" table at the end of this Q&A.*)

**CCPR: How do you foster a trusting relationship with the teen to talk about these symptoms?**

**Dr. Lock:** Use a matter-of-fact approach. Say things like: "A lot of teenagers have these kinds of issues. I'm going to ask you about how you're feeling about your appearance and your weight. Have you tried to do anything about it, like diet or other things?" If they answer yes, ask: "Have you ever tried making yourself throw up?" Don't let your own shame or anxiety interfere. When

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you are comfortable asking these questions, your patient will be more able to tell you what they are doing.

**CCPR: Is bulimia different in boys vs girls?**

**Dr. Lock:** You might have more boys using exercise as a purging strategy or using drugs that affect body shape and weight. Some sports increase risk for bulimia, especially ones with weight standards. If you have a wrestler or gymnast in your office, screen that person for bulimia. (*Editor's note: See CCPR July/Aug/Sept 2021 for more on performance-enhancing drugs.*)

**CCPR: Are there differences in bulimia among various cultural, racial, or ethnic groups?**

**Dr. Lock:** Eating disorders are thought of as primarily affecting girls or young women who are White and upper middle class, but eating disorders occur in all populations, all socioeconomic groups. Some data suggest that binge eating and bulimia are more common than anorexia in Black communities, but there's too much noise in the data to draw conclusions (Hoek, 2016; Hoek HW et al, *Am J Psychiatry* 2005;162(4):748–752).

**CCPR: How can we more competently assess for eating disorders?**

**Dr. Lock:** Get comfortable asking the questions. By age 20, about 8% of kids have an eating disorder (Hoek, 2016). That rivals most other psychiatric diagnoses in children and adolescents. We must increase our exposure to training programs and professional meetings covering developmental aspects, assessment, screening, and treatment for eating disorders. It's also good to have an up-to-date handbook on eating disorders in your office library.

**CCPR: How do you decide whether to treat someone yourself or refer out?**

**Dr. Lock:** The treatment of choice is cognitive behavioral therapy (CBT). If you know how to do CBT and learn CBT for bulimia, then you can treat it. It's an outpatient treatment unless there's extreme behavioral difficulty with unrelenting bingeing and purging. We did a study of kids ages 12–18 with binge eating, purging, and bulimia where we compared CBT to family-based treatment, and we found that family-based interventions were more effective with this younger cohort (Le Grange D et al, *J Am Acad Child Adolesc Psychiatry* 2015;54(11):886–894.e2).

**CCPR: Why do you think family-based treatment works better than CBT in younger kids?**

**Dr. Lock:** Adolescents benefit from having help from their parents. Parents can also modify environmental cues and opportunities. For instance, they can stop purchasing the food that their teen tends to binge on, and even get rid of scales in the home. Also, family-based treatment can move parental criticism and judgment to acceptance, which really changes the psychological milieu of the adolescent.

**CCPR: Can medications help bulimia in teens?**

**Dr. Lock:** Serotonin reuptake inhibitors in relatively high doses have been studied in adults. Medication is better as an adjunctive treatment for adults, not as a stand-alone. We have had hardly any studies in children and adolescents, but we might try it as an adjunct to CBT. (*Editor's note: Remember that there is an FDA warning about seizure risk for bupropion with bulimic emesis.*)

**CCPR: What about specific treatment programs for teens with bulimia?**

**Dr. Lock:** Think carefully before referring to a program. Many therapists in the community treat kids for bulimia, but programs have a different dynamic. You have to decide whether putting a patient in a program might exacerbate or create a community of illness. If a teen has mild symptoms and is placed in a group with complex patients, they might adopt chronic and severe patterns of thinking and behavior. Effective behavioral change must take place in the environment where it will generalize—at home with the family and in school, not in contained environments. It doesn't mean programs don't have a role, but to maintain behavioral change, to generalize it and hold it, the treatment must be done in generalizable environments, which means home, school, family. (*Editor's note: For outpatient care of bulimia, we suggest a team that includes a primary care provider to monitor electrolytes and decide when a patient needs a medical hospitalization.*)

**CCPR: What is the prognosis for bulimia?**

**Dr. Lock:** For bulimia, mortality rates vary widely but are probably not as high as for anorexia. You can get cardiac arrest with changes in potassium, but also chronic morbidities such as metabolic and GI problems. The morbidity and psychological costs are extremely high. In our studies, about 60% of teens with bulimia or sub-threshold bulimia met diagnostic criteria for major depression. With treatment, about 40%–50% recover from bulimia. The treatments that are most effective for adolescents are family-based treatment and CBT.

**CCPR: What about other comorbidities, like emerging character disorders and trauma, sexual abuse in particular?**

**Dr. Lock:** Sexual abuse and trauma are risk factors for eating disorders, but they're not specific for eating disorders. People who have insecure relationships often feel vulnerable, developing unstable interpersonal relationships and anxiety symptoms, and those patients are at higher risk for bingeing and purging than teens who are just focused on weight and shape. This might include 25% or 30% of teens with bulimic symptoms. That's a clinical observation. I wish we had better data.

