

Grades K-5
Mini-Lesson: “Why do our stomachs growl?”

VIDEO TRANSCRIPT

VIDEO 1

Hey, it's Esther. Have you ever noticed your stomach making weird sounds like this? Or this. Bodies make all kinds of unexpected noises, but these can sound especially funny. When your stomach makes a loud growl, it can sound like a thunderstorm in your stomach or an angry leopard. Someone named Grey has a question about these noises. Let's give Grey a call now.

[Video Call]

- Hi, Esther.
- Hi, Grey.
- I have a question for you. Why do our stomachs growl?
- That's a great question.

You may already have an idea that stomach growls have something to do with eating food. How do you think food moves from your mouth, up here, to your stomach, which is over here?

VIDEO 2

Think about what it feels like to swallow a big bite of food or a big sip of water. Maybe you felt it moving downward from your mouth through your throat down toward your stomach. It feels like it's going through some kind of tube from one to the other, and that's exactly what it is. There's a tube that connects your mouth to your stomach, but it doesn't end at your stomach. After food

leaves your stomach, it continues into something called the intestines. Your intestines are a tube curled up inside your lower belly. Intestines are long. If you unwound an adult's intestines, they would be longer than some garden hoses. This tube and all its parts from your mouth downward is called your digestive system. Now, maybe you're thinking that your digestive system is like a slide. Food starts at your mouth, slides down into your stomach, then drops down into your intestines. But it's not that simple. Since this tube is curled and has a bunch of twists and turns, food can't just fall down on its own. If it worked like that, food would get stuck. It needs help to move where it needs to go. Think of it like getting toothpaste out of a tube. If you just turn the toothpaste upside down, it takes a long time for it to fall out. So to make it move faster, you squeeze. All along this tube, there are muscles from your mouth to your stomach to your intestines. All those muscles squeeze to move food down the tube. At any given moment in your day, there's a lot of stuff in your digestive system. Food you've eaten, stuff you've had to drink, plus air and other gases. When the muscles in your digestive system squeeze, all that stuff moves. And sometimes that makes a rumbling sound. That's what you're hearing when your stomach growls. It's your digestive system moving stuff around inside you. Okay, but why does it seem to happen more often when we're feeling hungry? Scientists think there's two main reasons we notice these gurgles and rumbles more when it's time for a snack. One, when you haven't eaten for a few hours, the muscle squeezes along the tube get more active. Why? Because your body is preparing for new food to enter the digestive system. Those extra squeezes help clear away old food, making space for new food to enter. The other reason has to do with sound. Stay with me. Imagine a pair of sneakers in an otherwise empty dryer. As they bump along, they make a lot of noise bouncing off the walls. But now imagine you throw in a whole bunch of towels. All the sounds get muffled. A similar thing is going on with your digestive system. When your stomach and the tubes around it are more empty, the sound of food and

gases moving through them are louder. So, in summary, the sound of your stomach growling is the sound of muscles squeezing food and other stuff down your digestive system from your mouth to your stomach to your intestines. It sounds louder when you're hungry because your muscles are squeezing more and the tubes are emptier. These gurgles may sound strange, but they are actually a sign that your body is working as it should. That's all for this week's question. Thanks for asking it, Grey.