How does your body know when to grow? How does it know when it’s time to change from a kid into an adult? How does it keep your cells fueled with energy? The endocrine system handles all these things and much more! These and activities will introduce your students to the glands and hormones of the endocrine system.

Related KidsHealth Links

Articles for Kids:

- What Are Glands?

- Movie: The Endocrine System

- Your Endocrine System

- The Endocrine System Activity

- Endocrine System Word Find

- Endocrine System Online Quiz

Discussion Questions

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

1. What are some jobs of the endocrine system?

2. One of the jobs of the endocrine system is to give directions to your body about when to grow and develop. Can you think of some times during a person’s life when the body changes?

3. Glands and hormones make a great team. Describe how they work in the body.

4. The endocrine system is also involved in preparing your body for emergencies. Know that feeling you get when you’re scared or stressed? That’s called the “fight or flight” response and your hormones (specifically adrenaline) are what make it happen. Can you think of a time when adrenaline caused you to spring into action? How did your body feel?

5. What kinds of problems can occur with the endocrine system?
Activities for Students

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

Name That Gland

Objectives:
Students will:
• Learn the names and functions of the various glands of the endocrine system

Materials:
• Computer with Internet access
• “Name That Gland” handout
• Eight “Hello! My Name is ______” stickers (available at office supply stores)
• Printout of How the Body Works activity: The Endocrine System (KidsHealth.org/en/kids/bfs-esactivity.html; enlarge the images and cut them out, leaving them unlabeled)

Class Time:
• 40 minutes

Activity:
After reading the KidsHealth.org articles about the endocrine system and watching the accompanying movie, we’ll complete the Name That Gland handout independently using the words from the word bank.

[Note to instructor: As your students are working, place the gland cutouts you made from the printout on a table or desk, along with eight “Hello! My Name is ______” stickers. After students complete their handouts, select eight volunteers to stand in front of the class. Assign each student to represent a gland, making sure that students don’t reveal their identities to the rest of the class. One at a time, ask them to read their description from the “Name That Gland” handout and call on classmates to guess who they are. The first student to guess the gland’s name picks up a “Hello! My Name is ____” sticker, fills it in, and also selects the correct picture of the gland. The gland student wears the sticker and holds the cutout gland image. For brain glands you might want to show the whole brain with an arrow pointing to the correct gland; for the reproductive glands, you might want to show both the ovaries and testes at one time, as on the picture.]

Extension:
Gland Gratitude

Objectives:
Students will:
• Research and demonstrate why the endocrine system is important for good health

Materials:
• Computer with Internet access
• "Glandular Gratitude“ handout

Class Time:
• 30 minutes

Activity:
Being the endocrine system is a thankless job. When it works well, nobody even notices all the amazing things it does — from helping our bones grow, to coordinating the changes of puberty, to regulating our blood sugar, energy, and other cell functions. Frankly, the endocrine system is tired of feeling overworked and underappreciated. It could use a little love.

Today we’re going to show a little glandular gratitude by writing a thank-you note to our hardworking glands. Be sure to mention at least three glands specifically (as well as the hormones they produce) and the role they play in keeping you healthy.

Extension:
Imagine that your endocrine system felt so overworked and underappreciated that it decided to go on strike. Do you know what a strike is? It’s when workers refuse to do their jobs. Describe at least three health problems that might occur if your glands and hormones went on strike.

Reproducible Materials

Handout: Name That Gland
KidsHealth.org/classroom/3to5/body/systems/endocrine_handout1.pdf

Handout: Name That Gland Answer Key
KidsHealth.org/classroom/3to5/body/systems/endocrine_handout2.pdf

Handout: Glandular Gratitude
KidsHealth.org/classroom/3to5/body/systems/endocrine_handout3.pdf

Quiz: Endocrine System
KidsHealth.org/classroom/3to5/body/systems/endocrine_quiz.pdf

Answer Key: Endocrine System
KidsHealth.org/classroom/3to5/body/systems/endocrine_quiz_answers.pdf
Name That Gland

Instructions: Use the word bank to answer each question.