**CCPR: Any concluding thoughts?**

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**“If a teen has mild symptoms and is placed in a treatment program with complex patients, they might adopt chronic and severe patterns of thinking and behavior. Effective behavioral change must take place in the environment where it will generalize—at home with the family and in school.”**

James Lock, MD

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## Expert Interview—Assessing and Treating Bulimia in Teens and Young Adults

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**Dr. Lock:** If you're a child psychiatrist, expect to see eating disorders in two or three out of every 10 patients (Hoek, 2016). Screen for eating disorders and get information from parents and other family members. Pay attention to environments that are risky, including sports or school situations. And know that there are effective interventions that can help. There are good resources at the websites for the American Academy of Child and Adolescent Psychiatry ([www.aacap.org](http://www.aacap.org)) and the National Eating Disorders Association ([www.nationaleatingdisorders.org](http://www.nationaleatingdisorders.org)). Go out there. Learn. Develop your own expertise. (*Editor's note: See the resource tables on this page for more information.*)

**CCPR: Thank you for your time, Dr. Lock.**

Eating Disorder Resources for Clinicians and Families: Organizations	
Resource	Description
Academy for Eating Disorders (AED)	Education, training, and a forum for collaboration and professional dialogue: <a href="http://www.aedweb.org">www.aedweb.org</a>
American Academy of Child and Adolescent Psychiatry (AACAP)	<ul style="list-style-type: none"> <li>Practice parameters on eating disorders (2014): <a href="http://www.tinyurl.com/46bnt9rn">www.tinyurl.com/46bnt9rn</a></li> <li>Facts for families on eating disorders (2018): <a href="http://www.tinyurl.com/2p8tdj8e">www.tinyurl.com/2p8tdj8e</a></li> </ul>
National Eating Disorders Association (NEDA)	Screening tool for ages 13 and up, a helpline, and referrals for eating disorder programs: <a href="http://www.tinyurl.com/2p889nsk">www.tinyurl.com/2p889nsk</a>
National Institutes of Health (NIH)	Descriptions of eating disorders with resources for families: <a href="http://www.tinyurl.com/chytf93">www.tinyurl.com/chytf93</a>

Eating Disorder Resources for Clinicians and Families: Books	
Topic	Title(s)
Anorexia nervosa	Lock J. <i>Adolescent-Focused Therapy for Anorexia Nervosa: A Developmental Approach</i> . New York, NY: Guilford Press; 2020.
Avoidant/restrictive food intake disorder (ARFID)	<ul style="list-style-type: none"> <li>Bryant-Waugh R. <i>ARFID: Avoidant Restrictive Food Intake Disorder</i>. New York, NY: Routledge; 2020.</li> <li>Thomas J and Eddy K. <i>Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder (Children, Adolescents, and Adults)</i>. Cambridge, UK: Cambridge University Press; 2019.</li> <li>Lock J. <i>Family-Based Treatment for Avoidant/Restrictive Food Intake Disorder</i>. New York, NY: Routledge; 2021.</li> </ul>
Bulimia	Le Grange D and Lock J. <i>Treating Bulimia in Adolescents: A Family-Based Approach</i> . New York, NY: Guilford Press; 2009.
For families	<ul style="list-style-type: none"> <li>Lock J and Le Grange D. <i>Help Your Teenager Beat an Eating Disorder</i>. 2nd ed. New York, NY: Guilford Press; 2015.</li> <li>Fairburn CG. <i>Overcoming Binge Eating</i>. New York, NY: Guilford Press; 1995.</li> <li>Green K. <i>Lighter Than My Shadow</i>. London, UK: Jonathan Cape Publishing; 2013.</li> <li>Petro-Roy J. <i>Good Enough</i>. New York, NY: Macmillan; 2019.</li> <li>Boo S. <i>Eat, and Love Yourself</i>. Los Angeles, CA: BOOM! Box; 2020.</li> </ul>
General	<ul style="list-style-type: none"> <li>Fairburn CG and Brownell K. <i>Eating Disorders and Obesity: A Comprehensive Handbook</i>. New York, NY: Guilford Press; 2022.</li> <li>Lock J. <i>Pocket Guide for the Assessment and Treatment of Eating Disorders</i>. Washington, DC: American Psychiatric Association Publishing; 2019.</li> <li>See <a href="http://www.dietdoctor.com/low-carb/science">www.dietdoctor.com/low-carb/science</a> for information on low-carb and keto diets.</li> </ul>

## Medication Management of Antipsychotic-Induced Weight Gain in Children and Teens

Continued from page 1

### Metformin

Metformin, approved for type II diabetes, is the best-studied treatment for metabolic side effects of SGAs. Metformin increases insulin sensitivity in liver and muscle and decreases hepatic glucose production and intestinal glucose absorption. The large, detailed IMPACT study of metformin in children and adolescents on SGAs showed that while metformin stopped ongoing weight gain, it led to minimal weight loss and metabolic improvement over the course of the study. After 24 weeks, metformin patients lost 0.4 pounds, while control patients gained 8.5 pounds (Correll CU et al, *World Psychiatry* 2020;19(1):69–80).

### Cautions

The most common side effect of metformin in the IMPACT study was mild to moderate gastrointestinal distress, with

symptoms such as decreased appetite, abdominal pain, nausea and vomiting, diarrhea, and encopresis. These occurred early, were mostly transient, and were manageable by slowing titration or using a lower dose of metformin. Interestingly, metformin was associated with fewer problems with aggression, hostility, anger, irritability, and impulsiveness. The authors postulated this could be due to feeling less “hangry” or having better glucose homeostasis. Rare potential side effects, not observed in this study, are low serum vitamin B<sub>12</sub> level and metabolic acidosis. The only absolute contraindications to the use of metformin are chronic kidney disease and low glomerular filtration rate (GFR).

### When to start metformin

While metformin can prevent future weight gain, it is unlikely to decrease

existing weight. If a child is already overweight for their height or if you are starting an antipsychotic with a high risk of weight gain, start metformin with the antipsychotic. If families resist starting two medications at once, check your patient's height and weight, and start metformin if their weight begins to rise at a rate greater than expected based on their growth.

### How to prescribe metformin

Check kidney function prior to starting metformin. Metformin is contraindicated if the GFR is <30, due to increased risk of lactic acidosis. It is safest to have a GFR >60. Serum creatinine and serum B<sub>12</sub> level should be checked annually if kidney function is normal (eGFR >60), and more frequently if eGFR is 45–60. If eGFR is <45, it is safest to stop metformin.

