Nutritional Aspects of Disease Affecting the Skeleton

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Multiple choice questions

1. Within the first year of life, infants living in an urban environment are unlikely to develop vitamin D deficiency as long as
   (a) Solid food is introduced by 6 months of age.
   (b) Exclusive breast-feeding is maintained throughout.
   (c) Their mother is vitamin D-sufficient.
   (d) They have a sunny indoor home environment.

2. A low BMD (lumbar spine BMD −3.1 on DEXA) in a 15-year-old girl with anorexia nervosa and a BMI under the 1st centile for the last 2 years is likely to improve with
   (a) Growth-hormone therapy given as a daily injection.
   (b) Achievement of an increased BMI above the 5th centile.
   (c) Oestrogen hormone replacement given as an oral contraceptive.
   (d) Limiting weight-bearing exercise to improve protein/calorie nutrition.
3. Which of the following recommendations for fall and fracture prevention in the elderly is not correct?

(a) Give calcium supplementation and recommend regular direct sun exposure outdoors.
(b) Provide DEXA bone-density screening and oral bisphosphonate therapy for those with low BMD (< −1.5 SDS).
(c) Encourage regular exercise using a walking frame and removal of tripping hazards in the home.
(d) Provide daily oral vitamin D supplementation and adequate protein–energy nutrition.

4. Which of the following statements about vitamin D supplementation is not true?

(a) It is not routinely required for healthy young adults who regularly play outdoor sports.
(b) Supplementation during pregnancy should be routinely given to deficient mothers.
(c) Supplementation should be routinely provided to those living in rural poverty in equatorial Africa.
(d) Additional dietary calcium (above the RDI) should be routinely given with vitamin D supplementation in severely deficient individuals.

5. Which of the following is correct concerning the interpretation of DEXA BMD results?

(a) DEXA BMD is a sensitive measure of bone strength.
(b) DEXA BMD results are expressed per cubic grams.
(c) DEXA BMD in children requires paediatric reference data.
(d) DEXA BMD is contraindicated in children because of radiation exposure.