Chapter 06 Self Quiz Result

You have answered 14 questions correctly. You have scored 74%.

1 Bone growth in length is called:

- Interstitial growth
- Epiphyseal growth
- Interosteon growth
- Appositional growth

Feedback

Correct!

2 What is the function of the collagen fibers and other organic molecules found in bone?

- Hardness
- Secretion of inorganic bone salts
- Flexibility
- Formation of the bony callus

Feedback

Sorry, that's not correct. See the section 6.3 Histology of Bone Tissue.

3 Bone resorption involves increased activity of osteoclasts.

- True
- False

Feedback

Correct!

4 The replacement of a cartilage framework with bone is known as endochondral ossification.

- True
- False

Feedback

Correct!

5 The growth of bone is controlled primarily by hormones.

- ➡ (●) True
- ( ) False

Feedback

Correct!

6 Place in order the steps involved in intramembranous ossification.
1. Bony matrices fuse to form trabeculae.
2. Clusters of osteoblasts form a center of ossification that secretes the organic extracellular matrix.
3. Spongy bone is replaced with compact bone on the bone's surface.
4. Periosteum develops on the bone's periphery.
5. The extracellular matrix hardens by deposition of calcium and mineral salts.

- ( ) 2, 4, 5, 1, 3
- ( ) 4, 3, 5, 1, 2
- ( ) 1, 2, 5, 4, 3
- ➡ (●) 2, 5, 1, 4, 3

Feedback

Correct!

7 Place in order the steps involved in endochondral ossification.
1. Nutrient artery invades the perichondrium.
2. Osteoclasts create a marrow cavity.
3. Chondrocytes enlarge and calcify.
4. Secondary ossification centers appear at epiphyses.
5. Osteoblasts become active in the primary ossification center.

- ➡ ( ) 3, 1, 5, 2, 4
- ( ) 3, 1, 5, 4, 2
- (●) 1, 3, 5, 2, 4
- ( ) 1, 2, 3, 5, 4
- ( ) 2, 5, 4, 3, 1

Feedback

Sorry, that's not correct. See the section 6.5 Bone Formation.

8 Spongy bone differs from compact bone because spongy bone:

- Is composed of numerous osteons (haversian systems).
- Is found primarily in the diaphyses of long bones, and compact bone is found primarily in the epiphyses of long bones.
- Does not contain osteocytes contained in lacunae.
- ➡ Is composed of trabeculae that are oriented along lines of stress.

Feedback

Correct!

✓ 9 A primary effect of weight-bearing exercise on bones is to

- Provide oxygen for bone development.
- Increase the demineralization of bone.
- ➡ Maintain and increase bone mass.
- Utilize the stored triglycerides from the yellow bone marrow.

Feedback

Correct!

✗ 10 Place in order the steps involved in the repair of a bone fracture.
1. Osteoblast production of trabeculae and bony callus formation
2. Formation of a hematoma at the site of fracture
3. Resorption of remaining bone fragments and remodeling of bone
4. Migration of fibroblasts to the fracture site
5. Bridging of broken ends of bones by a fibrocartilaginous callus.

- 2, 5, 4, 1, 3
- 1, 2, 5, 4, 3
- ➡ 2, 5, 1, 3, 4
- 5, 2, 4, 1, 3

Feedback

Sorry, that's not correct. See the section 6.6 Fracture and Repair of Bone.

✗ 11 A layer of small, scattered chondrocytes anchoring this also known as the zone of:

- Hypertrophic cartilage
- Calcified cartilage
- Proliferating cartilage
- ➡ Resting cartilage

Feedback

Sorry, that's not correct. See the section 6.5 Bone Formation.

12 The endosteum is the:

- Space within the shaft of the bone that contains yellow bone marrow
- Thin layer of hyaline cartilage covering the ends of bones where they form a joint
- ➡ Membrane lining the medullary cavity
- The tough covering that surrounds the bone surface wherever cartilage is not present

Feedback

Correct!

13 Where would you find tissue that stores triglycerides in bone?

- ➡ Yellow bone marrow
- Articular cartilage
- Red bone marrow
- Epiphyseal growth plate

Feedback

Correct!

14 Which hormone decreases blood calcium levels by accelerating calcium deposition in bones and inhibiting osteoclasts?

- PTH
- ➡ Calcitonin
- Sex hormones
- Growth hormone

Feedback

Correct!

15 Calcitriol is the active form of which of the following vitamins?

- Vitamin K
- Vitamin C
- ➡ Vitamin D
- Vitamin E

○

Feedback

Correct!

✓ 16 An osteon is a canal that extends longitudinally through the bone and connect blood vessels and nerves to the osteocytes.

➡ ◉ True
○ False

Feedback

Correct!

✗ 17 Cells that secrete the components required to build bone are:

➡ ○ Osteoblasts
○ Osteoclasts
◉ Osteocytes
○ Osteons

Feedback

Sorry, that's not correct. See the section 6.3 Histology of Bone Tissue.

✓ 18 Your patient comes in with a fracture and you can see one end of the bone protruding from her skin. What type of fracture does she have?

○ Impacted fracture
➡ ◉ Compound fracture
○ Stress fracture
○ Greenstick fracture

Feedback

Correct!

✓ 19 Osteoarthritis is characterized by failure of new bone formed by remodeling to calcify in adults.

○ True
➡ ◉ False

Feedback

Correct!

This is the end of the test. When you have reviewed your answers, press the button below to retake a test.

Retake a Test