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Q & A  
With  
the Expert

## Addressing Weight Stigma in Clinical Practice Sarah Nutter, PhD

Assistant professor, Department of Educational Psychology and Leadership Studies, University of Victoria, BC, Canada. Member of EveryBODY Matters, a multidisciplinary partnership of weight bias and obesity stigma researchers engaging in advocacy and outreach.

Dr. Nutter has disclosed no relevant financial or other interests in any commercial companies pertaining to this educational activity.



**CCPR:** You've done extensive research in the areas of weight stigma, body image, and eating disorders. Can you start by defining the terms weight stigma and fat shaming for us?

**Dr. Nutter:** Weight stigma includes the stereotypes, negative attitudes/beliefs, and discrimination that all occur based on someone's weight, typically when someone is perceived as too heavy. Internalized weight stigma occurs when someone directs these stereotypes, attitudes, and beliefs toward the self. Fat shaming is a form of weight stigma, where someone is made to feel badly about themselves due to their weight.

**CCPR:** How are culture and gender related to fat shaming and weight stigma?

**Dr. Nutter:** Western culture carries rigid body ideals of thin, toned women and lean, muscular men. People who don't conform to these ideals often feel ashamed. Women experience weight stigma at lower body weights compared to men, but men also experience it—and they are experiencing it more often compared to the past (Himmelstein MS et al, *Obesity (Silver Spring)* 2018;26(6):968–976).

**CCPR:** How does weight stigma affect the mental health of children and adolescents?

**Dr. Nutter:** Weight stigma leads to increased body dissatisfaction, body shame, risk of eating disorders, symptoms of anxiety and depression, and risk of suicide (Jendryca A and Warschburger P, *Appetite* 2016;102:51–59). Children as young as 4 demonstrate friendship preferences and social exclusion based on weight (Parnell J et al, *Stigma and Health* 2021;6(3):344–353). Weight-based bullying is a serious problem for both children and adolescents. Kids might feel that it's more socially acceptable to shun or make fun of peers about their weight versus attacking people about, say, their gender identity or race. Weight stigma and discrimination also leads to self-exclusion from sport and exercise settings for teens and adults, as well as discrimination in employment (Thedinga HK et al, *BMC Public Health* 2021;21(1):565).

**CCPR:** Are there specific psychiatric disorders associated with weight stigma?

**Dr. Nutter:** Body dissatisfaction and shame contribute to disordered eating behaviors, which can lead to clinical eating disorders. Anxiety and depression can co-occur, and these mental health challenges can carry forward into adulthood, influencing a person's mental health and relationship with their body. In a longitudinal study, adolescents who perceived themselves to be overweight had a 7.7% higher risk of suicide, and that risk increased over time (Daly M et al, *Int J Obes* 2020;44(10):2075–2079).

**CCPR:** We typically track obesity using body mass index (BMI). What are your thoughts about BMI?

**Dr. Nutter:** BMI uses height and weight to come up with a number that is supposed to predict your risk of weight-related health problems. It's calculated by dividing your weight in kilograms by your height in meters squared. It's convenient as a population-level screening tool since you don't need to draw blood. But weight is not a good proxy for health, and it doesn't predict metabolic health of people across the weight spectrum (Tomiya AJ et al, *Int J Obes (Lond)* 2016;40(5):883–886). BMI data can also enable discrimination. People at all ages have been denied insurance coverage and healthcare based on BMI.

**CCPR:** Are major health organizations moving away from using BMI?

**Dr. Nutter:** Yes. The new Canadian Clinical Practice Guidelines for the Treatment of Obesity in Adults define obesity as “adiposity that *may* impair health” ([www.tinyurl.com/267m4s3s](http://www.tinyurl.com/267m4s3s)), although those guidelines aren't for kids. The word “may” is important because not all people with higher body weights have obesity. Many people are perfectly healthy at higher body weights. This broadening focus on health independent of weight might reduce weight stigma for children and teens too. That said, the World Health Organization still uses a BMI-based definition of obesity.

**CCPR:** As clinicians, we may inadvertently contribute to weight stigma by focusing on these numbers as well as other pre-conceived ideas about higher weights. Should we stop using BMI?

**Dr. Nutter:** Even if you are required to document BMI, frame your care in a way that avoids focusing on BMI. Instead, help your patient to cultivate positive attitudes about their body and engage in healthy living habits (*Editor's note: See “What Is Body Positivity?” sidebar on page 6*). Weight stigma and fat shaming can permeate care, including how you conceptualize your patient's problem list, track their progress, and create treatment plans. Examine your own beliefs about weight and

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**“BMI uses height and weight to come up with a number that is supposed to predict your risk of weight-related health problems. But weight is not a good proxy for health, and it doesn't predict metabolic health of people across the weight spectrum.”**

Sarah Nutter, PhD

how those beliefs shape your attitudes and actions with patients. Support healthy attitudes and behaviors as opposed to focusing solely on weight.

**CCPR: What are some better ways to talk with our patients about weight and health?**

**Dr. Nutter:** Help children, teens, and families rethink their ideas about weight and health. Break the association between weight and identity: “Weight is complex, and a lot of it is genetic. Your weight doesn’t make you good or bad. It isn’t a moral failing.” Focus on health independent of weight: “Your weight doesn’t tell us how healthy you are. Health is more about things like blood pressure and cholesterol levels.” Tell them about weight stigma and its influence on health: “When we make people feel badly about their weight, that shame is actually bad for their health.”

