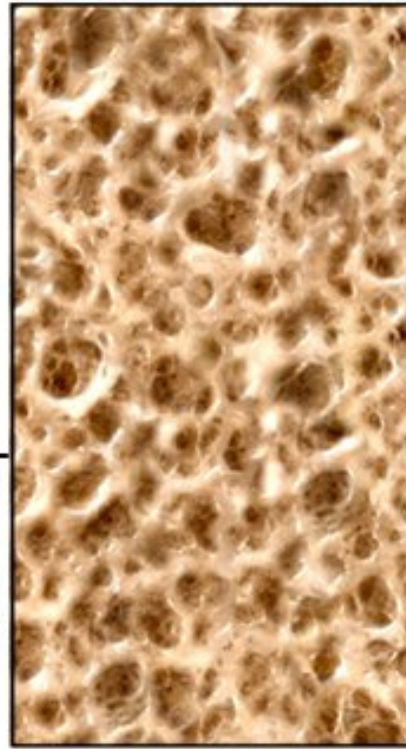


# What is Osteoporosis?

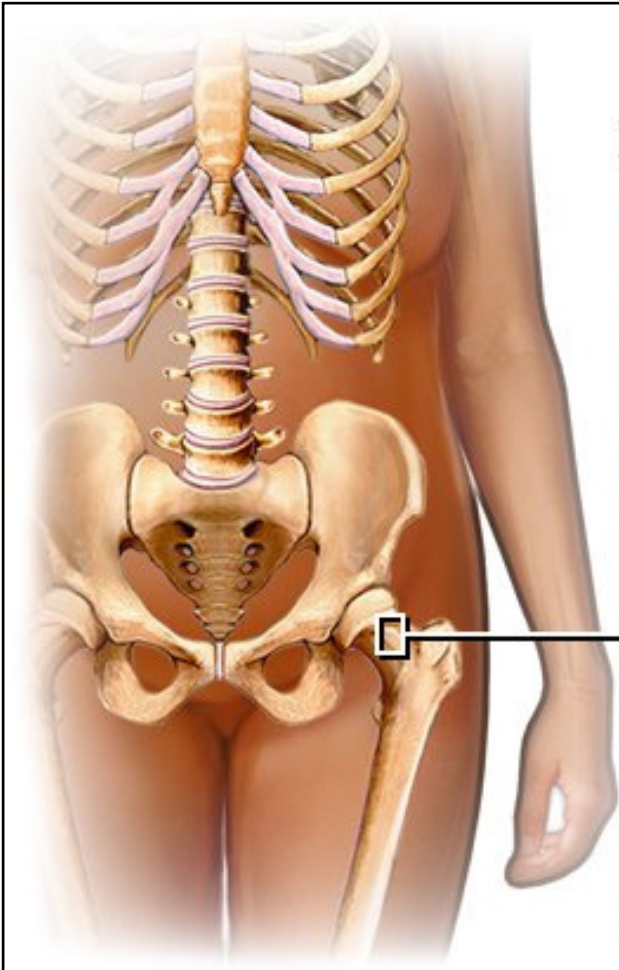
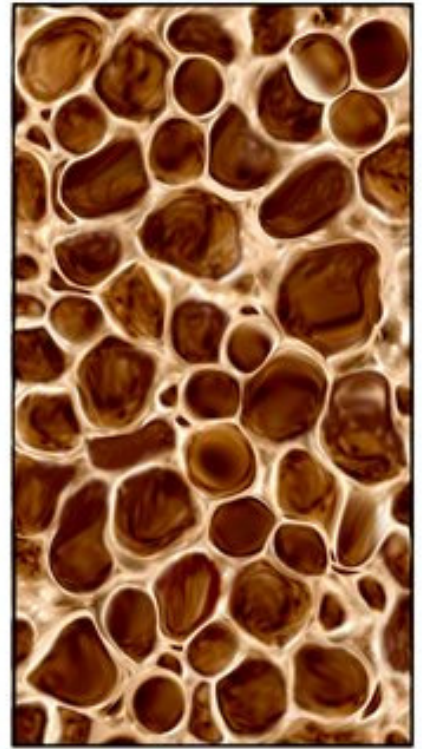
**The thinning of bone tissue and loss of bone density over time.**

- Aka "the silent thief" because bone loss occurs without symptoms.
- Occurs when the body fails to form enough new bone, when too much old bone is reabsorbed by the body, or both.
- Sometimes confused with **osteoarthritis**
  - Osteoporosis is a bone disease
  - Osteoarthritis is a disease of the joints and surrounding tissue.

Normal bone matrix



Osteoporosis



# Physical Activity

**Physical Activity is an important factor in risk reduction and treatment of osteoporosis.**

## **Roles:**

1. Build and maintain healthy bone
2. Improve muscle strength, posture, balance and coordination
3. Reduce risk of falls and broken bones (fractures)
4. Contributes to sense of well-being
5. Improvement in quality of life



# What Happens To My Bones?

- **Calcium** and **phosphate** are essential for normal bone formation.
- **Bone production and bone tissues may suffer when:**
  - You do not get enough calcium
  - Your body does not absorb enough from your diet
  - Calcium and phosphate gets reabsorbed back into the body as you age
- This can result in brittle, fragile bones that are more prone to fractures, even without injury.
- This occurs gradually over years. Many times, a person will have a fracture before becoming aware that the disease is present.

# Symptoms

There are no symptoms in the early stages of the disease.

**Symptoms occurring *late* in the disease include:**

- Bone pain or tenderness
- Fractures with little or no trauma
- Loss of height (as much as 6 inches) over time
- Low back pain due to fractures of the spinal bones
- Neck pain due to fractures of the spinal bones
- Stooped posture or kyphosis

# Causes

The leading causes are a drop in **estrogen** in women at the time of menopause and a drop in **testosterone** in men.

Women over age 50 and men over age 70 have a higher risk for osteoporosis.

## Other causes include:

- Being confined to a bed
- Chronic rheumatoid arthritis, chronic kidney disease, eating disorders
- Taking corticosteroid medications daily for over 3 months, or taking anti-seizure drugs
- Hyperparathyroidism
- Vitamin D deficiency
- White women, especially those with a family history of osteoporosis, have a greater risk



