



EDEMA IN EATING DISORDER RECOVERY: CAUSES, PREVENTION AND TREATMENT



Edema occurs when excess fluid accumulates in the body, causing tissues to swell. This phenomenon tends to affect individuals more often during the refeeding process of eating disorder treatment, although it can happen at other times. In extreme cases, edema can be highly distressing as it can cause rapid weight gain and a great deal of discomfort.

Edema formation occurs as a response to many physiologic changes that take place during the eating disorder refeeding and recovery process, as discussed below. Reassurance and therapeutic support are vital when caring for patients with eating disorders who are experiencing edema. Medical professionals can take steps to both prevent and manage edema, putting each patient on a safe path to a long-term recovery.

REFEEDING EDEMA

▶ WHO IS AT RISK: ANY INDIVIDUAL WITH AN EATING DISORDER AND MALNUTRITION UNDERGOING REFEEDING

Edema often occurs during the refeeding process of eating disorder treatment. Fluid retention primarily occurs in the lower extremities. Please note that any edema that occurs during refeeding is not necessarily related to refeeding syndrome. Rather, all patients who undergo refeeding are at risk for this type of edema:

1. Carbohydrate intake increases as an individual starts to refeed, leading to a release of insulin.
2. Increased insulin secretion causes the kidneys to start to retain salt and water. Salt and excess fluids are reabsorbed.
3. As the fluids build up in the body, any area that is affected by gravity will start to show fluid retention and swelling. If the individual sits down, the buttocks will swell. If the individual is sleeping on their back, the bottom area of the body will swell.
4. This condition will normalize with time, but it can be uncomfortable, lasting days or weeks.
5. The weight gain and visible changes in body size associated with fluid retention can be particularly distressing for patients during this phase since many fear weight gain, suffer from body image concerns or have body dysmorphia.

To alleviate discomfort, the providers at ACUTE may recommend that patients elevate their legs or use compression stockings during refeeding. While edema is uncomfortable, it is not fatal.

Fortunately, this type of edema will resolve with continued management of refeeding. The body will adjust to both the changes in insulin secretion and salt and fluid retention, stabilizing itself over time.

EDEMA WITH REFEEDING SYNDROME

➤ WHO IS AT RISK: INDIVIDUALS WITH ANOREXIA NERVOSA, AVOIDANT RESTRICTIVE FOOD INTAKE DISORDER (ARFID), AND MALNUTRITION

Individuals with severe eating disorders who are undergoing refeeding can experience edema as part of refeeding syndrome, a serious and potentially fatal complication that can occur during nutritional rehabilitation. The biggest risk factor for refeeding syndrome is malnutrition. Refeeding syndrome occurs in significantly malnourished patients when they are given a diet of increasing calories orally, by nasogastric (NG) tube or intravenously. Quickly increasing caloric intake without frequent monitoring of blood tests and electrolyte replenishment can lead to this complication which is marked by a shift in fluids and electrolytes within the body. Compromised cardiovascular status, respiratory failure, seizures and even death can occur if this syndrome is not recognized and treated promptly.

Once refeeding syndrome is observed, it requires immediate medical intervention. At ACUTE, providers keep a close eye on all patients to ensure that refeeding syndrome does not occur; providers constantly monitor each patient's heart health, electrolytes, especially phosphorous levels, and more. To reduce the risk of refeeding syndrome, all care providers initiating nutritional rehabilitation should do so in an inpatient medical setting that specializes in preventing, identifying and managing refeeding syndrome. As concerning as this condition is, the development of refeeding syndrome is predictable and the best treatment for refeeding syndrome is prevention.



EDEMA WITH PSEUDO-BARTTER SYNDROME

➤ WHO IS AT RISK: INDIVIDUALS WITH A HISTORY OF PURGING BEHAVIOR (LAXATIVES, VOMITING, DIURETICS, ETC.)