**CCPR: How can we help our patients and families change their attitudes about their bodies?**

**Dr. Nutter:** Actively remove the emphasis on thinness and replace it with an emphasis on self-acceptance. In our culture, beauty and weight are interconnected. Many teens weigh themselves frequently or dwell on social media content that promotes unhealthy ideals of weight. These behaviors only make them feel worse. Ask your patients: “What is beauty?” “Tell me what you are seeing in the media about beauty and weight—do you believe it? How come?” “Do you really think that everyone who doesn’t fit the mold can’t be beautiful?” “What things make you feel sad or ashamed of your body? How would you like things to be different?” (*Editor’s note: See resource tables for clinicians and families on page 4.*)

**CCPR: When kids and families ask about dieting, how should we respond?**

**Dr. Nutter:** Remind them that 95% of people who lose weight through dieting and exercise gain it back, often exceeding their original weight, in three to five years (Nordmo M et al, *Obes Rev* 2020;21(1):e12949). Don’t engage in talk about dieting. Instead, say something like, “Let’s forget about dieting and talk about intuitive eating—how to listen to your body and what your body needs.” Or, “Let’s focus on eating well so that we can give your body the nutrition it needs to be healthy.”

**CCPR: Can you say more about intuitive eating?**

**Dr. Nutter:** Intuitive eating uses mindful eating behaviors to help a person recognize their body’s hunger and satiety cues, and other kinds of hunger (not nutritional). Help kids and teens pay attention to hunger, not deny it or deprive themselves. For example, if a teen is experiencing cravings for certain kinds of foods, say, “Eat when you are hungry. It’s OK to eat what you like.” Then consider the other reasons the patient is eating aside from hunger. Is it anxiety? Boredom? Is it medication related? Part of the family culture?

**CCPR: How do we work with patients to figure out these reasons? Kids aren’t always self-aware that they are eating out of boredom, for example.**

**Dr. Nutter:** With boredom, three emotions might be at play: feeling dissatisfied, feeling restless, or feeling unchallenged. Before thinking about solutions, ask the patient about these possibilities one by one (Moynihan AB et al, *Front Psychol* 2015;6:369). Differentiate with the patient or parents whether the eating is related to being physically hungry (eg, growling stomach, a headache, feeling shaky); craving a specific food, which may indicate a need for something in that food; being stressed, which often includes craving sweet, salty, or fatty food; or mindless eating, such as when a person munches on food while their attention is more focused on other activities like watching videos or sports.

**CCPR: Let’s say we have confirmed that a kid is eating out of boredom. What do we do to help?**

**Dr. Nutter:** Create a judgment-free zone while increasing awareness and understanding. Find supportive words that avoid shaming the patient. Don’t say: “There’s so much you could be doing instead of eating.” Say instead: “Let’s think about the situations where you feel bored.” Maybe there are other issues behind the boredom, such as loneliness or anger. Take time to unpack those issues. Then brainstorm other ways to respond to boredom, including cultivating social connection and moving their body.

**CCPR: Kids who don’t enjoy sports or aren’t active often have trouble exercising. How do we approach that?**

**Dr. Nutter:** Change the conversation. Rather than talking about exercise for weight loss, talk about building joy in the act of movement: “Let’s find activities that you enjoy for the sake of the activity, not to lose weight, and in places where you won’t feel judged or shamed.” Brainstorm ways to incorporate movement that make kids feel good in their day-to-day lives. This becomes something positive to track. On follow-up I’ll ask: “You’ve made some changes—do you have more energy? Are you sleeping better? Do you feel more in tune with or more capable in your body?”

**CCPR: How should we respond to requests for weight loss medication or bariatric surgery?**

**Dr. Nutter:** Look at the reason for the request. For a patient who will do whatever it takes to lose weight, the weight loss isn’t going to fix them. Is the request a reflection of internalized weight stigma? Educate your patients and create a plan that improves their health independent of weight. This includes intuitive eating, meaningful activities, and addressing social determinants of health. If you use medication, use it to promote health, not weight loss. For patients who ask for bariatric surgery, be sure they know that they will have lifelong physiological changes from the surgery and that many people who receive a bariatric procedure

### What Is Body Positivity?

The body positivity movement encourages everyone to love their body, regardless of shape or size. For individuals affected by weight stigma or fat shaming, positive embodiment can help reduce the negative mental health consequences associated with these prejudices. Children and teens can become more comfortable with their bodies by understanding that it is realistic for people to come in all shapes and sizes and that this diversity should be appreciated. For more information on body positivity, see [www.thebodypositive.org](http://www.thebodypositive.org) as well as Dr. Catherine Cook-Cottone’s book *Embodiment and the Treatment of Eating Disorders* (New York, NY: W. W. Norton & Company, 2020).

regain weight or don't lose as much weight as they'd hoped. Patients who undergo bariatric surgery are often disappointed with their weight loss because they have a specific weight in mind and they don't meet that magic number.

**CCPR: How do you address social determinants that impact health and weight?**

**Dr. Nutter:** People hold all sorts of identities—they can identify by race, gender, sex, socioeconomic status, weight, and more. Develop treatment plans that respond to the individual and their circumstances. Look at social forces like food environment and socioeconomic status. What food is available in the neighborhood? What can the patient afford? How does that influence health and weight? Do people have the physical space or the time to engage in physical activity? In some families, parents have multiple part-time jobs trying to keep afloat from month to month.

**CCPR: Any final thoughts?**

**Dr. Nutter:** Weight stigma impacts patients, and we are all culpable to a degree. Shift your practice from an emphasis on weight toward helping children and families develop positive and accepting attitudes about their bodies and healthier approaches to living.

**CCPR: Thank you for your time, Dr. Nutter.**



## Medication Management of Antipsychotic-Induced Weight Gain in Children and Teens

Continued from page 4

Titrate slowly to minimize gastrointestinal side effects. We recommend following the schedule used in the IMPACT trial.

