

You Are Amazing: You Are Human!



- 1 Did you know that your small intestine is nearly six meters long? Or that there are about 60 muscles in your face, and you use 40 of them to frown¹ but only 20 to smile? How about the fact that our bodies **consist of** 73 percent water, and that our hearts beat over 100,000 times each day? You really are amazing!
- 2 The human body is a **complex** machine.
From the day we are born, our bodies grow and change in response to our environment, diet, and habits. The body has many different **organ**² systems and parts that work together to allow us to **breathe**, move, see, talk, and **digest**³ food all at the same time. Most of the time we are unaware of what is happening in our bodies; usually it is only when we get sick or feel pain that we notice.
- 3 Many people do not take care of their complex machines. Bad habits like smoking, drinking too much alcohol, and eating junk food damage our bodies. Stress can also cause health problems. People who worry a lot or have busy jobs often don't get enough sleep, or don't eat properly. We also can damage our bodies when we play sports or get into accidents. Studies done by the Australian government show that most people get hurt because of an accidental slip or fall, or because of **injuries** from car accidents. It's true that a lot of people go to hospital because of serious **illnesses**, but far more people end up there because they simply weren't being careful.
- 4 Like machines, different body parts sometimes wear down from old age. People over the age of 65 are more likely to fall and hurt themselves, and these injuries—from bad cuts to broken bones—usually require serious medical attention. Due to the increase in the population of elderly people, gerontology is now one of the fastest growing areas of medicine. There are many **treatments** available to help older people recover from illness and injury. It is now common for older people with damaged joints, for example, to have **surgery** to replace the old joint with a new one made of plastic or metal.
Instead of **suffering** aches and pains through their retirement days, older people are able to lead happier and more comfortable lives.
- 5 As with any machine, the better you take care of it, the longer it will last. The best way to take care of your amazing machine is to eat the right foods, do regular exercise, and get enough sleep. Oh, and don't forget to smile!

¹ When you **frown**, you make an angry or unhappy expression with your face.

² An **organ** is a part of your body that has a special function, such as your heart or lungs.

³ Your stomach **digests** food by breaking it down and taking what it needs for your body.

Reading Comprehension

Check Your Understanding

A Choose the correct answers for the following questions.

- 1 The writer lists facts about our body in paragraph 1 to _____.
 - a show us how amazing our bodies are
 - b test our knowledge about the body
 - c remind us to take care of our body
- 2 Why does the writer say that we are *unaware of what is happening in our bodies* (line 13)?
 - a We still don't know much about how our bodies work.
 - b Our body works so smoothly that we don't notice it.
 - c We don't really care about what happens in our body.
- 3 Doctors who study gerontology focus on _____.
 - a doing research on the population of elderly people
 - b creating technology for bones and joints
 - c improving the health of older people

B **Circle** the correct answer to complete each sentence.

According to the passage . . .

- 1 Most people know (a lot / very little) about their bodies.
- 2 Most visits to the hospital are caused by (bad habits / accidents).
- 3 Our body is compared to a machine because it (is expensive to fix / has many complicated parts).
- 4 (Children / Old people) have the most accidents and health emergencies.

Critical Thinking

Vocabulary Comprehension

Words in Context

A Choose the best answer. The words in blue are from the passage.

6 Which is an example of an injury from a car accident?
 a broken glass b a broken leg

7 Which machine is more complex?
 a a computer b a coffee maker

8 One treatment for a headache is _____.
 a resting b listening to loud music

B Answer the following questions, then discuss your answers with a partner. The words in blue are from the passage.

- 1 Name a serious illness. What does it do to the body?
- 2 How long can you hold your breath?
- 3 What was the worst injury you've ever had? How did it happen?
- 4 Suggest a treatment for a stomachache.

A Using a dictionary, match each root word with its meaning in the chart. Then combine the root word with the suffix *-logy/-ology* to complete the definitions.

Root Words	Meaning
bio •	• sound
psych •	• culture
phon •	• life
physio •	• nature / body
geo •	• mind
socio •	• earth

- 1 _____: the study of life
- 2 _____: the study of the mind
- 3 _____: the study of the earth
- 4 _____: the study of speech sounds
- 5 _____: the study of the body
- 6 _____: the study of culture

B Complete the following letter using words from A.

Dear Aunt Marie,

How are you? My first year at the university is almost over and I haven't chosen my major yet! Mom wants me to be a doctor, so this semester, I took a (1) _____ class called "Introduction to Life Science" and a (2) _____ class called "The Human Mind." I didn't do very well, though, so maybe medicine isn't for me! I really enjoy reading *National Geographic* and learning about volcanoes and earthquakes, so maybe I'll take a (3) _____ class next year. I'm coming home in three weeks—can't wait to see you!

Love, Judy

Vocabulary Skill

Nouns Ending in
-logy/-ology

Learning the meanings of root words and suffixes can help you increase your vocabulary. In this chapter, you saw the word *gerontology*. The word is made up of the root word *geronto*, which means *old person*, and the suffix *-logy*, which means *the study of*.

Motivational Tip: Set high expectations! Why are you studying English? Why is reading an important part of learning English? Five years from now, what do you hope to be doing in English? These questions can help you set higher expectations, or goals, for yourself.

