

## Read the passage and answer the following questions

It might surprise you to know that anesthesia, the medical treatment that prevents patients from feeling pain during surgery, is a relatively modern discovery. “General anesthesia - it changed medicine practically overnight” says Dr. Emery Brown, professor of anesthesia at Harvard Medical School. Life saving procedures such as open heart surgery and organ transplantation would be impossible without anesthesia.

Patients remain conscious when receiving an injection of either local anesthesia, which numbs a small area like the tooth, or regional anesthesia, which numbs a larger area like the knee. In contrast, general anesthesia puts patients into an unconscious state, enabling procedures like heart surgery. Additionally, recent research shows that managing pain due to anesthesia blocking pain signals actually reduces pain after the surgery.

As recently as 175 years ago, surgery was not a practical option for many diseases and medical issues. It was simply rare, dangerous, and the last resort before death. Imagine a patient dying of appendicitis because surgery was basically impossible. The discovery of general anesthetics has changed our lives in a way that is difficult for us to imagine today.

To me, it still feels mysterious and amazing that we have these receptors somewhere inside of us that pick anesthetizing compounds, allowing us to have surgery unconscious and painless. Anesthetics block nerve signals from reaching the brain, preventing pain. When the surgery is over, voila! We're conscious again with no memory of the procedure.

Although anesthesia was introduced to medicine more than 160 y ago, our understanding of how it works still remains a mystery. But, there is so much that we still do not know. What is consciousness? How do we experience pain via our neural pathways? Scientists don't know exactly how all types of anesthetics work, but they do know that some anesthetics block pain by altering neurotransmitter release. Modern scientists worldwide are still working actively on these cutting-edge questions to answer through medical research.

### Question 1:

What is the author's opinion about general anesthesia?

- A. General anesthesia is helpful in tooth surgeries.

- B. General anesthesia has always been there but only recently it has been used in medicine for complex procedures like open heart surgeries.
- C. The discovery of general anesthesia has been a game changer in medicine as it helps people undergo complex surgeries without pain and memory of it.
- D. General anesthesia has been very effective in blocking pain after the surgery but its effectiveness during the procedure is still questionable.

**Question 2:**

What can be inferred from the passage about the author's opinion on the mystery around the functioning of anesthesia?

- A. Anesthesia works as a mystery to the receiver or the patient because of the patient losing consciousness during the process.
- B. The author is amazed at the working of anesthesia in that there are these receptors inside our body that pick these anesthetizing compounds and make us have a surgery painless or unconscious.
- C. The author understands the mystery of the working of pain receptors when we're conscious and unconscious is now clear in science.
- D. Anesthesia was available in the yester years of the 19th century but it was too dangerous to be used.

**Question 3:**

What is the main purpose of the last paragraph of the passage?

- A. that we don't know how local and general anesthesia works on the human body.
- B. that how much of the dosage of anesthesia to be given to a patient is still a guesswork and hunch driven by experience.
- C. that consciousness is the key to learn completely about anesthesia and the workings of consciousness are still unknown to modern scientists.
- D. that we still cannot completely explain the workings of all types of anesthesia, even though we know that anesthesia works by blocking pain signals and altering neurotransmitters.

Answers:

D ,B ,C : redro esrever eht ni nevig era srewnA

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