

The Skin and Touch



Your sense of touch can identify different kinds of surfaces.

Your largest sense organ is your skin. The skin has many different layers. In the layers are sensory nerves. The nerves send messages to your brain about your sense of touch. Feel the top of your desk with the tip of your finger. Is the desk rough or smooth? Your brain gets a message when you touch something so you know how it feels.

There are more nerves for touch in your fingertips than in any other part of your body. Why would you need more nerves in your fingertips?

Nerves for touch are near the top of the skin. However, there are other nerves in deeper layers of the skin. Some of these nerves react to pressure. Push your hand against the edge of your desk. Feel the pressure in your hand. Other nerves react to heat and cold. Still others react to pain.

What happens if your hand touches a hot pan? Sensory nerves react to the heat. They send a message to the spinal cord. The spinal cord sends a message to the muscles of your arm. You pull your hand away from the heat. If you could not feel heat or pain, you could get easily burned or injured. The nerves of the skin protect you from this kind of injury.

Remember that the nerves of the skin send messages to the brain. The brain knows which nerve each kind of message comes from. So the brain knows the difference between a message for pain and one for touch.

A. Answer True or False.

1. There are many sensory nerves in the layers of the skin. _____
2. The fingertips have no sensory nerves for touch. _____
3. Sensory nerves in the skin cannot tell the difference between things that are rough and smooth. _____
4. Without the nerves of the skin, you might get injured. _____

B. Read each statement. Write yes in front of the things that the nerves in your skin can do. Write no in front of the things the nerves in your skin cannot do.

- _____ 1. They can tell the difference between rough and smooth.
- _____ 2. They can identify smells.
- _____ 3. They can understand sounds.
- _____ 4. They can react to pressure.
- _____ 5. They can react to pain.
- _____ 6. They can taste different foods.
- _____ 7. They can react to heat.
- _____ 8. They can react to cold.

C. Answer the questions.

1. What are three things that nerves in the skin react to? _____

2. What might happen to a person who did not have sensory nerves that react to heat? _____
3. How does the brain know the difference between pain and touch?

