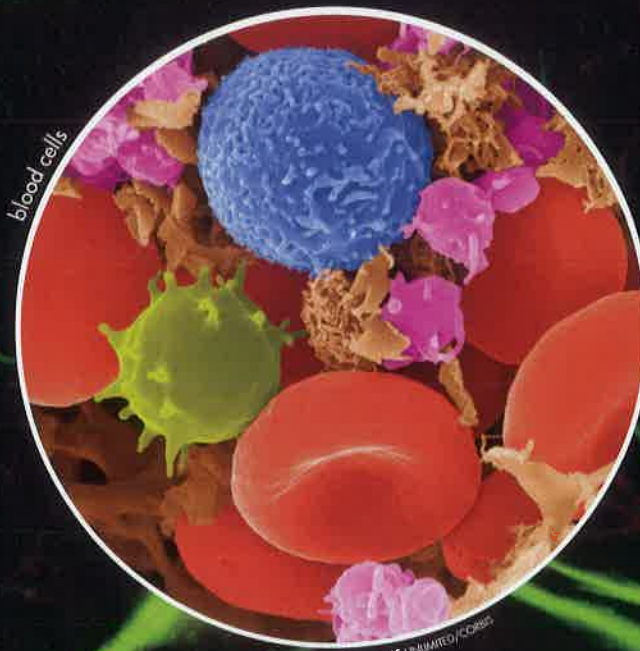


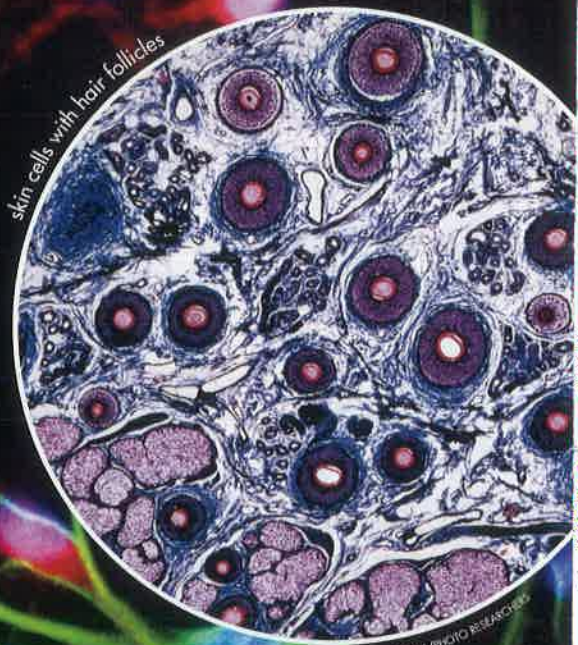
Reading Strategy: As you read this story, use the author's words to picture what the inside of your body looks like.

BODY WORK



blood cells

© VISUALS UNLIMITED/CORBIS



skin cells with hair follicles

ALFRED BASKA/PHOTO RESEARCHERS

Can you guess what each picture shows? Here's a hint: It's wild. It's wonderful. And it's all inside your body! Find out what makes your body work.

