

HAND X-RAYS IS AN INDEX OF DISEASES

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X-ray Rheumatoid arthritis shows bilateral symmetry and soft tissue swelling : Juxta articular osteoporosis and loss of joint space



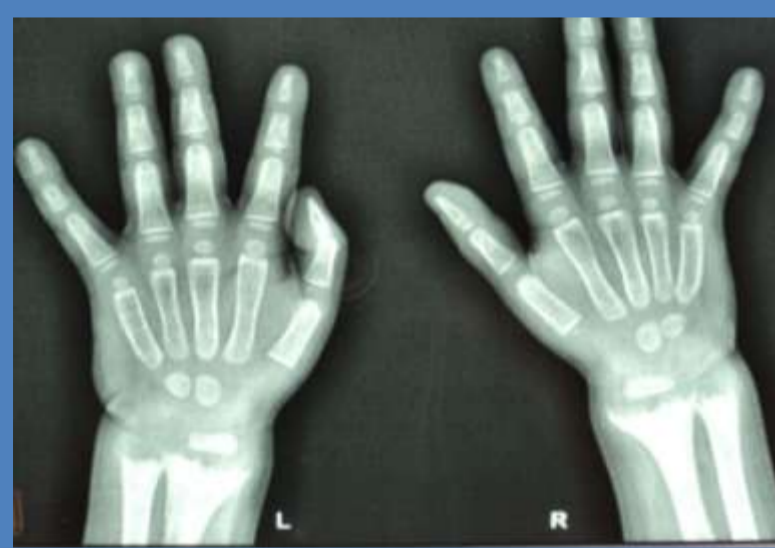
Scleroderma X-ray findings: Tapered conical finger tips and resorption of terminal tuft



Erosive osteoarthritis X-ray shows involvement of DIP joints. Also shows osteophytes, erosion and deformity



Psoriatic arthritis shows asymmetrical involvement of DIP joints, prominent periarticular swelling, loss of joint space, marginal erosions



Rickets X-ray shows osteopenia, frayed paint brush metaphyseal margins and lack of zone of provisional calcifications



Acromegaly X-ray shows widened joint spaces and periosteal new bone formation and also spade like fingers



Fluorosis X-ray shows increase in bone density and also interosseous membrane calcification



Osteopetrosis X-ray shows increased densities within the metacarpals and phalanges causing a 'Bone within Bone' appearance



Marfan Syndrome X-ray shows arachnodactyly or 'Spider-like' fingers



Ochronosis X-ray shows



Hyperparathyroidism X-ray shows sub-periosteal resorption noted in the radial margins of the proximal and middle phalanges



Osteopoikilosis X-ray shows



Thalassemia X-ray shows coarse trabecular pattern and thin cortices



Spina Ventosa (Tuberculous dactylitis) X-ray shows cystic swelling of the 5th metacarpal & destruction of the proximal phalanx of the 1st digit



Pyknodysostosis X-ray shows increase in bone density. Acroosteolysis also noted



Pseudohypoparathyroidism X-ray shows short thumb distal phalanx and 4th metacarpal



Hypothyroidism X-ray shows pseudo epiphyses in the 2nd, 3rd, 4th & 5th metacarpals



Achondroplasia X-ray shows Trident Hand.



Down Syndrome X-ray shows clinodactyly of little finger and widened space between 1st two digits



Morquio's Disease



Hurler's Syndrome X-ray shows short metacarpals and phalanges,. Osteoporosis also noted



Holt Oram Syndrome shows agenesis of radius and hypoplasia of thumb



Gorham disease shows massive osteolysis of bone. Involved bone is soft and spongy with eroded cortices



