

# Plain Film Diagnostics

- Common lower extremity injuries

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# Disclosures

- Head Team Physician for AHL Springfield Thunderbirds
- Westfield State University, American international College, Mt. Holyoke University
- No commercial or financial conflicts of interest

# Objectives

- Review basic terminology of naming views and common abnormalities
- Examples to highlight

# Why are x-rays needed?



Evaluate structure



Assess Trauma



Pre-operative  
assessment



Evaluate of healing

# X-ray interpretation

- Steps to interpretation : ABCs
  - A – Adequacy, alignment, anatomy
    - 2 views minimum
    - If targeting shaft- want joint above and below
    - Adequate penetration
  - Alignment- the type of x-ray views taken and the anatomical site visualized “AP and lateral views of the knee”

## Knee series



AP



Lateral

Case courtesy of Dr Matt Skolki rID: 30420

# X-ray interpretation

- A: anatomy
  - Need to know normal anatomy
  - Know common normal variants
  - Peds: growth plates



# ABCs of interpretation

- B- Bones – Outline and density
  - Outline – contours of the bone should be followed
  - Density – Radio-lucent = thinner bone
  - Radio-opaque = thicker than surrounding bones



## ABCs of interpretation

- C- Cartilage: not see on plain films
  - Look at articular spaces
  - Loose bodies
  - Erosions







## ABCs of interpretation

- S : Soft tissue  
swelling, effusions  
Soft tissue signs can indicate occult fracture, infection (gas in soft tissue) or tumor

# Examples









RIGHT

WEIGHT BEARING

Thank you

# References

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