By Terri L. Jones

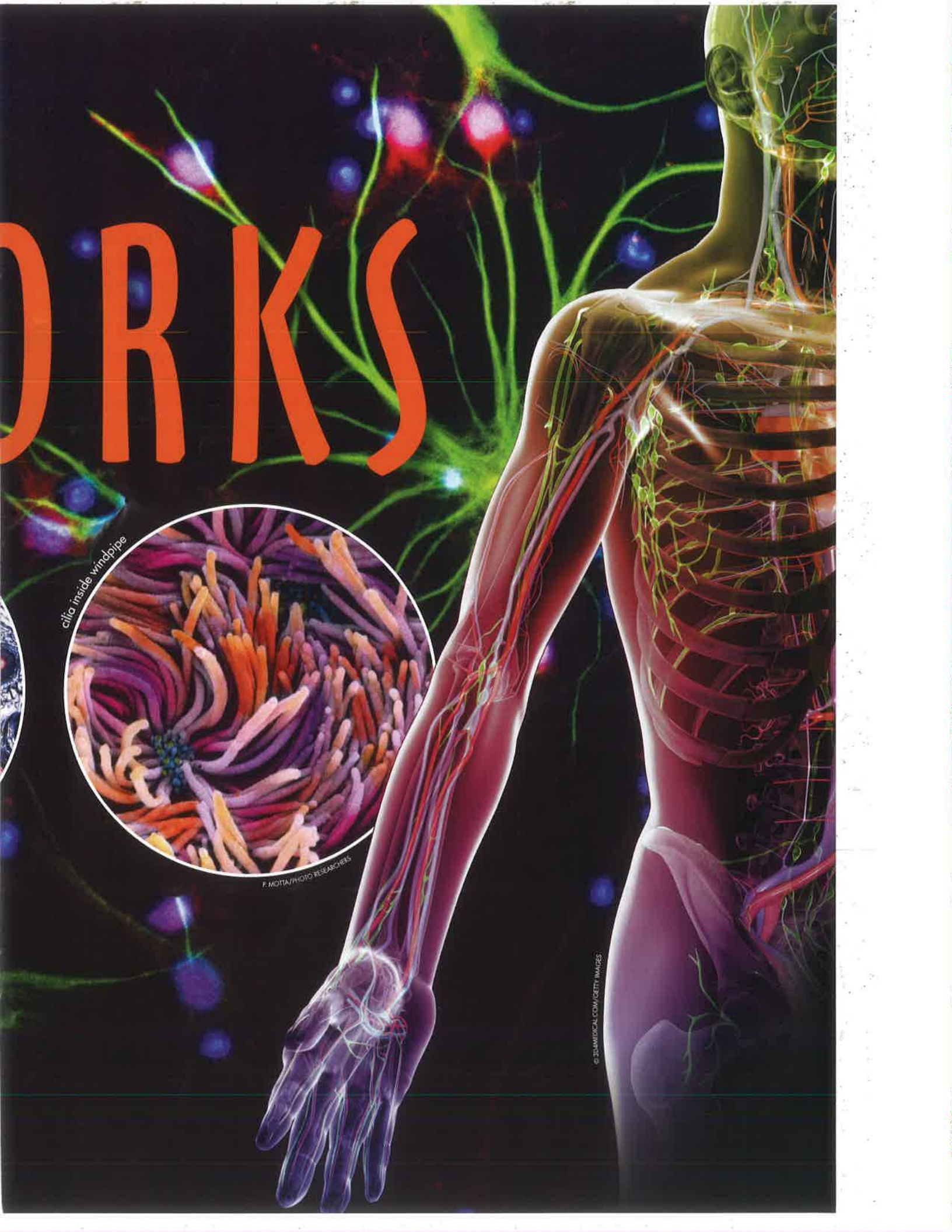
ORKS

cilia inside windpipe



F. NOTTA/PHOTO RESEARCHERS

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You're on the soccer field. You run! You kick! You score! But if you think all the action is on the field, think again. Journey deep inside your body to meet the real stars of the game.

That's where all your body parts are hard at work. Warning: Don't freak out! You'll see some pretty wild things on your trip. From the inside, some body parts look like aliens from another planet. Others look like crazy geometric designs. Still others look like a scene straight out of a video game.

Each body part, or **organ**, has its own special job. Each has its own special place in your body. (Check out the cool body diagrams on p. 23.) Together, these parts team up to make your body work. Now, let's go back to your soccer game and see all these parts in action!

Eye Spy

The score is tied 2–2. Just five minutes remain in the game. Your team has to score—and score fast—to win. Your teammate kicks the ball to you. Players on the other team run full speed toward you. Uh-oh. They want the ball, too!

“Keep your eye on the ball!” the coach yells.

You stop looking at the other players and focus on the black-and-white ball spinning across the grass. Rays of light from the scene zoom into your eye. They race to your retina, a part of your eye all the way in the back of your eyeball. Inside your retina, body parts called rods capture the black-and-white images. Cones sort out the colors. The rods and cones put together a picture. It's upside down!

