Chapter 73: LEARNING OBJECTIVES

On completion of the chapter, the reader will be able to:

1. Discuss public health concerns related to low bone mass, osteoporosis, and osteoporotic fracture.
2. Explain the major steps in bone remodeling process and osteoporosis pathophysiology.
3. Determine the effect of calcium, vitamin D, and parathyroid hormone concentration changes on bone physiology and pathophysiology.
4. Identify the risk factors for osteoporosis and fractures for a given patient and explain their impact.
5. Use a T-score and World Health Organization fracture assessment (FRAX) tool to determine if osteoporosis treatment is needed.
6. Educate and assist a patient in improving lifestyle to maintain healthy bones and prevent further bone loss.
7. Assess calcium and vitamin D intake and if inadequate create a plan with dietary foods and supplements if needed.
8. Explain the pharmacology, pharmacokinetics, and adverse effects of osteoporosis medications.
10. Adjust standard osteoporosis treatments for children, premenopausal women, older adults, and patients with chronic kidney disease.
11. Counsel patients on the use, benefits, and risks of over-the-counter and prescription medications used in prevention and treatment of osteoporosis.
12. Identify and resolve adherence problems with regard to medications used in prevention and treatment of osteoporosis.
13. Identify and prevent or resolve drug-induced osteoporosis, including glucocorticoid- and chemotherapy-induced osteoporosis.
14. Recommend and monitor vitamin D replacement therapy for a patient with osteomalacia.