

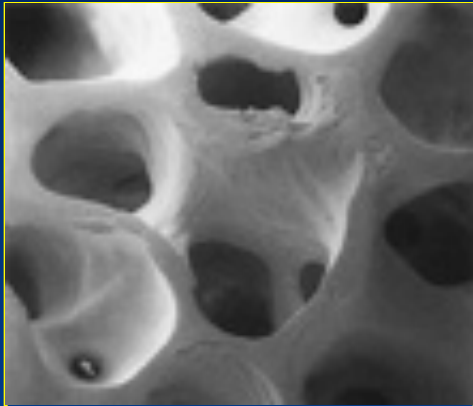
# Underdiagnosis and Undertreatment of Osteoporosis



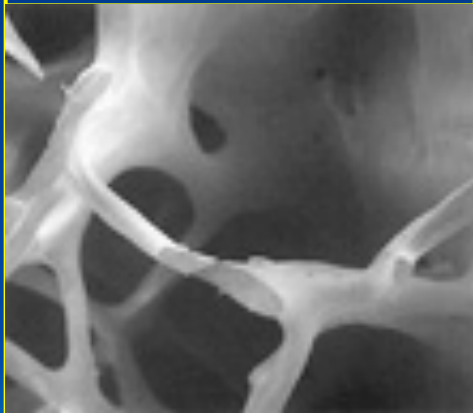
P-L Westesson, RK Lee, MA Ketkar, EP Lin

University of Rochester  
New York

# Osteoporosis



**Normal**



**Osteoporosis**

- 55% of the US population over 50 years
- 44 million US women and men
- 17 billions direct medical cost per year

# Risk factors

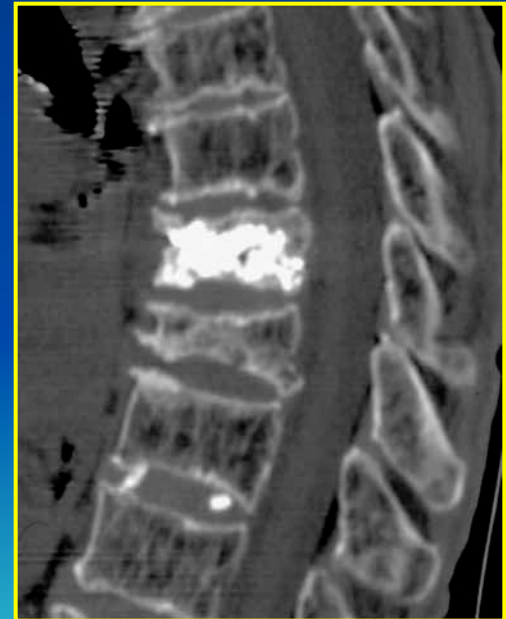
- Age
- Gender
- Family history
- Race
- Small body size
- Early menopause
- Cigarette, alcohol, no exercise
- Steroids, anticonvulsant, methotrexate, cyclosporin, heparin

# Purpose

Study the recognition and treatment of patients with severe osteoporosis

# Patients

- 40 patients referred for vertebroplasty
- Age 46-93 years; mean 76 years
- 19 men and 21 women
- Acute compression fractures by MRI and physical assessment



# Methods

- Review of medical history and chart
  - Medication
    - Fosamax; biphosphonate/alendronate
  - Bone densitometry
  - Regularly seen by PCP

# Results

- All 40 patients had been seen regularly by their family doctor
- 39 patients with severe osteoporosis were not diagnosed or treated
- 1 patient Dexa scan
- 1 patient treated for osteoporosis

# Conclusion

- Osteoporosis is which is typically
- Underdiagnosed
- Undertreated
- Despite availability of preventive drugs

## What can we do?

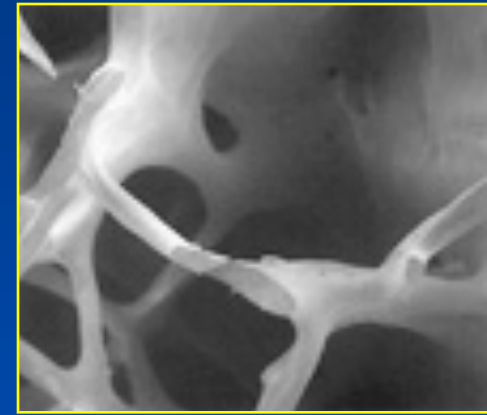
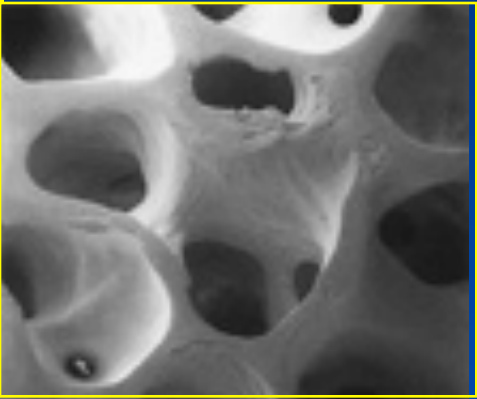


# Prevention

- Calcium
- Vitamin D
- Exercise
- Bone mineral density test - DEXA
- Medication to prevent resorption of bone
  - Biphosphonate (alendronate and risendronate)
  - Calcitonin
  - Estrogen replacement
- Medication to increase bone formation
  - Parathyroid hormone
  - Teriparatide (parathyroid hormone analog)



# Thank you



**The Lancet**  
**2002;360:1891**

**P-L Westesson, RK Lee, MA Ketkar, EP Lin**

**University of Rochester**  
**New York**