TIME FOR KIDS

STRANGE BUT TRUE

Gross Anatomy



Timothy J. Bradley

For teachers' inspection ONLY

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Publishing Credits

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Teacher Created Materials
5301 Oceanus Drive
Huntington Beach, CA 92649-1030
http://www.tcmpub.com

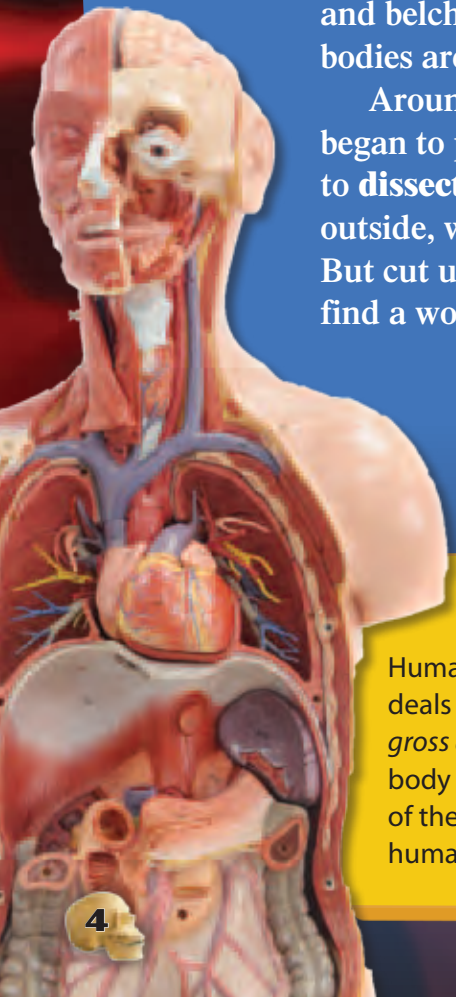
ISBN 978-1-4333-4860-0

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Bizarre Biology

There's a lot more than just blood and guts inside the human body. There's gas, earwax, vomit, scabs, pus, boogers, and belches, too! From head to toe, our bodies are amazing—and gross!

Around 2,000 years ago, scientists began to peek inside. They began to **dissect** human bodies. From the outside, we may look pretty boring. But cut us open, and inside you'll find a world stranger than any planet.



Anatomy 101

Human anatomy is the part of science that deals with our body's structure. The words *gross anatomy* don't refer to parts of the body that are gross. They refer to parts of the body that can be studied with the human eye—no microscope required!

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1. What lies below our skin?
2. How do the different parts of the body work together?
3. How would our lives change if our bodies were different?



Bones and Muscles

What would happen if your bones and muscles suddenly disappeared? You would flop to the ground, unable to move or function. You would be a puddle of skin, blood, and guts. The only good news is you wouldn't be able to live very long in this state.

All animals need a stable frame to move around. The **organs** inside our bodies need to be protected. Fish, amphibians, birds, and mammals all have an internal skeleton. The skeleton supports the organs and protects the brain. The human skeleton is made of bone. A strong internal skeleton supports the body. It lets us do things like ride skateboards and climb trees.



Muscles and bones work together to support the body.



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Boneheads

Every baby is born with a soft spot at the top of his or her head. This is where the bones in the skull haven't grown together yet. In the past, people tried to flatten children's skulls by pressing their skulls gently against a board. Bad idea!

Smooth Moves

Babies are born with over 250 bones. Over time, some of the bones fuse together. Adults only have 206 bones in their bodies.

No bones about it. Our skeletons hold us together. When you think of bones, you may picture the dry, hard bones you see in a museum. But our bones are alive. They grow and change just like the rest of the body. If a bone is broken, the body is able to repair it. New bone joins the broken ends, and the repaired bone may be as strong as it was before.

Bone is made of **calcium** and other elements. Calcium is very strong. **Ligaments** and **tendons** hold the bones together. Joints are formed where the bones meet. The elbow is one of the most used joints in the body. To keep the bones from rubbing against each other, pads of **cartilage** (KAR-tl-ij) cushion the joints. Throughout the day, cartilage shrinks. That's why we're taller in the morning and shorter at night!



Foot Binding

For generations, many Chinese girls had their feet bound. Their toes were broken, tucked under, and then bandaged. Repeated bindings prevented the feet from growing to full size. Women with these tiny feet were admired. Some wore shoes as small as three inches. Today, foot binding is illegal.



Beautiful Bones

The Padaung people in Thailand are famous for their long necks. Padaung women wear metal rings on their necks. Over time, these rings push down the collarbone and rib bones in the chest. This gives the illusion of a very long neck, which is believed to be beautiful.