For youth < 50 kg:

- Prescribe 250 mg at dinner for one week
- Increase to 250 mg at breakfast and dinner for one week
- Increase by 250 mg/week to a maximum of 500 mg twice daily

For youth 50–70 kg:

- Prescribe 250 mg at dinner for one week
- Increase to 250 mg at breakfast and dinner for one week
- Increase by 250 mg/week to a maximum of 1000 mg twice daily

For youth >70 kg:

- Prescribe 500 mg at dinner for one week
- Increase to 500 mg at breakfast and dinner for one week
- Increase by 500 mg/week to a final dose of 1000 mg BID

In addition to metformin, other medications have been tried in this context, and we cover them in more detail below.

### Topiramate

Topiramate also prevents weight gain better than it reduces weight (Zheng W et al, *Acta Psychiatr Scand* 2016;134(5):385–398). In a meta-analysis of randomized controlled trials (RCTs) of adjunctive topiramate for schizophrenia, 22 out of 26 trials showed topiramate led to a significantly lower body weight of 2.75 kg (weighted mean difference).

### Skipping the Antipsychotics

One way to avoid antipsychotic-induced weight gain is to avoid prescribing these medications. Studies show that SGAs are often not used for FDA-approved indications like autism, psychosis, bipolar mania, or Tourette's (Correll CU and Blader JC, *JAMA Psychiatry* 2015;72(9):859–860). Rather, SGAs are most commonly used off label to control aggression and behavioral dyscontrol in ADHD and disruptive behavior disorders. If stimulants are optimized first, when treating children with ADHD and severe aggression, about 63% of patients will improve and not need other medication treatment (Blader JC et al, *J Am Acad Child Adolesc Psychiatry* 2021;60(2):236–251). Guanfacine and clonidine are other alternatives. For details on how to optimize stimulants for aggression in ADHD, see *CCPR* Oct/Nov/Dec 2021.

An 11-week open trial in adolescents with medication-induced weight gain titrated topiramate to 150 mg/day, giving a mean weight loss of 2.62 kg (Tramontina S, *J Child Adolesc Psychopharmacol* 2007;17(1):129–134). A meta-analysis of RCTs of topiramate in the treatment of obesity in adults found that, at doses of 96–200 mg/day, trials of <28 weeks led to a weight loss of 4.11 kg, and trials of >28 weeks led to a weight loss of 6.58 kg (Kramer CK, *Obes Rev* 2011;12(5):e338–e347).

Side effects of topiramate include oligohidrosis (decreased sweating) and hyperthermia during exercise, metabolic acidosis, word-finding problems, and cognitive impairment (which might be avoided with slow titration by 25 mg/week). Other side effects include a two- to four-fold increased risk of kidney stones, paresthesias, acute myopia with angle-closure glaucoma, and visual field defects.

### How to prescribe topiramate

Start topiramate at 25 mg per day, increasing by 25 mg every week as tolerated to a maximum dose of 150–200 mg/day. Higher doses are not more efficacious based on the (scant) data available.

### What about combining metformin and topiramate?

The combination of metformin and topiramate was safe and effective in a recent case report of an 8-year-old with antipsychotic-associated weight gain (Nagy LR et al, *J Child Adolesc Psychopharm* 2022;32(1):72–76). Zheng and colleagues (2016) also suggest considering combining metformin and topiramate when monotherapy is insufficient. However, since both metformin and topiramate can cause metabolic acidosis, check labs every few weeks until you reach steady dosages. Then recheck after dosage adjustments or significant weight loss, as the latter also increases the relative dosage.

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Medication Management of Antipsychotic-Induced Weight Gain in Children and Teens  
Continued from page 7

## Glucagon-like peptide (GLP-1) agonists

GLP-1 agonists are almost all weekly injectable medications—with the exception of semaglutide (Rybelsus), which is used orally for adults with diabetes. They are FDA approved for use in type II diabetes and weight management. GLP-1 agonists decrease appetite, delay gastric emptying (which promotes satiety), and increase visceral and intra-organ lipolysis.

For children and teens, liraglutide (Victoza, Saxenda) is approved for ages 10 and up for type II diabetes, and ages 12 and up for weight management. It is expensive: Saxenda costs \$1,628/month retail, \$1,315/month with GoodRx. Typical prior authorization criteria include BMI >30 without comorbid conditions, or BMI >27 with comorbid conditions, and failure to lose 5% of body weight after three months in a weight loss program.

GLP-1 agonists are contraindicated in patients with a history of pancreatitis, medullary thyroid cancer (including a family history), and multiple endocrine neoplasia type II. They should be used with caution in patients with renal insufficiency, and they can increase the risk of gallbladder disease (He L et al, *JAMA Intern Med* 2022; Epub ahead of print).

Despite the allure of GLP-1 agonists, we do not yet have many data on their use in antipsychotic-associated weight gain, although case studies report good effects in young teens with Prader-Willi syndrome (Goldman VE et al, *J Clin Med* 2021;10(19):4540).

## Stimulants

You may be tempted to use stimulants to prevent antipsychotic-associated weight gain, but in fact studies have shown lack of efficacy (Penzner JB et

al, *J Child Adolesc Psychopharmacol* 2009;19(5):563–573).

## What about Lybalvi?

This combination of olanzapine and samidorphan (an opioid antagonist) was recently approved to treat adults with bipolar disorder and schizophrenia and is purported to cause less weight gain; however, it has not been studied in children.

**CCPR VERDICT:** When you need to use SGAs, consider starting with meds less likely to cause weight gain, such as lurasidone or ziprasidone. If you are using a different SGA, think about starting metformin simultaneously, especially for patients with BMI >25. For patients with BMI >30, consider starting a GLP-1 agonist with the SGA.

