



KidsHealth.org/classroom

Teacher's Guide

This guide includes:

- Standards
- Related Links
- Discussion Questions
- Activities for Students
- Reproducible Materials

Standards

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- Demonstrate the ability to access valid information and products and services to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to use decision-making skills to enhance health.
- Demonstrate the ability to use goal-setting skills to enhance health.
- Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Demonstrate the ability to advocate for personal, family, and community health.

National Health Education Standards:
www.cdc.gov/healthyschools/sher/standards/index.htm

Ever wonder how your body knows when it's time to grow? Or when it's time to stop growing? The endocrine system is the part of the body that helps control your growth, energy levels, and other things you never even have to think about. The activities will introduce your students to the endocrine system.

Related KidsHealth Links

Articles for Kids:

Glands

KidsHealth/en/kids/glands.html

Movie: The Endocrine System

KidsHealth.org/en/kids/esmovie.html

Your Endocrine System

KidsHealth.org/en/kids/endocrine.html

The Endocrine System

KidsHealth.org/en/kids/bfs-esactivity.html

Endocrine System Word Find

KidsHealth.org/en/kids/bfs-eswordsearch.html

Discussion Questions

Note: The following questions are written in language appropriate for sharing with your students.

- When you were a baby, how big were you? And how big are you now? And how big do you think you will be in 10 years? How do you think your body knows how and when it's time to grow and change?
- Your endocrine system does other important things like helping you to act quickly in times of danger. If a tiger showed up at your door, would you say "How are you?" No way! You'd run - and you'd have your endocrine system to thank. Can you think of a time when your endocrine system helped you jump into action? How did your body feel?



Activities for Students

Note: The following activities are written in language appropriate for sharing with your students.

The Great Gland Relay Game

Objectives:

Students will:

- Begin to understand the role of glands and hormones

Materials:

- About 15 tennis balls
- Bucket or basket

Class Time:

- 20 minutes

Activity:

The endocrine system controls lots of things about our bodies. It does this by having groups of cells called glands send out special messengers called hormones to your cells to tell your cells what to do. You might say that glands are the boss!

Today we're going to show how the endocrine system uses hormones to tell your bones to grow. I'm going to assign one student to play the role of a gland and one to play the role of a bone. [Note to instructor: Tell the bone student to crouch low to the ground, and then place a basket in front of him or her.] The rest of the students will stand, single-file, in a line between the two. These students will represent the bloodstream, whose job it is to carry the hormones - in this case, the tennis balls - from the gland to bone.

When the gland calls out, "Grow, bone!" he or she will send a hormone (ball) into the bloodstream. The hormone will get passed down the line until it reaches the bone, who will put it in the basket. For each ball that's put into the bone's basket, the bone will "grow" by standing up a little bit taller. When all the balls have been passed down, the bone is done growing. The gland and the hormones have done their job!

The gland we portrayed in this activity is called the pituitary gland. It is the gland that helps you grow. Draw and color a picture of the pituitary gland and where it is located in the body.

Extension:

Glands and hormones have to do some pretty good teamwork to get their jobs done. But what would happen if one of them didn't do their part? Let's find out. Repeat this activity showing what might happen if the gland "forgot" to send out the hormone. Or what if it sent out too much? Or what if it sent out just the right amount but the bone had no way to catch it? Whew. It's a good thing your body has a way of keeping everything working just right!



Endocrine System 3-2-1 Chart

Objectives:

Students will:

- Demonstrate a basic understanding of the endocrine system by creating a class 3-2-1 chart

Materials:

- Computer with Internet access
- “Endocrine System 3-2-1 Chart” handout, chart paper, markers

Class Time:

- 20 minutes

Activity:

Your endocrine system is busy all the time, helping your body grow, develop, stay alert, and make fuel for its cells. And the best part is, you don’t even need to think about it. The endocrine system does it all on its own.

Today we’re going to watch a movie about the endocrine system (KidsHealth.org/en/kids/esmovie.html). Then we’re going to create a class chart about we’ve learned. The chart will be called a 3-2-1 chart because it will contain:

- 3 things we learned about the endocrine system
- 2 things we think are interesting
- 1 thing we still want to know

[Note to instructor: Write the three bullet items on chart paper, with plenty of space between each item to write.] Afterward, we will research the answer to the question, the “1 thing we still want to know,” on the chart and share what we’ve learned.

Extension:

Repeat the 3-2-1 chart activity, each time for specific glands.

Reproducible Materials

Handout: Endocrine System 3-2-1 Chart

KidsHealth.org/classroom/prekto2/body/systems/endocrine_handout1.pdf

Quiz: Endocrine System

KidsHealth.org/classroom/prekto2/body/systems/endocrine_quiz.pdf

Answer Key: Endocrine System

KidsHealth.org/classroom/prekto2/body/systems/endocrine_quiz_answers.pdf



Name: _____

Date: _____

Endocrine System 3-2-1 Chart

[Note to instructor: Create a larger version of this on chart paper.]

3 Things We Learned

2 Things We Think Are Interesting

1 Thing We Still Want to Know



Name: _____

Date: _____

Quiz

Instructions: Answer each question (can be oral or written).

1. True or false: The endocrine system tells your cells when it's time to do important things, like grow.
2. Which one of these is a gland in your body?
 - a. brain
 - b. heart
 - c. thyroid
3. Glands in your endocrine system release this into your body:
 - a. water
 - b. fruit juice
 - c. hormones
4. True or false: When a person's pancreas doesn't make enough of the hormone insulin, he or she will catch the flu.
5. The pituitary gland, just beneath your brain, controls other glands in your body and helps you grow. The pituitary gland is the size of a:
 - a. pea
 - b. cucumber
 - c. watermelon



Quiz Answer Key

1. True or false: The endocrine system tells your cells when it's time to do important things, like grow.
2. Which one of these is a gland in your body?
 - a. brain
 - b. heart
 - c. thyroid
3. Glands in your endocrine system release this into your body:
 - a. water
 - b. fruit juice
 - c. hormones
4. True or false: When a person's pancreas doesn't make enough of the hormone insulin, he or she will catch the flu.
5. The pituitary gland, just beneath your brain, controls other glands in your body and helps you grow. The pituitary gland is the size of a:
 - a. pea
 - b. cucumber
 - c. watermelon