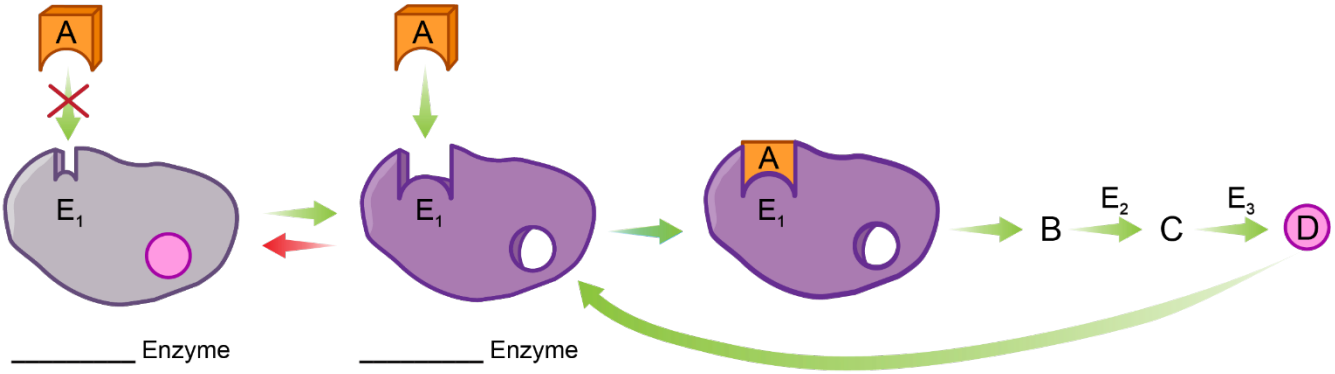
CONCEPT: ENZYME REGULATION: FEEDBACK CONTROL

- A metabolic pathway is a _____ of biochemical reactions taking place within a cell.
- In feedback control, the end-product of a pathway acts as an on-off switch for the enzyme in the _____ step.
  - □ The end-product is a _____ allosteric regulator of the enzyme in the first step.



EXAMPLE: Which of the following statements cannot be true about feedback control?

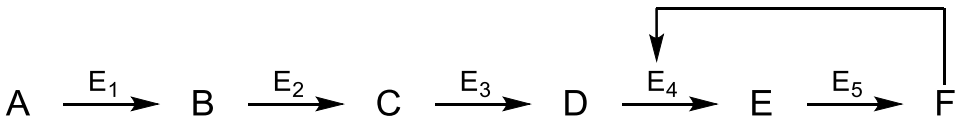
a) Regulation is achieved by negative allosteric control of an enzyme in the first step.

b) The end-product affects its own production.

c) The end-product binds irreversibly to the enzyme in the first step.

d) Feedback control can help to save energy of the cell by shutting down an entire pathway.

PRACTICE: Is the following diagram a correct illustration of feedback control?



a) Yes

b) No