

COOL SPORTS MEDICINE CASES IN KIDS

Suzanne Hecht, MD, CAQ, FACSM, FAMSSM
Associate Professor
Dept of Family Medicine & Community Health
Team Physician; UM Athletics
UM Sports Medicine Fellowship Director



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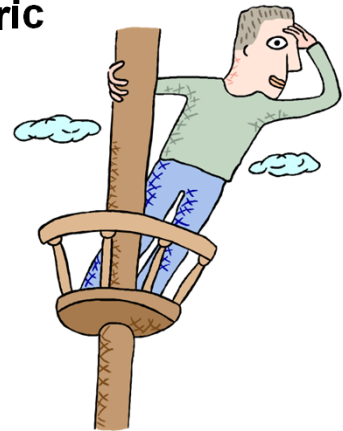
DISCLOSURES

❖ None

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OVERVIEW

- ❖ 3 cool cases
- ❖ Highlight differences between pediatric vs adult athletes
- ❖ Discuss evaluation & diagnosis
- ❖ Discuss management
 - **Return to Play (RTP)**



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CASE 1

- ❖ 9 yo healthy male wrestler w/ 4 wks of LEFT LBP
 - No acute injury
 - Hurts to arch, run, sit in class
 - No radiation or n/t
 - No systemic symptoms
 - No h/o of LBP
 - Fam Hx: neg for LBP
 - No pain w/ sleeping
 - Rest & ice help
 - Chiro rx: no benefit
 - Ninja & martial arts also

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CASE 1

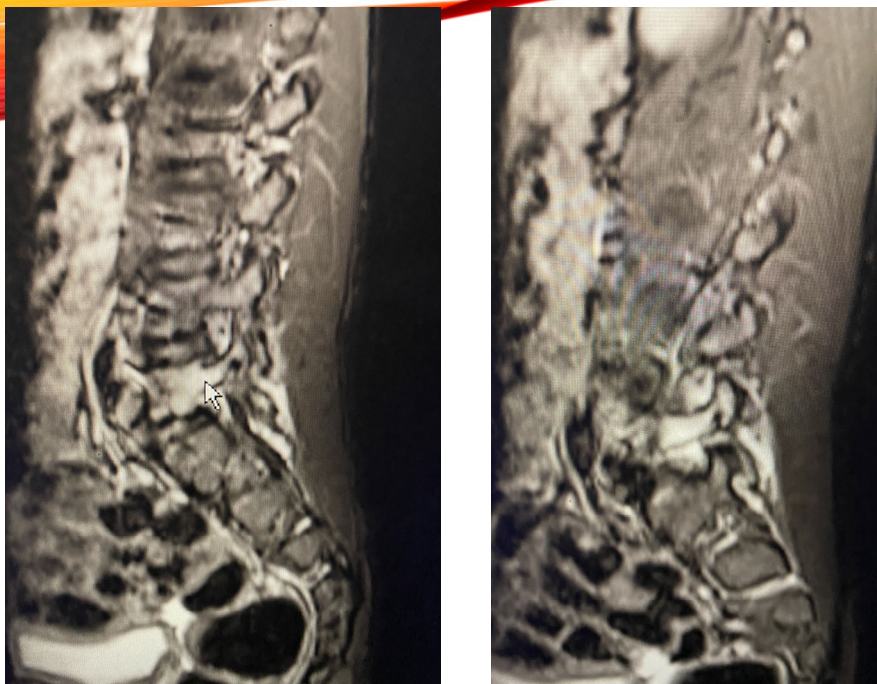
❖ Lumbar Exam

- **FROM** except extension limited to 20 degrees
- **Flexion & extension painful**
- **Stork testing:** L LBP pain with each leg
- **+ttp** over the L lumbar paraspinals L4-S1
- **Nttp** over SP
- **Neg SLR & slump testing**

WHAT DO YOU WANT TO DO NOW?