Pseudo-Bartter Syndrome (PBS) is a medical complication that can affect people who have been chronically purging. This is a natural response to the severe dehydration that accompanies frequent purging.

1. With chronic purging, the adrenal glands overproduce the hormone aldosterone. Aldosterone is a hormone that acts on the kidneys, causing the kidneys to retain salt and water and maintaining blood pressure. This is a protective mechanism to prevent one from fainting due to low blood pressure.
2. Due to increased aldosterone levels, patients are at increased risk of edema formation both with continued purging and with cessation of purging. However, it is important to cease purging as this is a key step needed to treat the condition. In addition to stopping purging, restoration of intravascular volume, correcting low potassium levels, and use of diuretics are mainstay of treatment.
3. Individuals can gain approximately 3 to 15 pounds of water weight in a matter of days.
4. Medical providers should use caution when giving IV fluids to patients experiencing this condition. Any rapid infusion of IV fluids will worsen the edema and weight gain.

This condition can cause a large amount of emotional distress after an individual stops a long-standing pattern of purging. In fact, the edema may be so upsetting that the individual may question recovery and want to start purging again. Patients need to be reassured that PSB is part of the healing process and that the edema will resolve with appropriate treatment and time.

ACUTE providers take several steps to protect patients from PBS. Providers check blood and urine tests frequently and administer spironolactone and additional diuretics as needed. Aldosterone, salt and fluid levels will normalize over time, however patients should be aware that this process can often take weeks. The number one way to reduce the chance of developing edema with PBS is to stop purging and seek medically supervised refeeding with eating disorder treatment experts.



EDEMA DUE TO LOW ALBUMIN LEVELS

▶ WHO IS AT RISK: INDIVIDUALS WITH AN UNDERLYING INFLAMMATORY STATE

Albumin is a key protein that is made in the liver. Albumin is required to prevent fluid from leaking out of blood vessels. When albumin drops to a low level (hypoalbuminemia), fluid leaks out of blood vessels and into body tissues, resulting in edema. Inflammation causes a decrease in albumin levels through various mechanisms. The risk for hypoalbuminemia is not increased when individuals are engaging in eating disorder behaviors and contrary to popular belief, malnutrition does not increase the risk of hypoalbuminemia. Rather when hypoalbuminemia is identified it should prompt one to look for an underlying inflammatory condition. At ACUTE, patients diagnosed with hypoalbuminemia are more likely to be elderly as this age group tends to have more issues with inflammation. However, we monitor all patients to prevent this troublesome condition. Examples of ways we monitor include:

- » Evaluating each patient to screen for co-morbid illnesses
- » Evaluating for underlying inflammatory conditions
- » Checking for low albumin levels in the blood
- » Checking for albumin loss within the gastrointestinal tract and/or urine (when indicated)

Management of hypoalbuminemia includes the following:

- » Treatment of the underlying inflammatory condition(s)
- » Managing associated complications such as edema
- » Optimizing nutritional status in all patients with this condition

The discomfort and weight gain associated with edema can cause a great deal of anxiety for those in eating disorder recovery. Patients should be reassured that edema is a normal and common part of the refeeding process. It is temporary and resolves without long-term complications. However, most medical providers are not trained to identify and treat edema associated with refeeding syndrome and the other medical conditions listed above. This unfortunate reality underscores the need for severely underweight patients to begin the refeeding process in an inpatient medical setting capable of treating the most serious eating disorders.

Learn more about the medically supervised refeeding process at ACUTE.

**CALL 877-228-8348 TO
SPEAK WITH A MEMBER OF
THE ACUTE ADMISSIONS TEAM.**



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CENTER FOR EATING DISORDERS
& SEVERE MALNUTRITION
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¹ Mehanna, H. M., Moledina, J., & Travis, J. (2008) | ² Mehler, P. S. (n.d.) | ³ Bahia, A., Mascolo, M., Gaudiani, J. L., & Mehler, P. S. (2011)