

# Osteoarticular changes in Wilson's Disease

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# Clinical presentation

- Neurological-25-69%
- Hepatic-14-50%
- Psychiatric-2%
- Osseomuscular-2-25%



# Causes of changes in bone

- Copper overloading
- Renal tubular dysfunction
- Chronic spasticity and tremor
- Liver failure
- Osteoporosis due to calcium and phosphorus loss
- Penicillamine induced joint pains and myasthenia



# Symptoms

Incidence-2-25%

- Bone pain
- Joint swelling
- Rickets ( calcium deficiency) like features
- Bow legs or knock knees



# Joints involved-Knee

Genu valgus



Knee synovitis



# '8' Plate for hemi-epiphysiodesesis

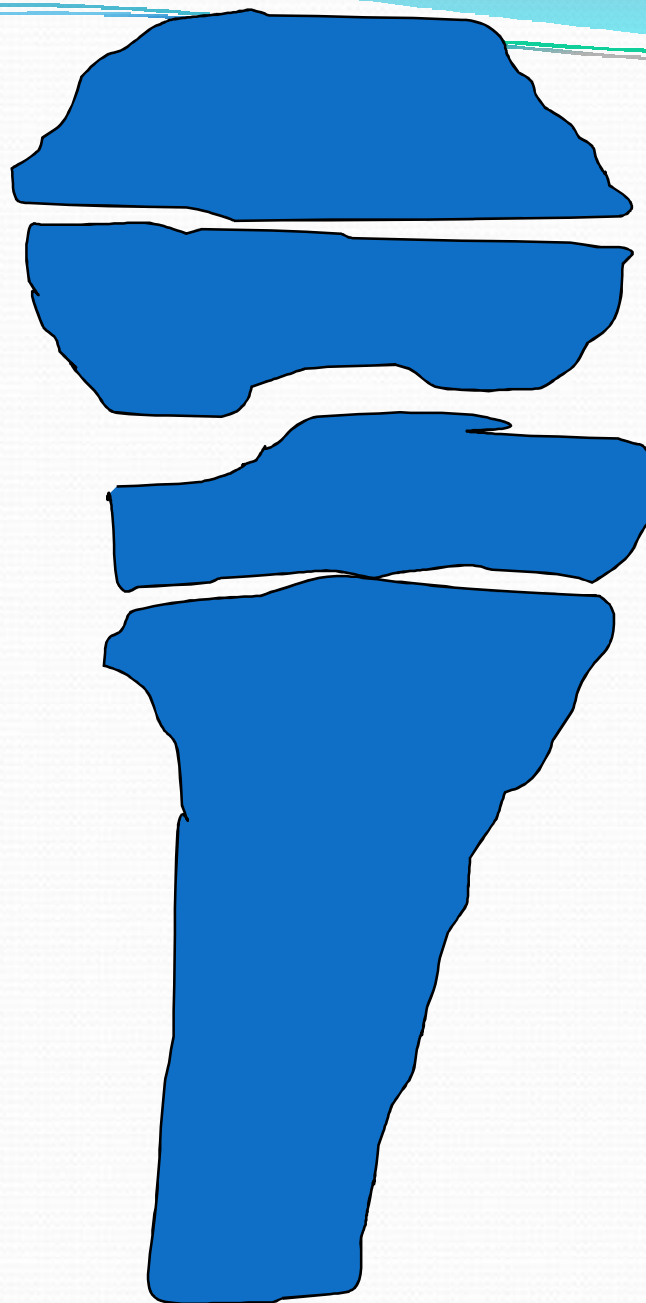
