

# **MRI Characteristics of Malignant vs. Benign Lesions**

## **Benign**

- Maintenance of at least some normal T1 signal within vertebral body
- No involvement of posterior elements
- Vertebral cleft sign (fluid sign)
- Low intensity band along the fracture endplate representing the fracture line
- Lack of soft tissue mass in paravertebral, or epidural locations
- Fracture that does not involve a vertebra above T6-7

## **Malignant**

- Focal areas of abnormal signal may represent neoplasm (think blotchy appearance)
- Findings of a convex posterior vertebral body border
- Abnormal signal intensity involving one or both pedicles
- Epidural or focal paraspinal mass
- Additional spinal metastases are suggestive of a pathologic fracture
- Altered signal intensity in non-fractured vertebra
- Fracture above T7
- Presence of soft tissue component