

# OSTEOPOROSIS

*The "silent disease"*

## Basics

- Loss of bone mass leading to increased bone fragility

## Risk factors

- Older adults and female sex have higher risk
- Lower body mass index (BMI) carries higher risk
- Current tobacco smoking, daily alcohol consumption
- Drugs such as long-term use of oral glucocorticoids (equivalent to  $\geq 5$  mg/day prednisone for  $\geq 3$  mo)
- Endocrine or inflammatory diseases, deficiency states (magnesium, vitamin D)

## Symptoms

- Osteoporosis does not become clinically apparent until a fracture occurs. 2/3 of vertebral fractures are painless. May observe stooped posture and height loss.
- Acute pain may follow a fall or minor trauma.



## Prevention strategies

- Maintain your vitamin D above 20 ng/ml (50 nmol/L) as insufficiency can predispose to osteoporosis. Maintain adequate magnesium and calcium intake.
- Avoid inactivity, limit alcohol, stop smoking. Incorporate weight-bearing and muscle-strengthening exercise. Implement dietary and lifestyle changes that reduce the likelihood of oxidative stress and inflammation.
- Check your thyroid function as overactive thyroid can lead to osteoporosis. Calculate your 10-year probability of major osteoporotic fracture (hip, spine, humerus, or wrist) using FRAX (Fracture Risk Assessment Tool)
- Women age 65 years and men age 70 years and older, and postmenopausal women above age 50 years, should get bone mineral density measurement as estrogen deficiency accelerates bone loss in both women and men