



11. During the period of \_\_\_\_\_ one should build up their bone mass as much as possible, which is enhanced by exercise and good diet.
- a) bone loss   b) menopause   c) established osteoporosis   d) skeletal maturation
12. True or False. In diseases where osteoclast and osteoblast function is coupled, resorption and formation bone markers change in opposite direction.
13. One of the bone formation markers is:
- a) hydroxyproline   c) bone-specific alkaline phosphatase  
b) pyridinoline   d) c-terminal telopeptide
14. The most common sample type for bone resorption marker testing is:
- a) plasma   b) urine   c) serum   d) saliva
15. True or False. Bone formation markers are serum-based and are subject to less biological variability than resorption markers.
16. According to the World Congress on Osteoporosis Consensus Committee, the best developed use for biochemical markers is in:
- a) estimating calcium and phosphorous uptake.  
b) screening for bone mineral density deficiencies.  
c) evaluating the response to treatment within a comparatively short period of time.  
d) predicting the relapse rate once therapy is stopped
17. Changes in bone marker levels indicating effective anti-resorptive therapy can be seen within:
- a) 1-2 months   b) 3-6 months   c) 12-18 months   d) 18-24 months
18. When considering hormone replacement therapy to retard bone loss, the best time(s) to order bone markers is:
- a) before therapy to establish a baseline and then again at 3-6 months post-therapy to monitor response to treatment and/or compliance.  
b) before therapy only  
c) at 3-6 months post-therapy only  
d) before therapy to establish a baseline and then again at 12-18 months post-therapy to monitor response to treatment and/or compliance.
19. Monitoring bisphosphonate oral therapy is important because the drug:
- a) is not effective in many people, despite adequate absorption.  
b) once absorbed, is inactivated by a variety of other drugs.  
c) may have severe side effects.  
d) must be taken in a very specific manner to ensure absorption.

Using the Beckman Coulter Ostase assay, a \_\_\_\_\_% or greater decrease on Ostase level is indicative of effective anti-resorptive therapy.

- a) 10   b) 15   c) 25   d) 40