A different body part flips the picture over. It's not just your eyes at work here. Your brain helps you see, too. Your brain makes the upside-down picture of the game look right. Phew! Now you don't have to stand on your head to play soccer!

Brain Power

Your brain is your body's computer. It has an important job. First, it collects information. The information comes from all your **senses**: what you see, hear, feel, taste, and smell.

Then, your brain uses that information to send messages to other body parts. The messages are carried by **nerves**. They are the wiring that connects your brain to every single body part, from your eyes down to your toes.

Let's go back to the soccer field. The ball is coming! That information races from your eyes' optic nerve to your brain. Kick it! That message races from your brain to your foot. In the blink of an eye, you're dribbling the ball down the field.

Catching Air

Suddenly, you feel out of breath. Are you running out of air? No. You're actually getting extra air.

When you veg out, you breathe in 8 liters (2 gallons) of air each minute. As you race down the field, your body needs up to 190 liters (50 gallons) of air a minute! That makes your lungs work extra hard.

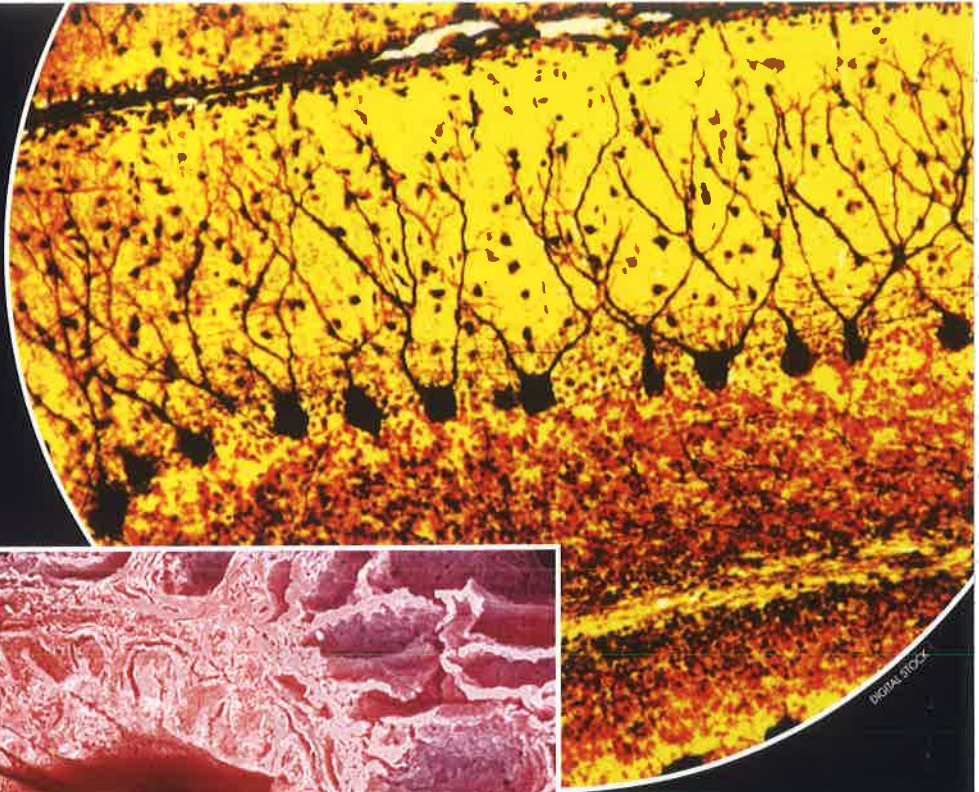
What's so special about air? It's got the fuel your body needs to help you speed down the field. That fuel is oxygen. Air is filled with this invisible gas. It flows through your nose and down your windpipe, or trachea. Luckily, little hairs called cilia catch the dirt and germs before the air gets to its next stop: your lungs.

Your lungs are one of the biggest organs in your body. The bronchioles, or oxygen passageways inside your lungs, look like upside-down trees. Oxygen races down to the tiny branches at the very tip of the tree. The branches end with 300 million tiny sacs called alveoli. There, the oxygen hitches a ride on a different part of your body: your blood.

