



Section on Women's Health  
American Physical Therapy Association

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## **OSTEOPOROSIS: PREVENTION OF SEQUELAE IN A YOUNGER POPULATION**

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# OSTEOPOROSIS: Prevention of Sequelae in a Younger Population

## OUTLINE

- I. Introductory Material—Seated Exercise Experience
  - A. OSTEOPOROSIS: What Is It?
    - 1. Definitions
    - 2. Pathology
    - 3. Epidemiology
  - B. Concerns in a Younger Population
    - 1. Eating Disorders
    - 2. Sedentary Lifestyle—“Structured Play”
    - 3. Dietary Consideration
    - 4. Medications – Corticosteroids, Anti-Rejection Drugs
    - 5. Microfractures
  - C. Inherent Treatment Dilemma
    - 1. Vertebral Bodies
    - 2. Hip
    - 3. Wrist
    - 4. Pelvis
    - 5. Ribs
  - D. Brief Anatomical Review
    - 1. Vertebral Column
      - a. Vertebral Bodies – concept of the “Front of the Backbone”
      - b. Disc
      - c. Ligaments
      - d. Musculature
        - 1) Erector Spinae
        - 2) Lower Abdominals
      - e. Circulation
      - f. Neurological Issues
      - g. Internal Organs
  - E. Stages of Bone Structuring
    - 1. Growth
    - 2. Modeling
    - 3. Re-Modeling
  - F. Types of bone
- II. Identification of At-Risk Populations
  - A. Screening Tools
    - 1. First Signs
    - 2. Risk Factors
    - 3. Intake Forms
    - 4. Decision Tree

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### III. Intervention

- A. Presentation of Two Patient Categories
  - 1. Group I
  - 2. Group II
- B. Management Implications for Each Group
- C. Presentation of The Meeks Method
  - 1. THE VERTEBRAL BODIES
    - a. Principle #1: UN-Loading and Re-alignment
    - b. Principle #2: Strengthening of support structures—  
primarily back extensor muscles
    - c. Principle #3: Instruction in Safe, Symmetrical, Segmental  
Loading Exercise in an effort to promote  
healthy weight-bearing forces through the  
skeleton
  - 2. THE HIP
    - a. Principle #1: RE-Alignment
      - 1) Assessment of range of motion
      - 2) Restoration of normal range of motion
    - b. Second Principle: Strengthening
      - 1) Exercises to strengthen primary hip support muscles
    - c. Third Principle: Safe Loading
      - 1) Weight-bearing exercise to safely load the hip to  
promote healthy bone and reduce risk of fracture
  - 3. Safety In Movement—ADL's
  - 4. Postural Correction
  - 5. Balance
  - 6. Gait Training—Getting the most from your walking
  - 7. Bone Loading
- D. Patterns of Postural Change
- E. Exercises to Avoid/Approach with Caution
- F. Principles of Movement in Other Activities