Pre operative



Post Operative



Epiphysiodesis  
using 8 plates





8 plates

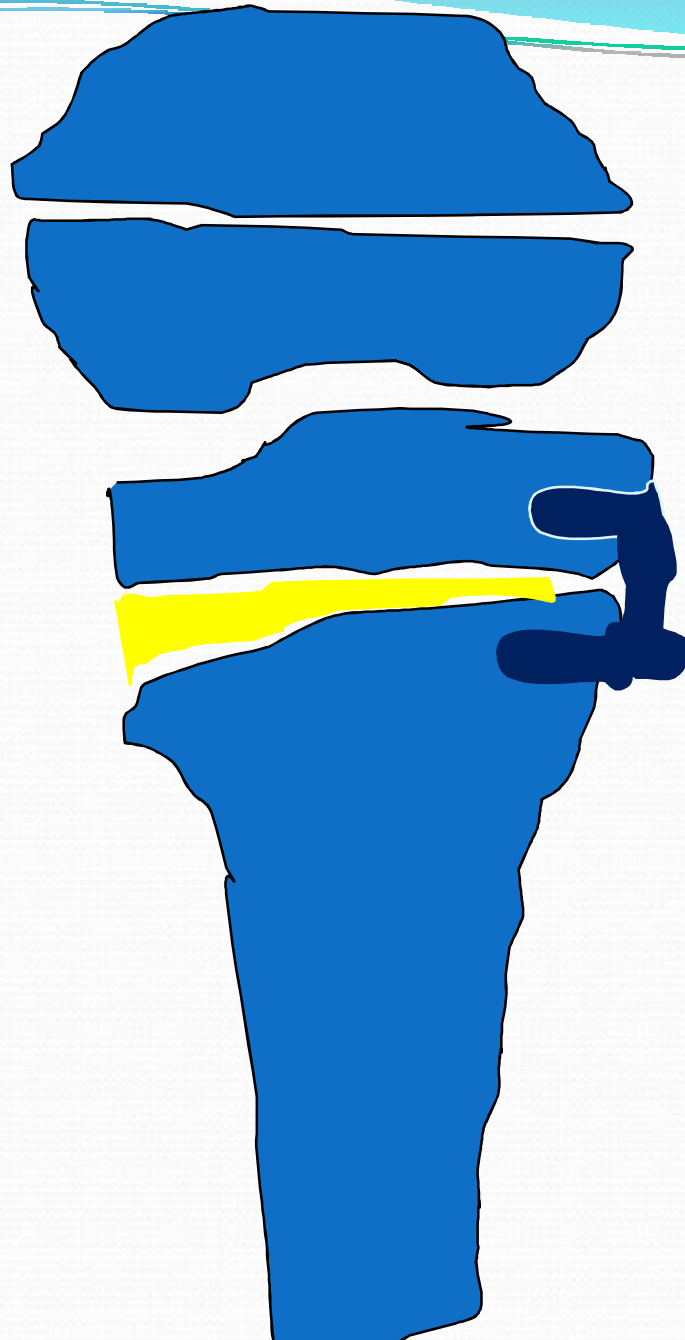




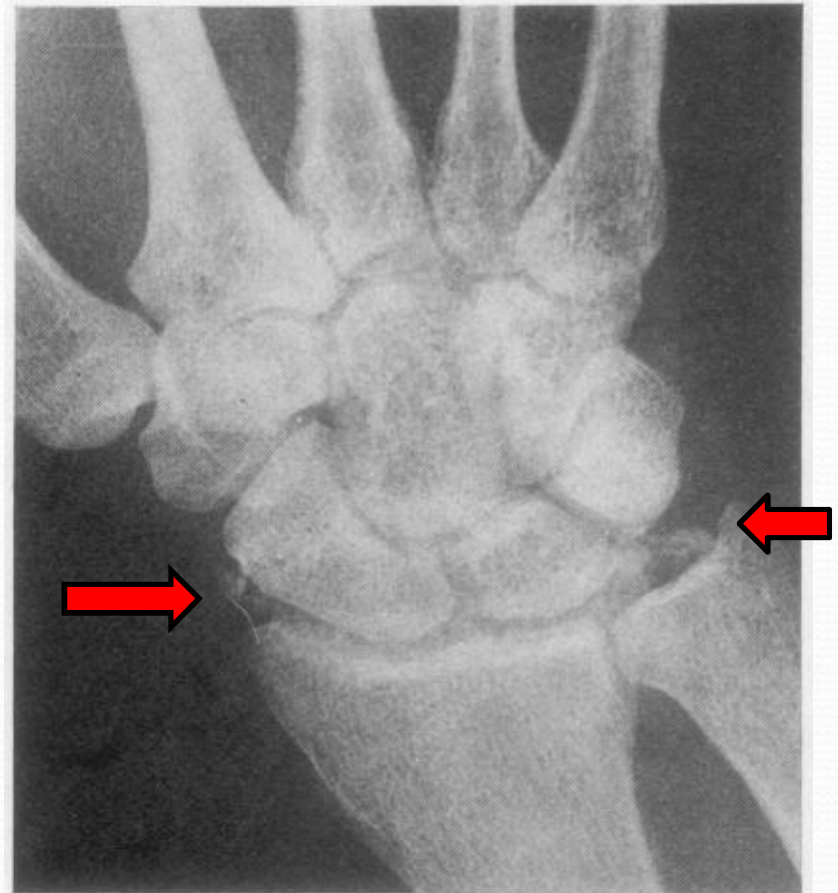
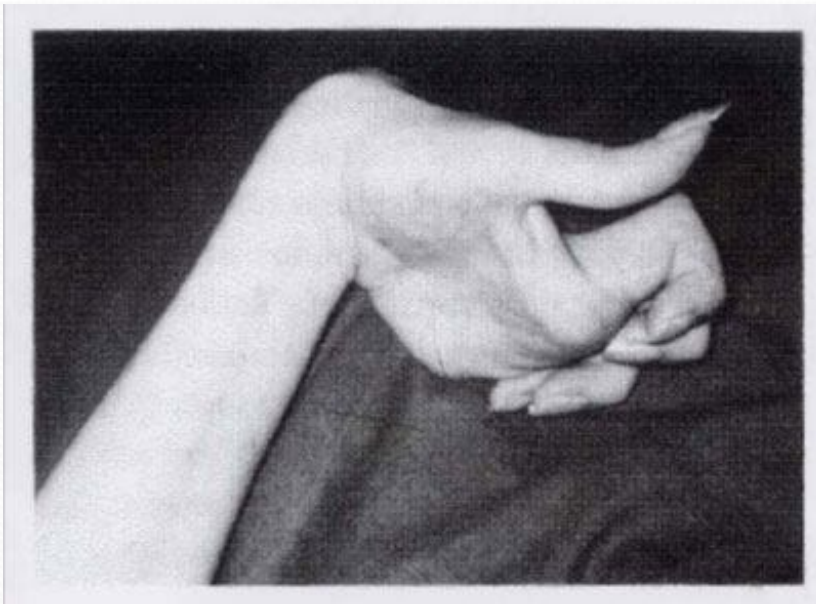
8 plates



8 plates



# Hand





# Tendon transfer or Botox







# Radiology

- Osteoporosis
- Bone fragmentation
- Osteoarthritis
- Chondromalacia patellae
- Subchondral bone fragments
- Fractures



# Bone Density

- 23% had osteopenia
- 67% had osteoporosis



# Prevention

- Early diagnosis
- Maintaining good control
- Preventing liver and kidney failure
- Watching for features of rickets( calcium deficiency)
- Prophylactic Vit D and Calcium

# Questions