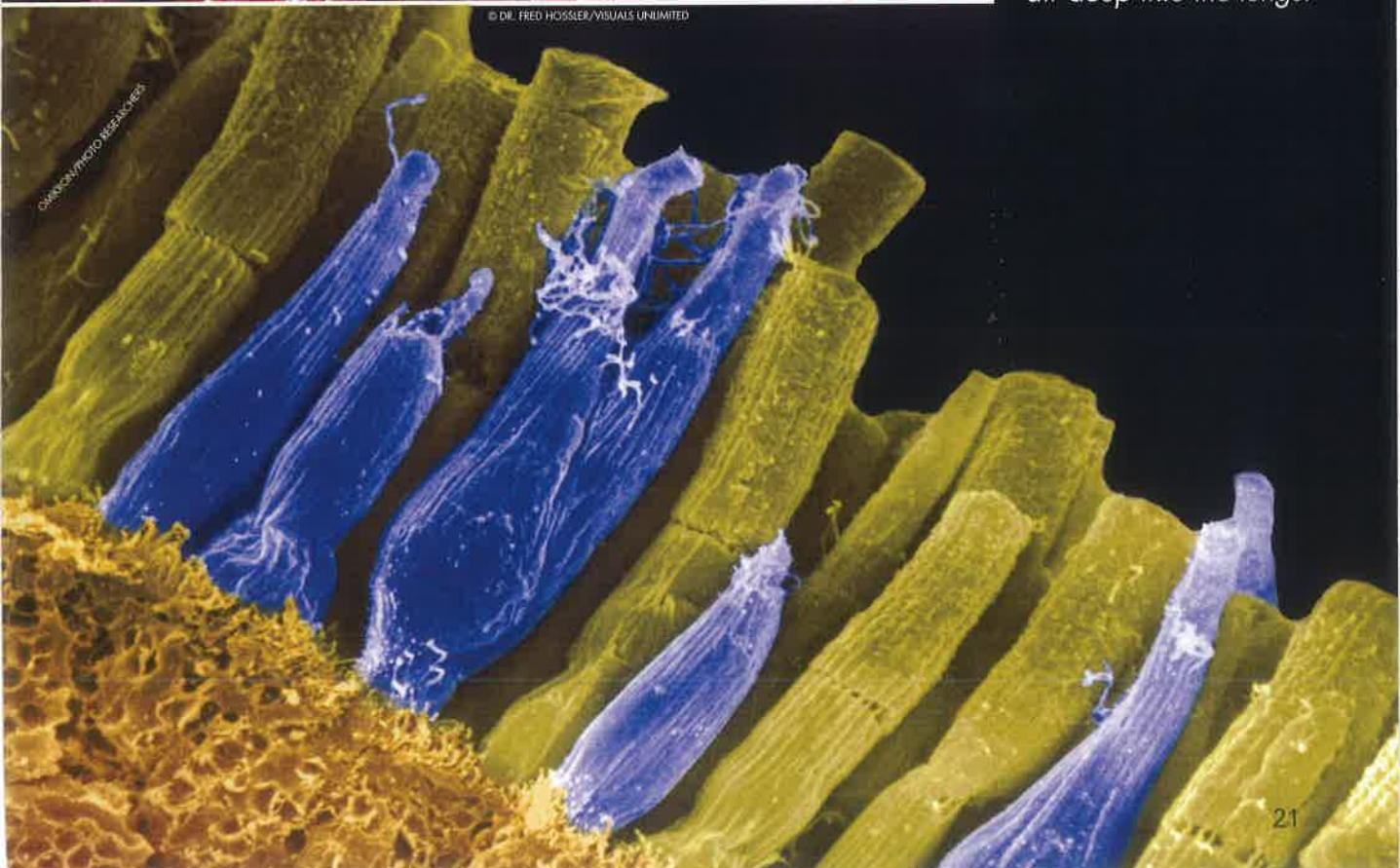


Eye on the Ball. Rods (in green) help you see black and white. Cones (in blue) help you see colors.

