

Human Body Systems

- Section 35–1

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This section describes human organ systems and explains how the body maintains homeostasis.

Organization of the Body

- **List the levels of organization in a multicellular organism, from smallest to largest.**
 - Cells
 - Tissues
 - Organs
 - Organ systems

<i>Νερwουs σψςτεμ</i>	Coordinates the body's response to changes in its internal and external environments
<i>Σκελεταλ σψςτεμ</i>	<i>Stores mineral reserves and provides a site for blood cell formation</i>
<i>Ιντεγυμενταρψ σψςτεμ</i>	<i>Serves as a barrier against infection and injury</i>
<i>Ενδοχρινε σψςτεμ</i>	<i>Eliminates wastes and maintains homeostasis</i>
<i>Λψμπηατιχ/Ιμμυνε σψςτεμs</i>	<i>Helps protect body from disease.</i>
<i>Μυςχυλαρ σψςτεμ</i>	<i>Helps produce voluntary movement, circulate blood, and move food</i>
<i>Ρεπρoδυχτιwε σψςτεμ</i>	<i>Produces reproductive cells</i>
<i>Ρεσπιρατορψ σψςτεμ</i>	<i>Provides oxygen and removes carbon dioxide</i>
<i>Εξχρετορψ σψςτεμ</i>	<i>Eliminates wastes and maintains homeostasis</i>
<i>Χιρχυλατορψ σψςτεμ</i>	<i>Brings materials to cells, fights infection, and helps to regulate body temperature</i>
<i>Διγεστιwε σψςτεμ</i>	<i>Converts food so it can be used by cells</i>

Organization of the Body

- **What are four types of tissues found in the human body**
- **The four types of tissues are**
 - **muscle tissue,**
 - **epithelial tissue,**
 - **connective tissue,**
 - **nervous tissue**

Organization of the Body

- The eye is an example of a (an) ____.
- organ

Organization of the Body

Circle the letter of the type of tissue that covers interior and exterior body surfaces.

- **epithelial**

Organization of the Body

What is a gland?

- **A gland is a structure that makes and secretes a particular product such as saliva, sweat, or milk.**

Organization of the Body

- **Circle the letter of the type of tissue that connects body parts.**
- **connective**

Maintaining Homeostasis

- The process of maintaining a controlled, stable internal environment is called
- homeostasis

Maintaining Homeostasis

- The process in which a stimulus produces a response that opposes the original stimulus is referred to as negative feedback.
- feedback inhibition

Maintaining Homeostasis

- **Fill in the missing labels in the diagram to show how a thermostat uses feedback inhibition to maintain a stable temperature in a house.**

Maintaining Homeostasis

- Is the following sentence true or false?
- The part of the brain that monitors and controls body temperature is the hypothalamus.
- ☒ true

Maintaining Homeostasis

- What happens if nerve cells sense that the core body temperature has dropped below 37°C?
- The hypothalamus produces chemicals that signal cells throughout the body to speed up their activities, which causes a gradual rise in body temperature.

Maintaining Homeostasis

- **What happens if the body temperature rises too far above 37°C?**
- **The hypothalamus slows down cellular activities, minimizing the production of heat.**