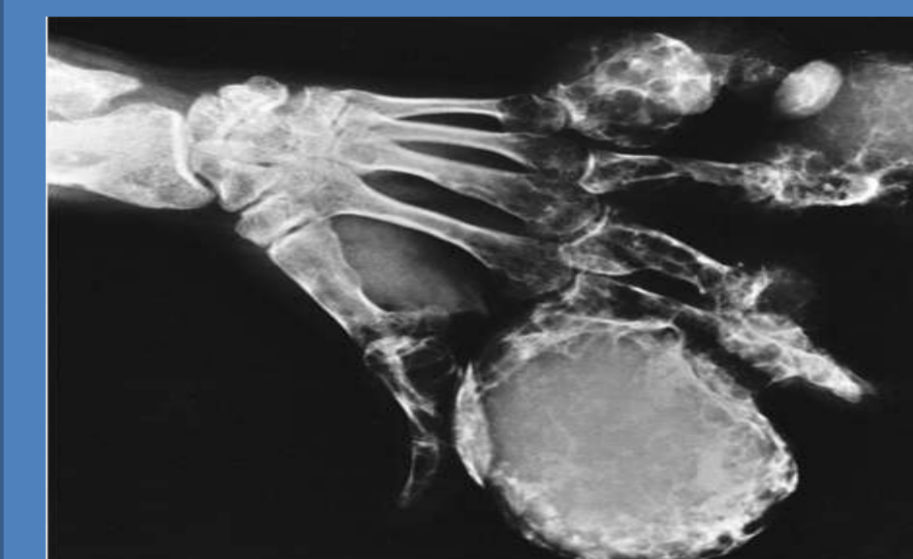
Acral osteolysis X-ray shows



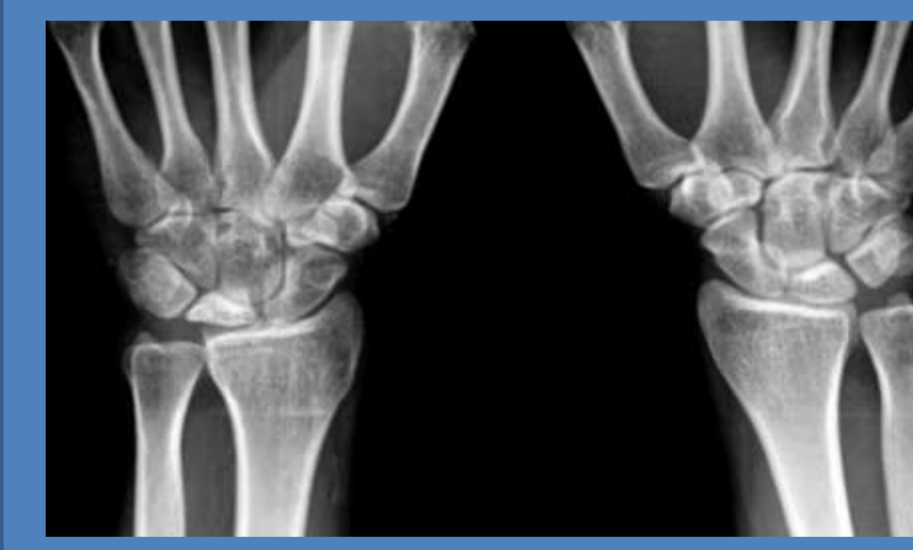
Preiser's disease X-ray shows sclerotic proximal pole of scaphoid also called AVN of scaphoid



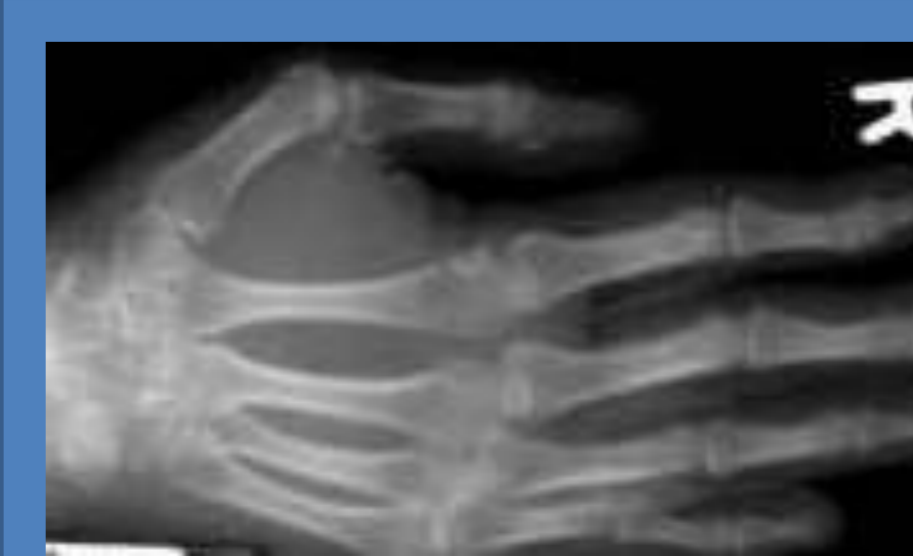
Ollier's Disease X-ray shows multiple enchondromatosis within the hand



Maffucci's Syndrome shows large soft tissue hemangiomas of hand with phlebolith calcifications



Kienbock's disease X-ray shows increased density and fragmentation of the lunate bone



Jaccoud's arthritis X-ray shows ulnar deviation and lack of articular changes, involvement of MCP & PIP joints. Seen in acute rheumatic fever

REFERENCES :

- 1) Yochum and Rowe's Essentials of Skeletal Radiology