Look, Think, and Kick!
These black squiggles are
nerve cells in the brain.



Breathe Deep. Passages
called bronchioles take
air deep into the lungs.





Life Blood. *These blood cells are magnified to 2,500 times their actual size.*

Oxygen Delivery Service

Back on the field, you feel your heart thumping in your chest. That's a good thing! With every thump, your heart pumps blood to all your body parts.

Your blood is like a fleet of delivery trucks. It travels inside **blood vessels**. Blood vessels called arteries and capillaries bring oxygen to every part of your body, including the muscles you need to run down the field. Your body uses the oxygen to make energy. When that happens, it makes something else, too: waste.

That waste is called carbon dioxide. Like oxygen, carbon dioxide is a gas. Unlike oxygen, if all that carbon dioxide stayed in your body, it would poison you! Your blood carries the carbon dioxide back to the lungs. This time, it travels through blood vessels called veins. You breathe out. Out goes the carbon dioxide.

Winning Ways

You suddenly realize you're really close to the goal. At that split second, your brain tells the muscles in your leg to contract, or tighten. The muscles pull back your thighbone, or femur. It's the biggest and strongest bone of the more than 200 bones in your body.

Your femur can't do the job alone. The muscles also pull back the two bones in your lower leg and the 26 tiny bones in your foot. You're feeling confident. All those bones and muscles swing forward. Wham! You kick the ball as hard as you can.

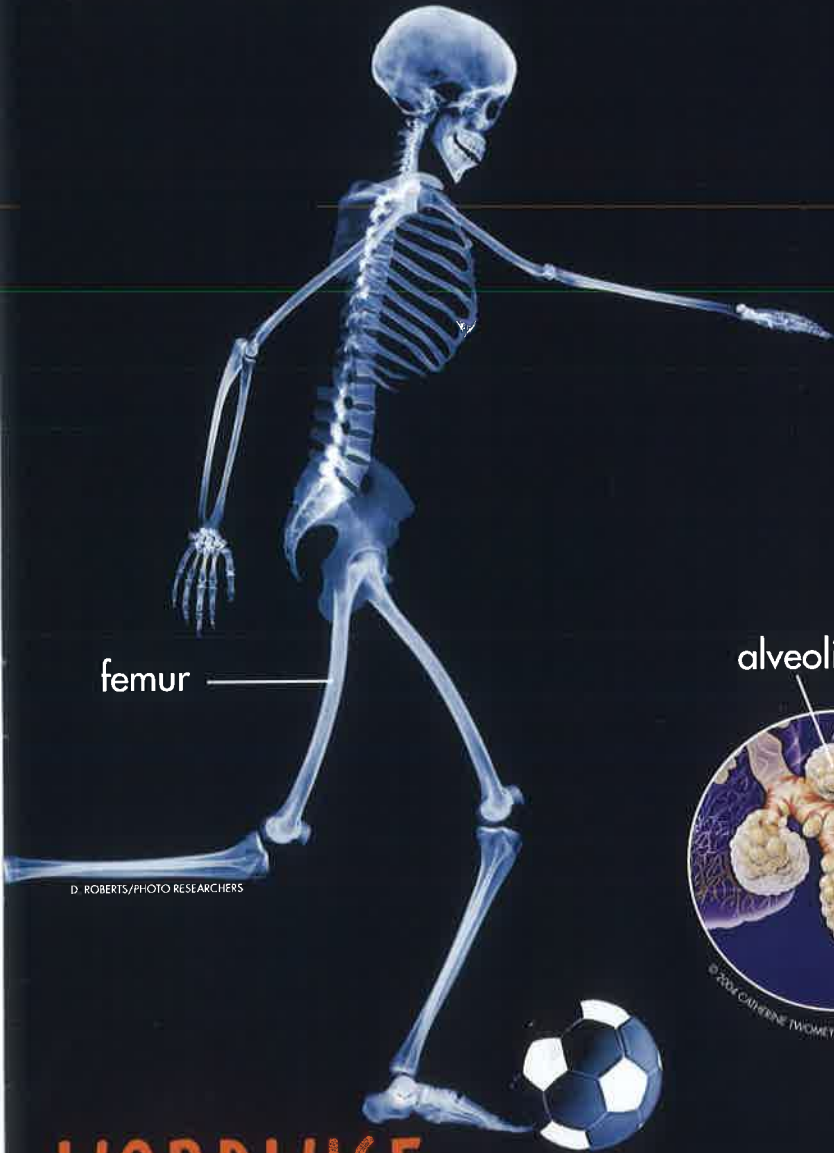
You watch as the goalie on the other team jumps toward the ball. The goalie misses. The ball rolls into the goal. Score! Your team wins the game.

