

Biology Chapter 37: Introduction to Body Structure

Chapter Objectives:

- **Body Organization**
Levels of structural organization
Organ systems
- **Skeletal System**
The skeleton
Growth of bones
Joints
- **Muscular System**
Muscles and movement
Muscle contraction
- **Skin, Hair, and Nails**
Skin
Skin disorders

| Vocabulary | | At the end of this unit, you should be able to: |
|--------------------------|------------------------------|---|
| 1. Epithelial tissue | 19. Myosin | <ul style="list-style-type: none"> • Identify four levels of structural organization within the human body • Analyze the four kinds of body tissues • List the body's major organ systems • Evaluate the importance of endothermic in maintaining homeostasis • Distinguish between the axial skeleton and the appendicular skeleton • Analyze the structure of bone • Summarize the process of bone development • List two ways to prevent osteoporosis • Identify the three main classes of joints • Describe the action of muscle pairs in moving the body • Relate the structure of a skeletal muscle to the muscle's ability to contract • Describe how energy is supplied to muscles for contraction • Analyze the structure and function of the epidermis • Describe how the dermis helps the body maintain homeostasis • Summarize how hair and nails are formed • Identify various types of skin disorders |
| 2. Nervous tissue | 20. Myofibril | |
| 3. Connective tissue | 21. Sarcomere | |
| 4. Muscle tissue | 22. Epidermis | |
| 5. Body cavity | 23. Keratin | |
| 6. Axial skeleton | 24. Melanin | |
| 7. Appendicular skeleton | 25. Dermis | |
| 8. Bone marrow | 26. Hair follicle | |
| 9. Periosteum | 27. Subcutaneous tissue | |
| 10. Haversian canal | 28. Sebum | |
| 11. Osteocyte | <u>Body positions</u> | |
| 12. Osteoporosis | 29. Frontal | |
| 13. Joint | 30. Dorsal | |
| 14. Ligament | 31. Medial | |
| 15. Tendon | 32. Lateral | |
| 16. Flexor | 33. Anterior | |
| 17. Extensor | 34. Posterior | |
| 18. Actin | 35. Superior | |
| | 36. Inferior | |