

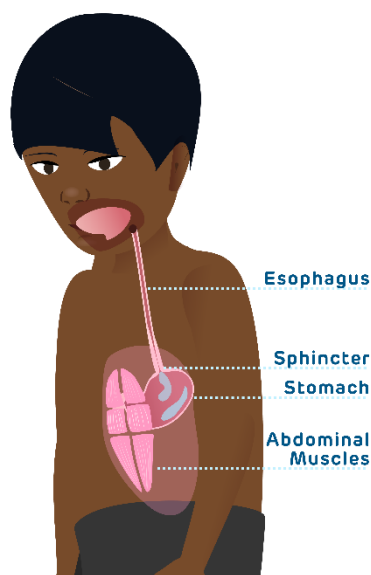
## Rumination Syndrome

### What is Rumination Syndrome?

Rumination is a disorder of gut-brain interaction (DGBI) or sometimes called a functional GI disorder (FGID). Rumination is what happens when foods and liquids come back up easily into the throat or mouth after eating or drinking. This is not forceful like with vomiting and gagging. Rumination usually happens during a meal or snack or soon after. It can happen many times during the day, and it might happen each time someone eats or drinks.

### How does rumination happen?

When eating or drinking, food or liquid travels from the mouth, down the esophagus (throat), and into the stomach. When food or liquid enters the stomach, the stomach might feel uncomfortable. In response to that discomfort, the abdominal muscles squeeze and place pressure on the stomach. At the same time, a small trap door at the bottom of the esophagus (called a sphincter) relaxes. This allows food or liquid to easily travel back up the esophagus. If the abdominal muscles squeeze hard enough, the food or liquid will come all the way back into the mouth.



### What causes Rumination Syndrome?

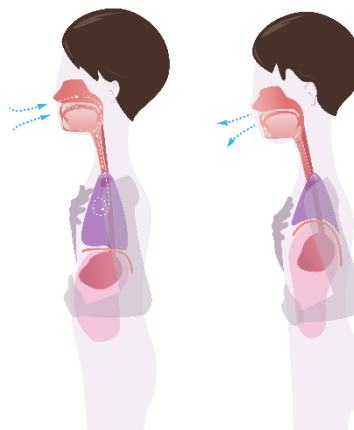
Sometimes, rumination can start after an illness or when there is a change or stressor in life. Rumination can also happen if there are other GI symptoms happening, such as reflux. For many people, there is no specific trigger or cause.

Rumination happens when there is a change in how the signals between the brain and stomach are working. This change causes the brain and stomach to get stuck in a pattern of bringing foods and liquids back up after swallowing. Over time, this pattern becomes an automatic response to eating and drinking. It's like the stomach learned to get rid of foods and liquids instead of keeping them down. Even though rumination happens automatically, there are things people can do to help the body unlearn this habit.

### How to change the rumination habit:

The best way to reduce rumination is with behavioral treatment. This often means working with a therapist or psychologist to retrain the body to keep foods and liquids down when eating or drinking. Behavioral treatment includes learning **diaphragmatic breathing (also known as belly breathing)**.

When taking a diaphragmatic breath, the abdomen (belly) will gently rise and expand, sort of like a balloon filling with air. When breathing out, the belly gently releases the air and goes back down. Abdominal muscles cannot do two things at once - they cannot squeeze to bring food or liquids back up and expand to breathe at the same time. Rumination will start to decrease when using diaphragmatic breathing regularly.



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Some people know when food or liquids are about to come back up. It may feel like pressure, pain, or the feeling of needing to burp. That feeling is a signal that it's time to use diaphragmatic breathing.

Behavioral treatment might also include learning other skills, such as recognizing when rumination happens, re-swallowing your food, and practicing different chewing and swallowing strategies. For example, taking smaller bites and chewing more slowly.

In addition to behavioral treatment, your treatment plan might include medicines or diet changes to manage other GI problems like constipation, reflux, or other symptoms.

#### **Getting started with treatment:**

It is important to practice diaphragmatic breathing every day to get comfortable with this strategy before using it to stop foods and liquids from coming back up. We recommend practicing every day for a few minutes during a calm time, such as before bed. Sometimes it is easier to first learn belly breathing while laying down. Once this breathing feels comfortable, it will be used before, during, or after eating and drinking to stop rumination from happening.

#### **How can caregivers help?**

Some older children and teens may be able to manage their rumination on their own. Family members might not even notice when rumination is happening.

For other children, caregivers can help by:

- Responding calmly when foods or liquids come back up.
- Limiting how often you ask your child about their symptoms to help take the focus off rumination.
- Reminding your child to take smaller bites, fully chew their food, and eat slowly.
- Helping your child to practice diaphragmatic breathing and other skills. For younger children, this may include using a reward chart to encourage them to practice.

#### **Your team is here to help!**

You and your family will work closely with your care team to make a treatment plan that is best for you. Your healthcare team may include medical providers, a psychologist, dietitian, and social worker. We will all work together so that rumination starts to get better.