Q & A  
With  
the Expert

## Diagnosing and Treating Avoidant/Restrictive Food Intake Disorder Jennifer J. Thomas, PhD

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Dr. Thomas has disclosed no relevant financial or other interests in any commercial companies pertaining to this educational activity.



**CCPR:** Avoidant/restrictive food intake disorder (ARFID) is still a fairly new disorder, added to the DSM-5 in 2013. What exactly is it?

**Dr. Thomas:** ARFID is a newly designated feeding or eating disorder where the person does not eat enough food for a reason unrelated to body image problems, environmental factors, cultural reasons, or medical conditions. ARFID occurs at any age—from very young children to adults—but its onset is typically earlier than other eating disorders and it often appears before puberty, where it can be confused with developmental pickiness. That's a problem because ARFID is as common and serious as other eating disorders.

**CCPR:** What was the reason for including ARFID in the DSM-5?

**Dr. Thomas:** The ARFID diagnosis facilitates treatment and research. Prior to the DSM-5, at least half of patients with eating disorders had "eating disorder not otherwise specified." Some had picky eating, weight loss, difficulty gaining weight, or fear of eating, but without body image disturbances. In the DSM-IV, "feeding disorder of infancy and early childhood" captured underweight children before age 6, which we now diagnose as ARFID. However, ARFID includes children with these symptoms who are not underweight and are of all ages.

**CCPR:** DSM-5 includes three kinds of ARFID. Can you describe them?

**Dr. Thomas:** The three prototypical presentations of ARFID are: 1) sensory sensitivity leading to highly selective eating, like you might see with autism spectrum disorder (ASD); 2) lack of hunger or lack of interest in eating or food, which can sometimes be confused with anorexia nervosa; and 3) a fear of aversive consequences like choking or vomiting, which is similar to other anxiety disorders. Patients can have more than one of these presentations.

**CCPR:** Can you give an example?

**Dr. Thomas:** I treated an adolescent male with all three presentations—he only consumed hot dogs, bread, and Ensure nutrition drinks. This wasn't about his body image. He was terrified that any other foods might give him gastrointestinal

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distress, he didn't like foods with unfamiliar tastes or textures, and he had lost touch with understanding when he was hungry.

**CCPR: How common is ARFID?**

**Dr. Thomas:** We don't have large studies, but the research suggests that about 3% of children and adolescents may have ARFID (Kurz S et al, *Eur Child Adolesc Psychiatry* 2015;24(7):779–785). For adults, it's less than 1%, similar to anorexia nervosa (Hilbert A et al, *Int J Eat Disord* 2021;54(3):399–408).

**CCPR: How does ARFID affect everyday life for kids and their families?**

**Dr. Thomas:** It limits a child's ability to socialize normally, and it's time consuming and frustrating for the family. A child might say, "I can't go to summer camp because I don't know about the food there." Or, "I can't eat anything at the cafeteria or dining hall." Parents might report taking a suitcase of granola bars with them when the family goes on a trip. Or they'll drive three hours to the nearest fast food chain where the child will eat.

**CCPR: What about teens and young adults?**

**Dr. Thomas:** Parties, dates, and work meetings involve eating. Teens and young adults can feel self-conscious about eating foods that other people see as "kid foods." People with ARFID often eat bland, "white" foods like French fries, mac and cheese, or vanilla ice cream; they'll also often stick to a particular brand. That is challenging when you're expected to eat whatever is served.

**CCPR: Are there screeners we can use for ARFID?**

**Dr. Thomas:** The Eating Disorders in Youth-Questionnaire (EDY-Q) is validated for children ages 8–13 years ([www.tinyurl.com/navfcjhb](http://www.tinyurl.com/navfcjhb)). Our structured interview, the Pica, ARFID, and Rumination Disorder Interview (PARDI), takes 45 minutes, which is too long for busy clinicians to use, and the Nine Item ARFID Screen (NIAS) isn't validated in children (Bryant-Waugh R et al, *Int J Eat Disord* 2019;52(4):378–387). So the clinical interview is key for diagnosis.

**CCPR: How do you ask about ARFID?**

**Dr. Thomas:** Ask, "Do you think you have a problem with your eating? Do you think you're not getting enough food overall, or enough different kinds of foods?" Sometimes young children don't feel they have a problem at all. Ask the parents, who might tell you they go to 10 stores to find the only yogurt their child will eat. See if the child has fallen off their growth curve for height, weight, or body mass index (BMI). (*Editor's note: When it comes to body positivity, BMI is problematic, but in this context BMI matters from a medical perspective.*)

**CCPR: What do you look for on a growth curve?**

**Dr. Thomas:** Growth curves can have errors, and growth spurts can happen at different ages. But I'd worry if a child has been a 50th percentile kid and now they're at the 20th percentile. Think about the family's stature—if both parents are tall and the child is much shorter than expected, that's a red flag. ARFID is trickier with younger patients. The child's weight might slowly go down, or maybe it's always been low. Have they always been small, or have they always had ARFID? Some children are always particular, even about infant formula when they're extremely young. Others are OK until 2 years old and then start declining food.

**CCPR: Can ARFID obscure anorexia nervosa?**

**Dr. Thomas:** Yes, sometimes ARFID obscures anorexia nervosa, and at other times anorexia nervosa develops from ARFID once a child hits puberty. You might have a 12-year-old girl with very low weight and a selective diet who isn't worried about getting fat. Or that same 12-year-old may have anorexia all along and say, "I don't like ice cream." Another patient might gain weight then worry about their changing appearance, and we move from addressing ARFID to addressing body image. But in all of these cases, regardless of the diagnosis, a parent might not recognize the severity of the eating disorder, saying, "They don't want to eat. We can't force it."