Seeing with the Ears

The human body is an amazing thing. People can train themselves to achieve unbelievable feats, from setting Olympic records to finding ways to **overcome** physical disabilities.¹ Ben

5 Underwood is a great example of someone who trained his body to do something incredible.

At the age of three, Ben went **blind** from retinal cancer, a type of eye cancer. When Ben
10 was about five years old, his mother noticed him making a clicking sound with his tongue that seemed to help him understand his surroundings. This skill, known as echolocation, is normally used by animals with very **sensitive** hearing, like dolphins and bats, for communication and to find food. They
15 make sounds and listen for the echo made when the sound waves hit an object and **bounce** back. Doctors tested Ben's hearing ability, but found it was normal. If Ben did not have superior hearing, how was he able to use echolocation?

Doctors used to believe blind people developed a sharper sense of hearing to help them overcome their loss of **sight**. Doctors did tests to try to confirm this, but just like in Ben's
20 case, the research showed that the test subjects generally had normal human hearing. It was through brain scans that doctors began to understand the **phenomenon** of echolocation. The scans show that when a blind person hears an echo, the parts of the brain that are related to vision are stimulated.

So even though blind people can't see with their eyes, their brains are able to determine
25 the shape and size of nearby objects. They move around an object, clicking and listening, to better understand its shape. This **refines** the picture of the object in their minds. In this way, blind people come to "see" their environment.

By the time he was a teenager, Ben Underwood could safely ride a bike and skateboard around his neighborhood using echolocation. Of course, it took Ben years of training
30 his mind and his senses to overcome his lack of sight. Sadly, Ben passed away in 2009 at the age of 16, but he remains a shining example of people are **capable** of if they are determined enough.



¹ A **disability** is a permanent injury or illness that affects the way someone can live their life.

Reading Comprehension

Check Your Understanding

A Read the following sentences. Check (✓) true (T) or false (F).

	T	F
1 Ben was never able to see.		
2 Dolphins and bats make clicking sounds to know where to go.		
3 Doctors found that Ben had average hearing ability.		
4 Ben tried hard, but he was unable to ride a bike.		
5 A human brain can learn to analyze an echo.		

B Complete the following paragraph using words or phrases from the passage.

The human body really is amazing. (1) _____ was a teenager who showed us how people with (2) _____ can (3) _____. He went blind at a young age after getting (4) _____, yet he found a way to "see" his surroundings by making (5) _____. This is a skill called (6) _____ which is also used by dolphins and bats. Doctors once believed blind people developed (7) _____ to get around, which was proven to be untrue. Now they have learned using (8) _____ that the part of the brain that controls (9) _____ is stimulated when a blind person hears echoes. For Ben, learning to "see" took a long time, but it enabled him to cycle and (10) _____ around his neighborhood.

Critical Thinking

C Discuss the following questions with a partner.

- 1 What is the author's opinion about Ben Underwood? Give examples from the passage to support your answer.
- 2 How would learning how to use echolocation benefit a person who can see?

Vocabulary Comprehension

Definitions

A Match each word with its definition. The words in blue are from the passage.

1	_____	overcome	a	unable to see
2	_____	blind	b	a special or remarkable thing
3	_____	sensitive	c	to make better
4	_____	bounce	d	to hit an object and come back
5	_____	sight	e	easily affected
6	_____	phenomenon	f	able to do something
7	_____	refine	g	the ability to see
8	_____	capable	h	to succeed in dealing with a problem or difficulty

B Complete the following sentences with the correct form of the words from **A**.

- 1 You'll definitely be a better tennis player if you _____ your technique.
- 2 After weeks of practicing with friends, Kathy _____ her fear of speaking in front of a group.
- 3 Eagles use their powerful sense of _____ to find and catch prey.
- 4 Guide dogs are trained to lead _____ people around.
- 5 Marta wears sunglasses because her eyes are very _____ to light.
- 6 Lightning is a natural _____ that still cannot be fully explained.
- 7 This car is _____ of speeds of up to 200 kilometers an hour.
- 8 Can you please stop _____ the ball? The sound is really annoying.

A Look at the words below and complete the chart with the correct nouns. Use your dictionary if you need to.

Adjective/Verb	Noun
1 determined	<u>determination</u>
2 admire	_____
3 inspire	_____
4 compete	_____
5 distinct	_____
6 satisfy	_____

B Complete the paragraph below with the correct nouns from **A**.

You might not have heard of Roger Bannister, but he has the (1) _____ of being the first person to run a mile (1.6 km) in under four minutes. He achieved this feat in 1954, during a (2) _____ between his running group and a team from Oxford University. At that time, people felt the "four minute barrier" could not be broken, and might even be physically dangerous. But Roger did not believe this, and trained with (3) _____ to achieve his goal. He finally ran a mile in 3 minutes and 59.4 seconds, earning the (4) _____ of runners worldwide. Roger later said that no matter how fast he got, he would only get (5) _____ from breaking the four-minute record. Even though the "four minute barrier" has been broken many times since, Roger's story still provides (6) _____ for athletes looking to run faster and better.

Vocabulary Skill

The Suffix *-ion*

In this chapter, you saw the noun *communication*. Many common nouns in English are formed by adding the suffix *-ion* to an adjective or verb.