

# How Can Health Professionals Improve Bone Health?

**Health care professionals have a critical role to play in helping their patients maintain strong, healthy bones throughout life.** Evaluating potential risk factors for bone disease and promoting bone-healthy behaviors is essential. The Surgeon General recommends that health professionals take the following steps to help keep America's bones strong:

- **Identify and treat individuals at high risk for osteoporosis or other bone disorders.** One of the most important signals that patients may have poor bone health is a previous fragility fracture or a family history of bone disease. Fractures start a downward spiral in health that can ultimately lead to severe disability or even death. This can potentially be avoided if at-risk individuals are identified and receive the necessary treatment in a timely manner.
- **Be familiar with indicators that warrant screening for osteoporosis.** Patients with the following indicators should be considered for a bone mineral density test:
  - All women aged 65 and over
  - Postmenopausal women under 65 with:
    - Family history of osteoporosis
    - Personal history of low-trauma fracture after the age of 50
    - Current cigarette smoking
  - Low body weight
  - Those who take medications that cause bone loss:
    - Oral glucocorticoids (steroids)
    - Cancer treatments (radiation, chemotherapy)
    - Excess thyroxine replacement
    - Antiepileptic medications
    - Gonadal hormone suppression
    - Immunosuppressive agents
  - Diseases that may lead to or aggravate osteoporosis
    - Hyperthyroidism
    - Chronic lung disease
    - Hyperparathyroidism
    - Cancer
    - Diseases that cause poor intestinal absorption
    - Chronic hepatic or renal disease
    - Cushing's disease
    - Multiple sclerosis
    - Rheumatoid arthritis
    - Endometriosis
    - Vitamin D deficiency
    - Sarcoidosis
    - Hemochromatosis

- **Assess patients' diet and lifestyle behaviors that affect bone health. Perform a bone density test on patients with multiple risk factors.** Assessing calcium and vitamin D intake, physical activity, and adverse behaviors such as smoking and excess alcohol intake should be a routine part of health care for all patients.
- **Advise patients to take active steps to ensure bone health.** Educate patients about the following behaviors that can help prevent osteoporosis and bone disease:
  - Engage in weight bearing physical activity every day (adults should get at least 30 minutes a day of exercise, children should get at least 60 minutes a day).
  - Consume the recommended levels of calcium and vitamin D.
  - Stop smoking and limit alcohol consumption.
  - Have vision checked regularly.
  - Make the home safer by removing small rugs, using non-slip bathmats, and adding handrails and light in all staircases.
- **Familiarize yourself with how to treat osteoporosis and low bone mass.** Drugs that prevent bone breakdown (antiresorptives) have been shown to be effective in reducing the risk of future fractures. These drugs may slow any further deterioration of the skeleton and allow for some repair and restoration of bone mass and strength.
- **Actively look for other bone diseases.** While osteoporosis is the most common bone disease, health care providers must also look for the following bone diseases:
  - Paget's disease—Genetic and environmental factors lead to deformed and weak bones.
  - Genetic abnormalities—Disorders like osteogenesis imperfecta cause bones to grow abnormally and break easily.
  - Rickets and osteomalacia—Severe deficiency of vitamin D in children (rickets) and adults (osteomalacia) can lead to bone deformities and fractures.
  - Kidney disease—Renal osteodystrophy can increase the risk of fractures.
  - Endocrine disorders—Excesses or deficiencies in hormones, e.g. parathyroid hormone, estrogen, thyroxine, can result in bone disease.

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