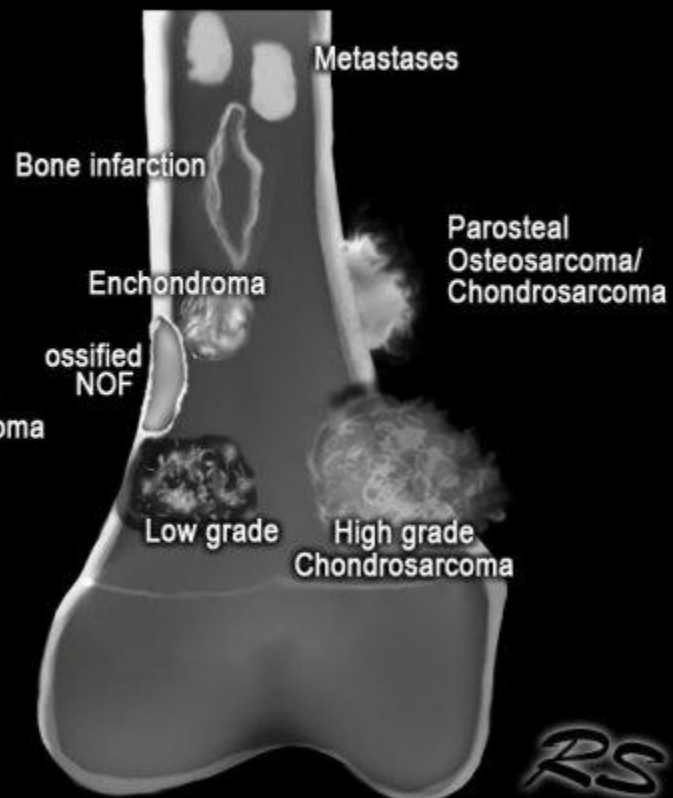


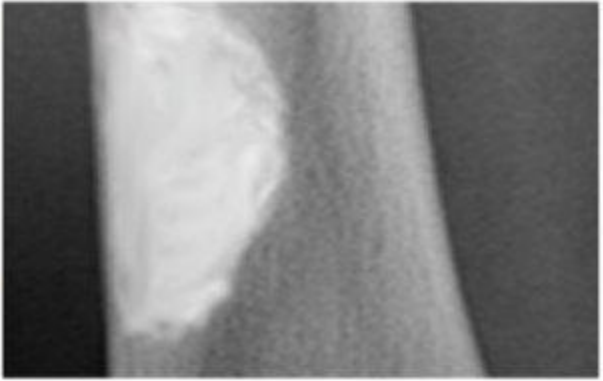
< 30 years



> 30 years

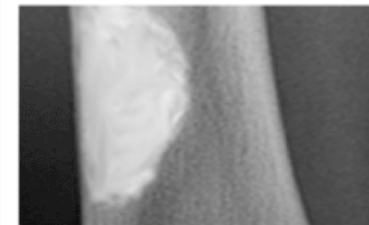


Sclerotic bone lesions

0 - 10y	Osteosarcoma	
10 - 20 years	Osteosarcoma Fibrous Dysplasia Eosinophilic Granuloma Osteoid osteoma Osteoblastoma	
20 - 40	Enchondroma Osteoma Bone island Parosteal Osteosarcoma Parosteal Chondrosarcoma Healed lesions: NOF - EG - SBC - ABC - Chondroblastoma	
> 40 years	Metastases Chondrosarcoma Bone island	
All ages	Infection	

Sclerotic bone lesions

I	Iatrogenic	
V	Vascular	Bone infarct - Hemangioma
I	Infection	Chronic osteomyelitis
N	Neoplasm	Osteoid matrix Osteosarcoma Parosteal osteosarcoma Osteoma Osteoid osteoma Osteoblastic metastases Chondroid matrix Enchondroma Chondrosarcoma Osteochondroma
D	Drugs	Vitamin D - Fluoride
	Degenerative	
I	Inflammatory	Melorrheostosis
	Idiopathic	
C	Congenital	Bone island - Osteopoikilosis
A	Autoimmune	
T	Trauma	Stress fracture
E	Endocrine	Paget's disease



3M's proof

- **M:** malignancy
 - metastases (osteoblastic metastases)
 - lymphoma
 - leukemia
- **M:** myelofibrosis
- **M:** mastocytosis
- **S:** sickle cell disease
- **P:** Paget disease of the bone/pyknodysostosis
- **R:** renal osteodystrophy (treated secondary hyperparathyroidism)
- **O:** osteopetrosis
- **O:** other
 - sclerotic dysplasias: osteopoikilosis, osteopathia striata, melorheostosis (usually multifocal)
 - hyperthyroidism
 - hypoparathyroidism
 - athletes
- **F:** fluorosis

Generalized Sclerosis

- Osteopetrosis - “typically Children”
- Pyknodysostosis - “typically Children”
- Renal osteodystrophy
- Sickle Cell
- Osteoblastic metastasis
- Idiopathic myelofibrosis “adults”
- Lymphoma
- Fluorosis
- Mastocytosis

Diffuse, but not diffuse with in bone

- Melorheostosis “flowing wax”
- Erdheim-Chester Disease
 - osteosclerosis of the diaphyses and the metaphyses with sparing of the epiphyses
- Engelmann's disease – adults “ribbing disease”
 - thickening of the cortices of the diaphyses both periosteal and endosteal surfaces.
 - epiphyses and metaphyses are spared
- Osteopathia striata – lines
- Osteopoikilosis - circles
- Mets -patchy