Your teammates give you a high five. Your brain sends a "happy" message to the muscles in your face. These muscles work together to pull up the corners of your mouth into a big smile. It's time to celebrate. From the inside out, you and your team of body parts are the heroes of the game.

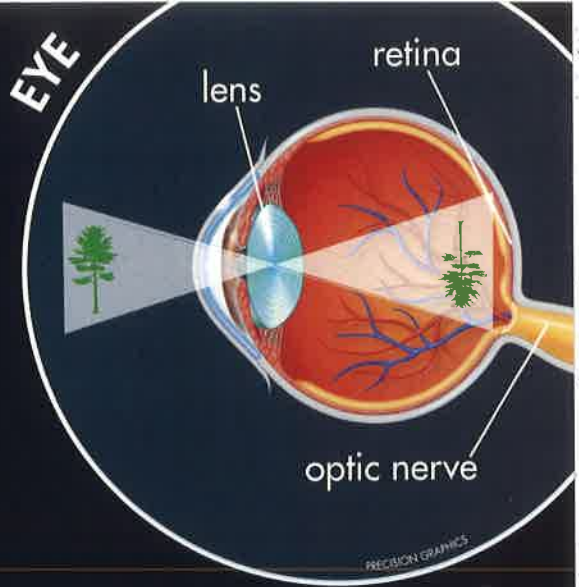
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Body Basics

Use these diagrams to help you picture how your body parts work.



D. ROBERTS/PHOTO RESEARCHERS



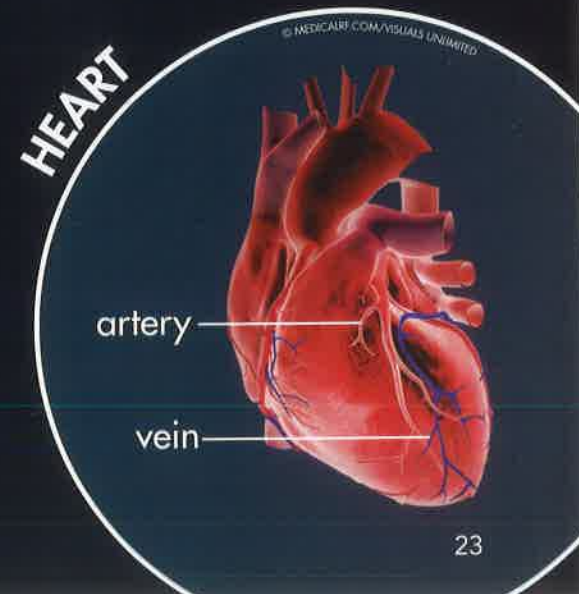
WORDWISE

blood vessel: tube in your body that carries blood, such as a vein or artery

nerve: wiring that sends messages between your brain and every body part

organ: body part with a specific purpose

sense: ability, such as sight, that helps you understand your surroundings



ISMAEL MONTEIRO VERDUGO/SHUTTERSTOCK



Coming in April

Butterflies: You may think they're beautiful. But did you know that butterflies also play an important role in nature? Get all the facts.

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Invasive Species: See what happens when fish, bugs, and toads wind up in places they don't belong.

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Cover: A leaf-tailed gecko uses its tongue to clean dust from its eyes.

(Photo © Kitchin & Hurst/Leeson Photo)