**CCPR: Anorexia and ARFID can seem so similar. How can we tease out anorexia from ARFID?**

**Dr. Thomas:** Look at the foods that the child prefers. Kids with ARFID eat more carbohydrates and fewer vegetables and proteins compared to healthy kids (Harshman SG et al, *Nutrients* 2019;11(9):2013). Kids with anorexia nervosa trend more toward fruits and vegetables and are afraid of eating mac and cheese or candy. If someone's underweight and they come in and they're eating mac and cheese and ice cream, I'm thinking ARFID. If they're only eating salad, I'm thinking anorexia.

**CCPR: What are the treatments for ARFID?**

**Dr. Thomas:** Regardless of presentation (sensory sensitivity, lack of interest in eating or food, or fear of aversive consequences), the primary intervention is exposure to previously avoided foods. Clinicians use behavioral therapy, nutrition counseling, occupational therapy, and speech therapy, but few interventions are rigorously evaluated. At Mass General, we developed a cognitive behavioral therapy for ARFID (CBT-AR) for ages 10 and up (Thomas JJ et al, *Curr Opin Psychiatry* 2018;31(6):425–430). We borrow techniques used for pediatric feeding, anxiety, and eating disorders, and family-based treatment techniques. We track how much the patient is eating and whether they have the same food every day. We look at the details of diet restriction. If the person's diet is dominated by grains and dairy without a lot of fruits and vegetables, we'll give folks a long list of foods to consider adding to their diet.

**CCPR: What other conditions co-occur with ARFID that we need to think about?**

**Dr. Thomas:** More than 40% of children and teens with ARFID have a history of anxiety disorder

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**“Kids with ARFID eat more carbohydrates and fewer vegetables and proteins compared to healthy kids. If someone's underweight and they come in and they're eating mac and cheese and ice cream, I'm thinking ARFID. If they're only eating salad, I'm thinking anorexia.”**

Jennifer J. Thomas, PhD

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(Kambanis PE et al, *Int J Eat Disord* 2020;53(2):256–265). There is also overlap with ASD (Yule S et al, *J Acad Nutr Diet* 2021;121(3):467–492). ARFID treatment often utilizes techniques from anxiety disorder treatment (eg, exposure and response prevention) to address fears around food, but some patients need treatment for other anxiety disorders after remitting from ARFID itself. In ARFID we also see low iron as well as nutritional deficiencies like scurvy that pediatricians rarely look for. Patients with comorbid ARFID and ASD can experience even more severe impact on their nutrition, growth, and weight.

**CCPR: How can we explain ARFID to parents?**

**Dr. Thomas:** Tell them, “ARFID is a disorder; it’s not just your child being picky or stubborn.” It is not anorexia nervosa, bulimia nervosa, or a body image issue. We walk families through our free online workbook ([www.tinyurl.com/4nwtwuvm](http://www.tinyurl.com/4nwtwuvm)) and our treatment approach. We use pictures that represent the three presentations of ARFID: 1) for sensitivity and selectivity, a picture of a kid who doesn’t want broccoli; 2) for fear of aversive consequences, a picture of someone choking; and 3) for lack of interest in food, a photo of someone looking uninterested in their food. We ask the parents if their child is in one or more of these categories.

**CCPR: How do you talk with the child about treatment?**

**Dr. Thomas:** For kids with selective diets, rather than saying, “I think you need to add broccoli to your diet,” I might say, “Here are 50 vegetables. Which ones might you be willing to try or learn about?” We use nonjudgmental exposure: “What does this food look like? What does it feel like?” We have them do tastings (“What does it taste like?”) and then try to move from tasting to incorporating those foods into their diet. For children who have fears about choking or vomiting, we might create a hierarchy of foods they worry about and figure out how certain they are that the bad outcome will occur. We help them learn what would really happen when they eat those foods. For kids who aren’t interested in eating, we help them habituate to body sensations associated with feeling full (eg, chugging water to get used to feeling full). We borrow ideas from depression behavioral activation literature (eg, have them eat their favorite foods for pleasure). We also do relapse prevention.

**CCPR: How long is treatment?**

**Dr. Thomas:** For CBT-AR, we originally planned 20 sessions for non-underweight patients and up to 30 sessions for those who were underweight. Some patients need more sessions just to stay on their growth curve. Now, we are shortening CBT-AR, focusing on the most powerful interventions earlier in treatment with good results in as few as 15 sessions. We are developing a stepped model for families in which they can use an app to do exposures and add more support as needed.

**CCPR: Are there other approaches to ARFID treatment?**

**Dr. Thomas:** In our approach, kids drive variety of food and parents drive volume. Dr. Jim Lock developed a family-based treatment for ARFID, where parents lead the intervention. Dr. Will Sharp has a day hospital program using behavioral analysis at the bite level—take a spoon and follow the patient’s mouth until they accept it, giving immediate, tiny reinforcements. Dr. Rachel Bryant-Waugh has care pathways to determine when to refer to behavioral therapy versus other interventions, such as occupational therapy or speech therapy. The only randomized controlled trials (RCTs) are a small one from Dr. Sharp on intermediate outcomes of his day hospital program, and another small one from Dr. Lock on family-based treatment (Sharp WG et al, *J Pediatr Gastroenterol Nutr* 2016;62(4):658–663; Lock J et al, *Int J Eat Disord* 2019;52(6):746–751). Dr. Lock has a larger one ongoing as well. We hope our RCT of CBT-AR will be funded soon.

