

Biomaterial—Speeding Bone Fracture Recovery

Complete the following sentences using appropriate words from the textbook.

1. The hardness of compact bone is caused by the presence of _____.
2. The major mineral in bone is hydroxyapatite which contains _____ and phosphorus.
3. The minerals calcium hydroxide and _____ are found in bone.
4. Minerals and _____ make bones strong and flexible.
5. A break in a bone is called a _____.
6. In a _____, the bone is broken but the broken ends do not cut through skin.
7. In a _____, the broken ends of the bone stick out through the skin.
8. When a fracture is set, the ends of the bone are brought into _____ with each other and aligned.
9. During the healing process, the _____ starts to make new bone cells.
10. _____ are artificial materials that can be used to replace body parts.
11. A new treatment for fractures involves _____ biomaterial into the fractured bone area.
12. After twelve hours, the biomaterial is as _____ as the regular compact bone.
13. Bone cells, blood vessels, and _____ develop and the healing is completed in as much as half the regular time.
14. _____ is a disease that breaks down bone, causing it to become brittle and weak.
15. Some causes of osteoporosis include a diet low in _____, consuming too much caffeine, and getting too little exercise.