

Avoidant/Restrictive Food Intake Disorder (ARFID)¹

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Avoidant/Restrictive Food Intake Disorder (ARFID) is a disturbance in typical dietary intake in adults and children because of negative experiences surrounding food and eating. This publication addresses the characteristics, health and nutrition implications, and medical nutrition therapy recommendations for ARFID.

DSM-5 Definition (APA 2013)

An eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating) as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one (or more) of the following:

- 1. Significant weight loss (or failure to achieve expected weight gain or faltering growth in children).
- 2. Significant nutritional deficiency.
- 3. Dependence on enteral feeding or oral nutritional supplements.
- 4. Marked interference with psychosocial functioning.

Background

Avoidant/Restrictive Food Intake Disorder (ARFID) is an eating disorder first defined in 2013 (APA 2013). Unlike many other eating disorders and disordered eating, ARFID

is distinct in that it presents in the absence of body image, weight, or other body size or shape concerns.

While sharing similarities with "picky eaters," individuals with ARFID often eliminate entire food groups from the diet instead of individual foods. Additionally, reports of recovery from ARFID without intervention are uncommon compared to "picky eaters," who usually grow out of their food aversions (Thomas et al. 2017). The most avoided foods include meats, vegetables, or fruits, although this depends entirely upon the individual and their trigger of food avoidance. Defining the triggers or cause for avoidance reflects the three primary presentations of ARFID:

Fear of Aversive Consequences

Fear of aversive consequences can be thought of as unpleasant outcomes from eating. This generally refers to the fear of symptoms such as vomiting or choking that may have resulted in a traumatic experience while eating or drinking in the past. Fear of these consequences may lead the individual to avoid the foods eaten just prior to the experience or all foods with similar characteristics (hard to chew, sharp edges, thick or hard to swallow, etc.).

Sensory Sensitivity

Sensory sensitivity is when individuals find certain foods undesirable due to hypersensitivity toward a specific characteristic or quality of those foods. The texture, smell, taste, or appearance of a food can trigger a feeling of disgust in an individual with ARFID.

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Disinterest in Eating

The final presentation commonly seen in clinical settings is a general lack of interest in eating or food (Bourne et al. 2020). Disinterest in eating may be due to poor appetite or other reasons such as parental pressure to eat.

With all three presentations, feelings toward certain trigger foods can lead to physical symptoms such as nausea and stomach pain. Limiting food intake can lead to weight loss, as well as gastrointestinal symptoms like delayed stomach emptying or constipation, making eating even more difficult.

Diagnosis

It is unknown how common the disorder may be among the general population. It commonly presents as a secondary diagnosis to individuals with attention deficit hyperactivity disorder (ADHD), autism spectrum disorder, generalized anxiety disorder, and internet gaming disorder (Bourne et al. 2020). Individuals with ARFID tend to be younger than those with other eating disorders, and ARFID is more commonly observed in males. Those who struggle with ARFID often have a long journey to recovery compared to eating disorders such as anorexia nervosa or bulimia nervosa (Thomas et al. 2017).

Health and Nutrition Implications

As defined in the *Diagnostic and Statistical Manual of Mental Disorders*, *Fifth Edition* (DSM-5) an individual with ARFID may experience weight loss or failure to gain weight, inadequate nutrition, and dependence on tube feeding or nutritional supplements, all of which impact social interactions and relationships (APA 2013).

Individuals with ARFID may be at a greater risk for anemia or low blood iron, weight loss, and loss of menstrual cycle in females (amenorrhea). They may also be at risk for electrolyte imbalance (e.g., low blood potassium or sodium) and bradycardia (low heart rate), leading to heart complications (Thomas et al. 2017). Individuals with ARFID often experience gastrointestinal symptoms such as abdominal pain, reflux, nausea, and diarrhea (Feillet et al. 2019).

Inadequate food consumption in individuals with ARFID leads to low energy (calorie), protein, fat, vitamin, and mineral intake. In children, inadequate intake leads to insufficient weight gain. In all individuals with ARFID, insufficient calorie and protein intake may result in loss of lean body mass (muscle).

Vitamin and mineral deficiencies can result in lower bone mineral density, posing a significant risk to normal growth and healthy aging. Bone-building starts during infancy and can continue until approximately 30 years old. This process relies on adequate calcium and vitamin D. Children and young adults that do not consume sufficient calcium and vitamin D will be at higher risk for osteoporosis (brittle bones that fracture easily) later in life. Nutritional management is key during treatment. While outpatient care is likely the first step in the management of this disorder, hospitalization is required in cases of severe malnutrition, and an entire team (including doctors, nurses, dietitian, psychologist, and other professionals) will provide support and medical care (Feillet et al. 2019).

Potential Treatment

Generally, treatment focuses on improving food intake and increasing the quantity and variety of foods in the diet. This is accomplished by addressing the cause or trigger of the eating behavior. Cognitive-behavioral therapy and familybased treatment are used widely in treating individuals with ARFID, aiming to address fears and anxiety. In those that do not respond to outpatient therapy or are severely malnourished, oral supplements such as protein shakes or meal replacement beverages may be started to supplement meals and increase caloric and nutrient intake. The medical team may turn to tube feeding in severe cases where oral intake is not tolerated. While tube feeding can significantly improve nutritional status, it can lead to dependency. It may be challenging to convince the patient and family to have it removed, because it may be seen as a way to relieve pressure from the parents, or the patient may not wish to return to eating food (Thomas et al. 2017). Medications may be recommended to stimulate appetite in individuals with ARFID.

Goals for treatment include improved nutritional intake, management of anxiety, and improved quality of life (e.g., ability to eat in social situations and have daily bowel movements). Increased growth velocity is desirable in children and is expected to follow improved nutritional intake.

Summary

Avoidant/Restrictive Food Intake Disorder is an eating disorder of serious medical concern due to the consequences of malnutrition, such as vitamin and mineral deficiencies, and the risks for long-lasting conditions such as poor bone development and heart complications. Avoidance of certain foods can be lifelong if not treated, and professional

assistance should be sought from a medical team, including a dietitian, physician, and psychologist.

References

American Psychiatric Association (APA). 2013. *Diagnostic and Statistical Manual of Mental Disorders*. 5th Edition. Am. Psychiatric Assoc. 21 (21): 591–643.

Bourne, L., R. Bryant-Waugh, J. Cook, and W. Mandy. 2020. "Avoidant/Restrictive Food Intake Disorder: A Systematic Scoping Review of the Current Literature." *Psychiatry Res.* 288:112961. https://doi.org/10.1016/j.psychres.2020.112961

Feillet, F., A. Bocquet, A. Briend, J. P. Chouraqui, D. Darmaun, M. L. Frelut, et al. 2019. "Nutritional Risks of ARFID (Avoidant Restrictive Food Intake Disorders) and Related Behavior." *Arch Pediatr.* 26 (7): 437–41. https://doi.org/10.1016/j.arcped.2019.08.005

Thomas, J. J., E. A. Lawson, N. Micali, M. Misra, T. Deckersbach, and K. T. Eddy. 2017. "Avoidant/Restrictive Food Intake Disorder: A Three-Dimensional Model of Neurobiology with Implications for Etiology and Treatment." *Curr Psychiatry Rep.* 19 (8): 54. https://doi.org/10.1007/s11920-017-0795-5