**CCPR: Are there medications for ARFID or comorbid conditions?**

**Dr. Thomas:** There are no FDA-approved medications for ARFID. Some clinicians try medications known for increasing appetite such as mirtazapine, cyproheptadine, and even antipsychotics. There are no RCTs, and in a couple of uncontrolled case series cyproheptadine and olanzapine appeared to help kids eat more and gain weight, but it is not clear that the kids had recovered from ARFID (Sant’Anna AM et al, *J Pediatr Gastroenterol Nutr* 2014;59(5):674–678; Brewerton TD et al, *J Child Adolesc Psychopharmacol* 2017;27(10):920–922). Our team might prescribe antianxiety or antidepressant medication for a co-occurring disorder or to help kids with mealtime. Our research shows that kids with ARFID have lower levels of ghrelin (an appetite-stimulating hormone) than equally weighted individuals with anorexia nervosa who are at similarly low weights, so it might be worth exploring an agonist (Becker KR et al, *Psychoneuroendocrinology* 2021;129:105243). (*Editor’s note: We will examine a study on medication treatments for ARFID in an upcoming issue of CCPR.*)

**CCPR: What does relapse prevention look like?**

**Dr. Thomas:** At the end of CBT-AR, we celebrate successes—restoring weight, correcting nutrition deficiencies, adding new foods—and we reinforce the strategies the kids used to change (eg, food logging, exposures). We identify ways to keep expanding their diet after treatment ends. We want them to continue the lifelong adventure of learning about new foods. If you stop trying new things in elementary school, think of everything you might miss out on. I didn’t start eating mushrooms until college and drinking coffee until graduate school, and now they are my favorites!

**CCPR: What kind of outcomes are you seeing?**

**Dr. Thomas:** About two-thirds of kids in our uncontrolled trial had remission from ARFID, as did about half of adults (Thomas JJ et al, *Int J Eat Disord* 2020;53(10):1636–1646; Thomas JJ et al, *J Behav Cogn Ther* 2021;31(1):47–55). I think we’re more successful with kids because ARFID starts early and may be chronic by adulthood. Also, with kids we can involve the parents to support change. Although ARFID can create a lot of difficulties for patients and families, I think there’s every reason to be hopeful that people of all ages can recover.

**CCPR: Thank you for your time, Dr. Thomas.**

## CME Post-Test

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1. Which antipsychotics are associated with less weight gain in children and adolescents (LO #1)?
  - a. Clozapine, olanzapine, and quetiapine
  - b. Lurasidone and ziprasidone
  - c. Haloperidol, quetiapine, and risperidone
  - d. Olanzapine, risperidone, and ziprasidone
2. According to Dr. Lock, approximately how common are eating disorders in child psychiatry (LO #2)?
  - a. Out of every 10 patients, two to three will have an eating disorder
  - b. Out of every 25 patients, two will have an eating disorder
  - c. Out of every 30 patients, one to three will have an eating disorder
  - d. Out of every 50 patients, one will have an eating disorder
3. In a 2018 study, what was the conclusion about weight stigma differences between men and women (LO #3)?
  - a. Women experience weight stigma at a higher body mass index (BMI) than men
  - b. Only women experience weight stigma
  - c. Men and women experience weight stigma at the same BMIs
  - d. Women experience weight stigma at lower BMIs than men, but men do experience weight stigma and with increasing frequency compared to the past
4. According to Dr. Thomas, more than 40% of children and teens with avoidant/restrictive food intake disorder (ARFID) have a history of anxiety disorder, and there's overlap with autism spectrum disorder (LO #4).
  - a. True
  - b. False
5. In patients with obesity, which of the following medications was associated with weight loss of 4.11 kg and 6.58 kg in trials of <28 weeks and >28 weeks, respectively (LO #1)?
  - a. Liraglutide
  - b. Stimulants
  - c. Topiramate
  - d. Metformin
6. In a study by Dr. Lock and colleagues, what was concluded about the efficacy of cognitive behavioral therapy (CBT) versus family-based interventions for binge eating, purging, and bulimia in adolescents (LO #2)?
  - a. CBT was more effective than family-based interventions
  - b. Family-based interventions were more effective than CBT
  - c. Neither CBT nor family-based interventions were effective
  - d. Both CBT and family-based interventions were effective with no significant differences between the groups
7. According to Dr. Nutter, which of the following about weight loss, weight stigma, and discrimination is true (LO #3)?
  - a. Weight predicts the metabolic health of people across the weight spectrum
  - b. 20% of people who lose weight through dieting and exercise gain it back in three to five years
  - c. Weight stigma and discrimination lead to self-exclusion from sport and exercise settings and are associated with an increased risk of suicide
  - d. Children don't demonstrate friendship preferences based on weight, while adults do
8. According to Dr. Thomas, what types of foods do children with ARFID eat more often, compared to healthy controls (LO #4)?
  - a. Fruits and vegetables
  - b. Proteins and vegetables
  - c. Carbohydrates
  - d. No differences in types of foods eaten between kids with ARFID and controls

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## This Issue:

**Eating Disorders in  
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### Note From the Editor-in-Chief

In 2015 at my first Graphic Medicine conference ([www.graphicmedicine.org](http://www.graphicmedicine.org)), clinicians and patients spoke about the daily hurt people experience with fat shaming, some to the point of suicidality. It's one thing to see it but another to fight it. Our interview with Dr. Sarah Nutter helps us combat weight bias.

We all see the impact of antipsychotics on weight. Our clinical update on antipsychotic weight gain can help you be assertive in preventing this common problem. ARFID is relatively new and can be confusing. Our interview with Dr. Jennifer Thomas helps sort it out. In this issue we also speak about bulimia with Dr. James Lock, author of a great book for parents. We also list helpful books and websites for both parents and clinicians.

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### Note to Our Subscribers

In the "Talking With Parents About Stimulant Treatment" article on page 4 in the April/May/June 2022 issue of *CCPR*, we stated that some professional organizations, such as the American Academy of Pediatrics, recommend CBT as the first treatment for ADHD in school-age children. We'd like to clarify that in fact, the American Academy of Pediatrics recommends behavioral approaches as the first treatment for ADHD for preschool children, but not school-age children. We apologize for misrepresenting this point.

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