

# Osteoblastoma

- Rare bone-forming tumors that may be locally aggressive.
- Compared to their histological relative, the osteoid osteoma, they are larger ( $>2$  cm) and more frequently affect the axial skeleton.
- Osteoblastoma accounts for the 'O' in the popular mnemonic for lucent bone lesions FEGNOMASHIC.
- a.k.a. "giant osteoid osteoma" since it has same histopathology but size is  $> 1.5$  cm
- Most common in spine, but when present in long bones, osteoblastomas are typically metaphyseal
- Patients typically  $< 30$  years old

# Osteoblastoma

- 4 times less common than osteoid osteoma, although it also occurs in the adolescent/young adult age range and also presents with pain.
- Interestingly, the pain of osteoblastoma is not typically relieved by aspirin. •
- The most common location is the posterior elements of the spine, occurring anywhere from the cervical spine through the sacrum.
- **Osteoblastoma may also occur in the femur and tibia.**
- The most common radiographic appearance of osteoblastoma is a lytic lesion with mineralization.
- Very rarely, osteoblastoma may be aggressive with large soft -tissue mass, but lacking metastatic potential.
- Secondary aneurysmal bone cyst may be seen, especially when spinal in location.
- A lytic lesion in the posterior elements of a young person may represent an osteoblastoma or aneurysmal bone. If mineralization is present Osteoblastoma is favored

# Location

- spinal column: ~40% (range 32-46% 2); often involves the posterior elements
- cervical spine: 9-39% of all spinal osteoblastomas
- sacrum: 17% of all spinal osteoblastomas 6
- usually located in the **metaphysis** and distal diaphysis of the long bones

# Xray

- Lesions are predominantly lytic, with a rim of reactive sclerosis
- Tend to be expansive
- May have a bubbly appearance
- Internal calcification may sometimes be present
- An associated soft tissue mass may also be present
- Demonstrate a rapid increase in size with associated cortical expansion in the vast majority of patients, sometimes with cortical destruction
- May be surrounded by sclerosis or periostitis in up to 50%
- May be a secondary aneurysmal bone cyst-like changes in 20%







