Hip Dislocations in Athletics

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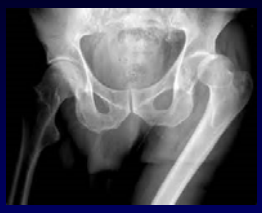
Hip Dislocations

Hip Dislocations

- 70% from Motor vehicle accidents
- Rare in sports
  - Football
  - Basketball
  - Gymnastics vault
  - Rugby
  - Skiing/cycling



Hip Dislocations

- Mechanism
  - Posterior directed force on femur

Hip Dislocations

- Mechanism

Hip Dislocations

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Hip Dislocations

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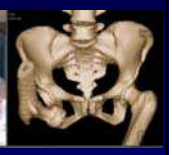
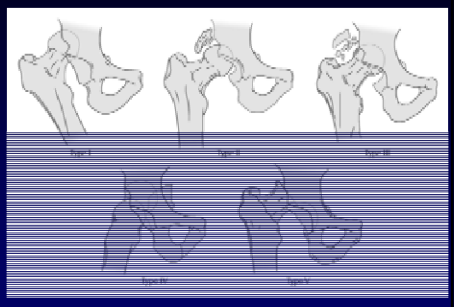
Hip Dislocations

- Mechanism
  - Anterior: flexed hip is forced into abduction and external rotation in a splits-type injury.



Hip Dislocations

- Types
  - Type 1 most common



Hip Dislocations

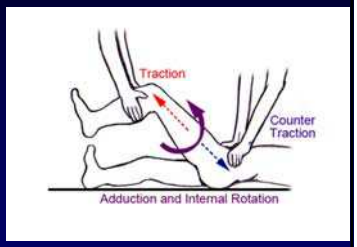
- On field treatment
  - Often lying in fetal position with dislocated hip facing upwards
  - Buttock pain and abductor spasm
  - Checking thigh lengths can help confirm

Hip Dislocations

- On field treatment
  - Posterior: flexed, adducted, internally rotated
    - Attempt reduction
  - Anterior: extended, abducted,external reduction
    - Likely need reduction at hospital

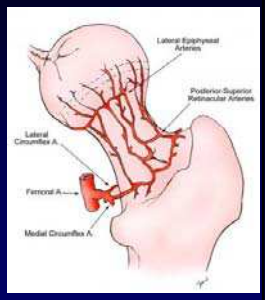
Hip Dislocations

- On field treatment
  - Reduction!
    - Hip flexion, IR
    - Traction in line with femur
  - Time sensitive



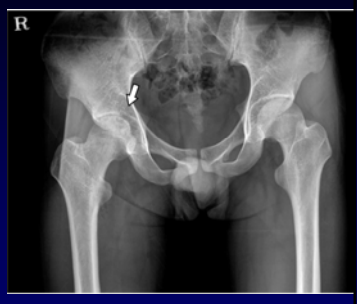
Hip Dislocations

- Why time sensitive?
  - Blood supply



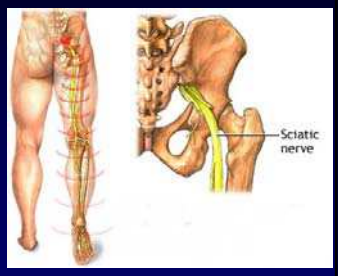
Hip Dislocations

- Why time sensitive?
  - Osteonecrosis
    - Time dependent
    - 4.8% if within 6 hours
    - 52.9% if after 6 hours



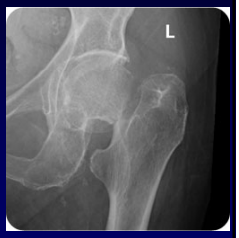
Hip Dislocations

- On-field Treatment
  - Neurovascular exam
    - Before and after reduction



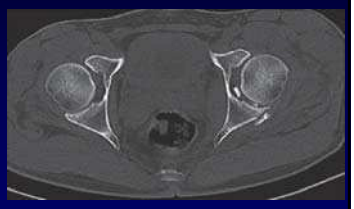
Hip Dislocations

- On-field Treatment
  - Transfer to nearby hospital
    - X-rays
      - Acetabular fracture
      - Femoral neck fracture
        - Surgical emergency



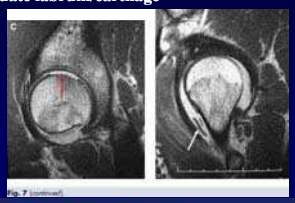
Hip Dislocations

- On-field Treatment
  - Transfer to nearby hospital
    - CT scan
      - Reduction
      - Fracture
      - Intra-articular fragments



Hip Dislocations

- On-field Treatment
  - MRI
    - Not emergent
    - Evaluate labrum/cartilage



Hip Dislocations

- Surgery?
  - Fracture
  - Incarcerated fragment
  - Labral tears/chondral injury?: all patients!

Arthroscopic Findings Following Traumatic Hip Dislocation in 14 Professional Athletes

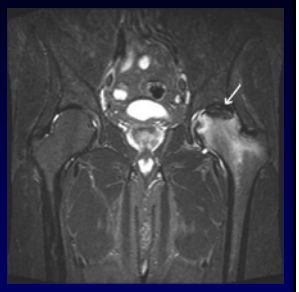
Marc J. Philippon, M.D., Dave A. Kuppersmith, B.S., Andrew B. Wolff, M.D., and Karen K. Briggs, M.P.H.

Hip Dislocations

- Rehab
  - Stable Grade 1
    - WBAT
  - TTWB or NWB for 4-6 weeks if Grade 2/3 or surgery
  - Early ROM, Weight bearing exercises by 4-6 weeks

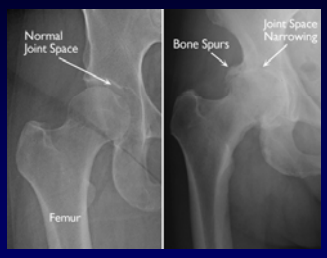
Hip Dislocations

- Complications
  - Osteonecrosis
    - 4.8%-52.9%
    - Dependent on time of reduction
    - Consider repeat MRI at 2 weeks
      - Adjust PT?



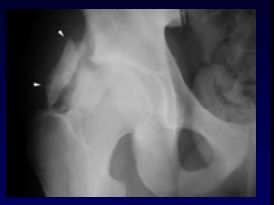
Hip Dislocations

- Complications
  - Osteoarthritis
    - 16-23%



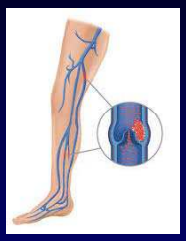
Hip Dislocations

- Complications
  - Heterotopic Ossification
    - 2%
    - No role for radiation or indomethacin in simple dislocations
    - May need with acetabular surgery



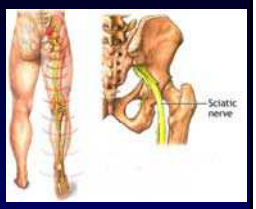
Hip Dislocations

- Complications
  - DVT
    - Early ambulation
    - Aspirin
    - Compression stockings/pneumatic sleeves
    - Medication?



Hip Dislocations

- Complications
  - Sciatic nerve injury
    - 5-10% of posterior
    - 64% recover fully
    - Several months to years
    - AFO/rehab
    - Exploration rarely needed
      - stretch



Hip Dislocations

- Conclusions
  - Anterior vs. posterior
  - Early reduction if possible
  - Transfer for xrays/CT
  - MRI on elective basis
  - Rehab

Thank you