

Study Guide 28.3: Interactions Among Systems

KEY CONCEPT

Systems interact to maintain homeostasis.

VOCABULARY

thermoregulation

MAIN IDEA: Each organ affects other organ systems.

Fill in the blank with the word or phrase that best completes the sentence.

- The organs in the body work together like members of a pit crew servicing a race car. Something that keeps one organ from doing its job can have an effect on all the other _____ of the body.

Complete the table below by filling in the name of the organ next to the description of how it helps produce vitamin D in your body.

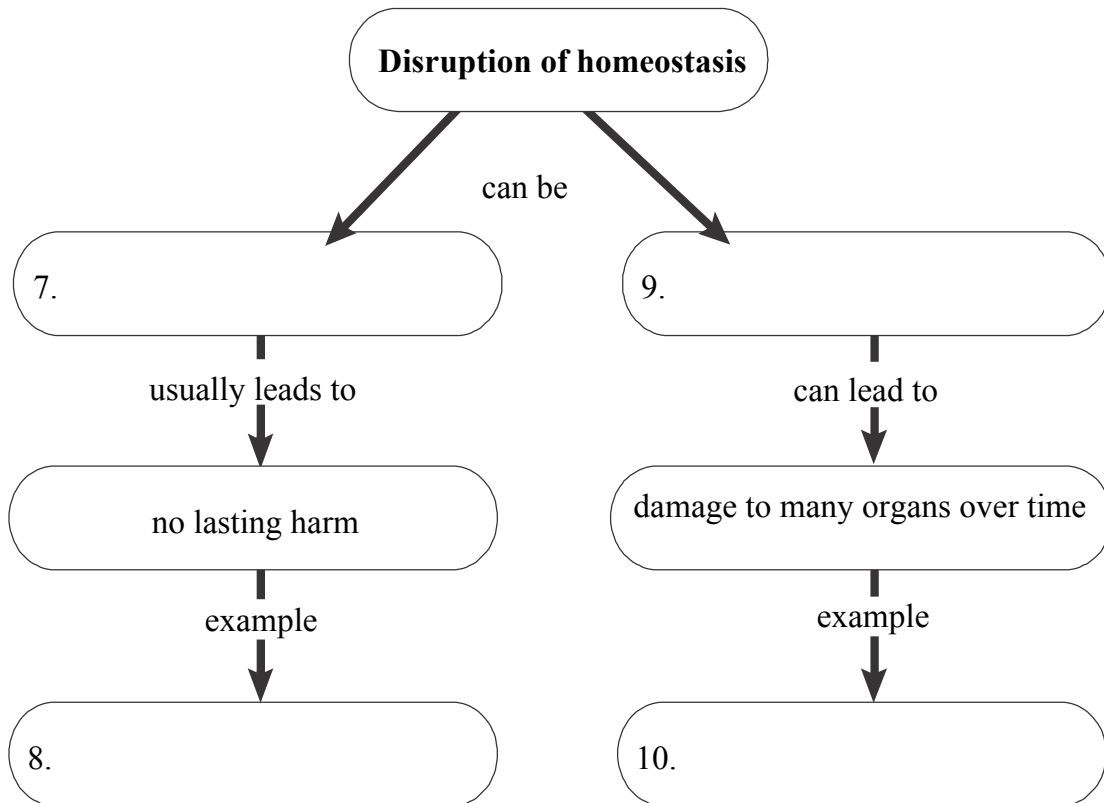
Organ	Function
2. _____	Absorbs ultraviolet light from the Sun and produces an inactive form of Vitamin D
3. _____	Changes the inactive form to an intermediate compound
4. _____	Converts the intermediate compound into Vitamin D

Fill in the blank with the word or phrase that best completes the sentence.

- Vitamin D works with hormones to regulate levels of _____ and _____ required for healthy bones.
- Messages from the _____ in the brain activate organ systems in ways that help regulate body temperature.

MAIN IDEA: A disruption of homeostasis can be harmful.

Fill in the Concept Map to help you remember what you know about long-term and short-term disruption of homeostasis.



Circle the term that best completes the sentence.

11. A *short-* / *long-* term disruption of homeostasis is usually more serious than a *short-* / *long-* term disruption, because it can cause more damage to organs.

Vocabulary Check

Fill in the blank with the word or phrase that best completes the sentence.

12. The prefix *thermo-* and the word *regulation* combine to form the term _____, which is the process of maintaining a constant body temperature.