

**Enrichment****LESSON 1**

## Hiccups

Your diaphragm suddenly contracts and pulls air into your lungs. Your larynx contracts, too, and your vocal cords slam shut. You don't speak a word. Instead, you . . . hiccup!

### What causes hiccups?

Hiccups are caused by several factors. Irritations to the stomach, the organs in the chest, or the diaphragm play a role. For example, suppose you ate a large meal. Your stomach expands. Gas in the stomach pushes up on the diaphragm. The diaphragm contracts, and the lungs suck in air. The hiccup occurs when the closing vocal cords abruptly stop the movement of air. Hiccups are also associated with swallowing too much air, eating too quickly, drinking too much alcohol, and emotional stress.

Hiccups can be caused by more complicated medical problems that affect the central nervous system or the kidneys, among other organs. Hiccups caused by these problems might last for weeks or even months. They can lead to weight loss, insomnia, and exhaustion.

Usually, however, hiccups are a minor problem. One erupts every few seconds;

then they disappear on their own, within a matter of minutes. They are commonly produced by babies and other young animals that eat too quickly or swallow too much air. Even fetuses in the womb hiccup, as shown in ultrasound images.

### Can hiccups be stopped?

You might have been told to hold your breath when you have hiccups. Maybe someone suggested breathing into a paper bag for a minute or two. Other remedies for hiccups include drinking a glass of cold water very quickly, swallowing a teaspoon of honey, or being startled.

Scientists theorize that these remedies often work because they distract the brain—basically, the brain turns its attention to other, more pressing matters, and the hiccups are forgotten. Holding your breath, for example, increases levels of carbon dioxide in the blood. The brain quickly shifts its focus and works to reduce the amount of carbon dioxide to normal levels.

If you would like to avoid hiccups in the first place, health experts recommend that you do not overeat. Eat and drink slowly, and chew your food carefully.

### Applying Critical-Thinking Skills

**Directions:** Respond to each statement.

1. **Compose** lyrics to a song that describes the causes and effects of hiccups.
2. **Critique** this statement: Increased levels of carbon dioxide in the blood stop hiccups.