

SC.912.L.14.3 – Cell Structure – Example 7 Answer

A person with swollen gums rinses his mouth with warm salt water, and the swelling decreases. Which of the following has occurred?

- A. The swollen gums have absorbed the saltwater solution.**
- B. The saltwater solution lowers the temperature of the water in the gums.**
- C. The salt in the solution has moved against the concentration gradient.**
- D. The water in the gums has moved out due to the high concentration of salt in the solution.**

Answer

D. The water in the gums has moved out due to the high concentration of salt in the solution.

The salt water solution is hypertonic to the cells of the gums. It contains a higher concentration of solute (salt) and a lower concentration of water. Water from inside the cells of the gums moves down the concentration gradient and out of the cells.