

# OSTEOPOROSIS

## Clinical Diagnosis

- Osteoporosis itself doesn't have any symptom
- Symptoms develop once the fragility fracture occurs

## Investigation

- Plain X-ray of spine
- Dual energy X ray absorptiometry (DXA) BMD
- Renal function test
- Calcium
- Albumin
- Phosphorus
- Urinary calcium level
- QCT (quantitative computer tomography)
- Quantitative Ultrasound
- Biochemical markers of bone resorption (increased urinary excretion of C- telopeptides)
- Vit D level
- Testosterone level
- Urinary free cortisol
- Serum protein electrophoresis

## Treatment

- Surgery -Vertebroplasty, Open surgical spinal stabilization, Kyphoplasty
- supplementation and bracing
- Pain control- Bed rest , Analgesics, Brace
- Antiresorptive agents- Bisphosphonates
- Estrogen analogs- Raloxifen
- Calcitonin Bone anabolic agent -Teriparatide
- Calcium salts
- Sodium fluoride
- Nutrition Calcium -Vitamin D, Vitamin K ,
- Exercise - Aerobics
- Weight bearing Resistance exercise

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|  | <ul style="list-style-type: none"><li>- Spinal orthoses</li><li>- Long term Osteoporosis prophylaxis</li><li>- Injectable medication</li><li>- Other agents- RANKL inhibitors, Strontium ranelate</li></ul> |
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