1. I live deep within the brain. I’m only about the size of a pea, but I’m very powerful. I make the hormones that help you grow, and I control the activity of other glands too. Who am I? ____________________________

2. I’m shaped like a bowtie or a butterfly. I’m found in your neck. I make the hormones that help you stay alert and full of energy. Who am I? ____________________________

3. I’m the largest gland in the body. I produce the hormone called insulin that helps glucose, the sugar in your blood, enter the cells of your body. I work closely with the digestive system. Who am I? ____________________________

4. We come in a pair, one on top of each kidney. We produce hormones that help you to act fast when you’re in trouble or under stress. We’re triangular in shape. Who are we? ____________________________

5. We are a set of four tiny glands that work with the thyroid to control the amount of calcium in the blood. Who are we? ____________________________

6. In girls, we’re the ovaries. In boys, we’re the testes. We’re involved in all the changes of puberty (when kids begin to become adults). Who are we? ____________________________

Word Bank

<table>
<thead>
<tr>
<th>Adrenal glands</th>
<th>Pituitary gland</th>
</tr>
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<tbody>
<tr>
<td>Pancreas</td>
<td>Reproductive glands</td>
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<tr>
<td>Parathyroids</td>
<td>Thyroid</td>
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Name That Gland Answer Key

1. I live deep within the brain. I’m only about the size of a pea, but I’m very powerful. I make the hormones that help you grow, and I control the activity of other glands too. Who am I? _________ Pituitary gland _________

2. I’m shaped like a bowtie or a butterfly. I’m found in your neck. I make the hormones that help you stay alert and full of energy. Who am I? _________ Thyroid _________

3. I’m the largest gland in the body. I produce the hormone called insulin that helps glucose, the sugar in your blood, enter the cells of your body. I work closely with the digestive system. Who am I? _________ Pancreas _________

4. We come in a pair, one on top of each kidney. We produce hormones that help you to act fast when you’re in trouble or under stress. We’re triangular in shape. Who are we? _________ Adrenal glands _________

5. We are a set of four tiny glands that work with the thyroid to control the amount of calcium in the blood. Who are we? _________ Parathyroids _________

6. In girls, we’re the ovaries. In boys, we’re the testes. We’re involved in all the changes of puberty (when kids begin to become adults). Who are we? _________ Reproductive glands _________

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Dear Endocrine System,

I just wanted to thank you for all you do and let you know that I think YOU ROCK! Here’s why:

[Blank lines]

Your appreciative friend,
Quiz

Instructions: Answer each question using a word from the word bank. Then, for extra credit, unscramble the highlighted letters to reveal the hidden word!

1. The endocrine system has eight ___ __ __ __.

2. ____ ____ ____ ____ are chemical messengers produced by the glands.

3. The hormone ____ ____ ____ ____ ____ is responsible for the fight or flight response.

4. ____ ____ ____ ____ is the hormone that helps control your blood sugar levels.

5. The ____ ____ ____ ____ gland is shaped like a butterfly.

6. FREEBIE! The ___ ___ ___ gland helps make melatonin.

7. The four glands that help control the calcium levels in your blood are called the ____ ____ ____ ____ glands.

8. When the pancreas doesn’t produce insulin, the result is a disease called ____ ____ ____ ____.

9. When it’s time for boys and girls to begin ____ ____ ____ ____, the pituitary gland gets the ball rolling.

10. A doctor who specializes in treating people with hormone problems is called an ____ ____ ____ ____ ____. _____

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<tr>
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<td>endocrinologist</td>
<td>insulin</td>
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Extra credit:

Highlighted letters: ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

Unscrambled word: ____ ____ ____ ____ ____ ____ ____ ____ ____
Quiz Answer Key

1. The endocrine system has eight **glands**.

2. **Hormones** are chemical messengers produced by the glands.

3. The hormone **adrenaline** is responsible for the fight or flight response.

4. **Insulin** is the hormone that helps control your blood sugar levels.

5. The **thyroid gland** is shaped like a butterfly.

6. FREEBIE! The **pineal gland** helps make melatonin.

7. The four glands that help control the calcium levels in your blood are called the **parathyroid glands**.

8. When the pancreas doesn’t produce insulin, the result is a disease called **diabetes**.

9. When it’s time for boys and girls to begin **puberty**, the pituitary gland gets the ball rolling.

10. A doctor who specializes in treating people with hormone problems is called an **endocrinologist**.

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Extra credit:

Highlighted letters: a h m a s y p h o t u l

Unscrambled word: h y p o t h a l a m u s