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CASE 1



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CASE 1

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CASE 1

- ❖ **Treatment: L L5 pedicle stress reaction**
 - **No arching or impact activities**
 - **Refer to PT**
 - **Ok to bike and swim if pain free**
- ❖ **f/u @ 4 wks**
 - **Less pain**
 - **Able to extend further (45 degrees) before pain onset**
 - **Continue PT**

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CASE 1

❖ f/u @ 8 wks

- No pain for the last two wks
- Pain free extension on exam; neg stork testing
- Weakness of g. medius but improving
- Ok to begin a slow 4 wk return to full wrestling

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CASE 2

❖ 13 yo healthy female soccer goalie w/ acute R hip pain

- Bent R knee to block a hard, close range shot
- Acute R anterior hip pain
- Unable to bear weight at all
- ER evaluation

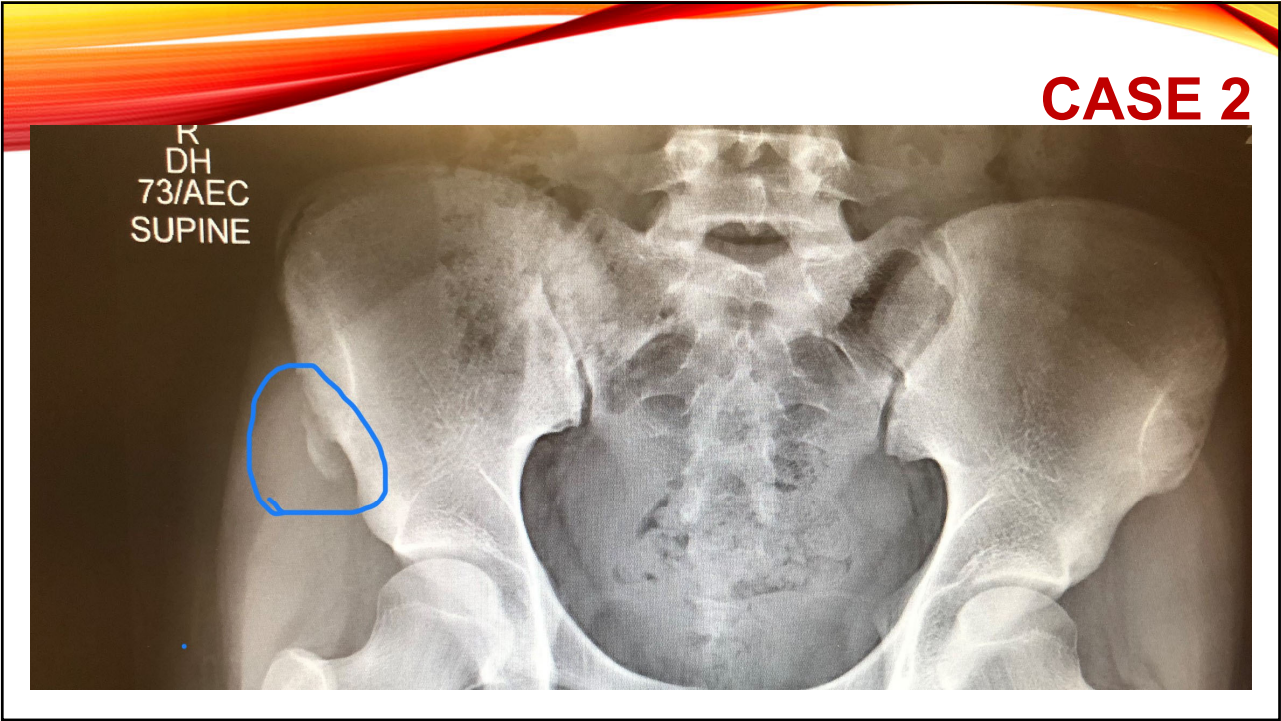
❖ Exam

- Limited due to pain
- Unable to flex hip joint
- +++ttp over the anterior R hip

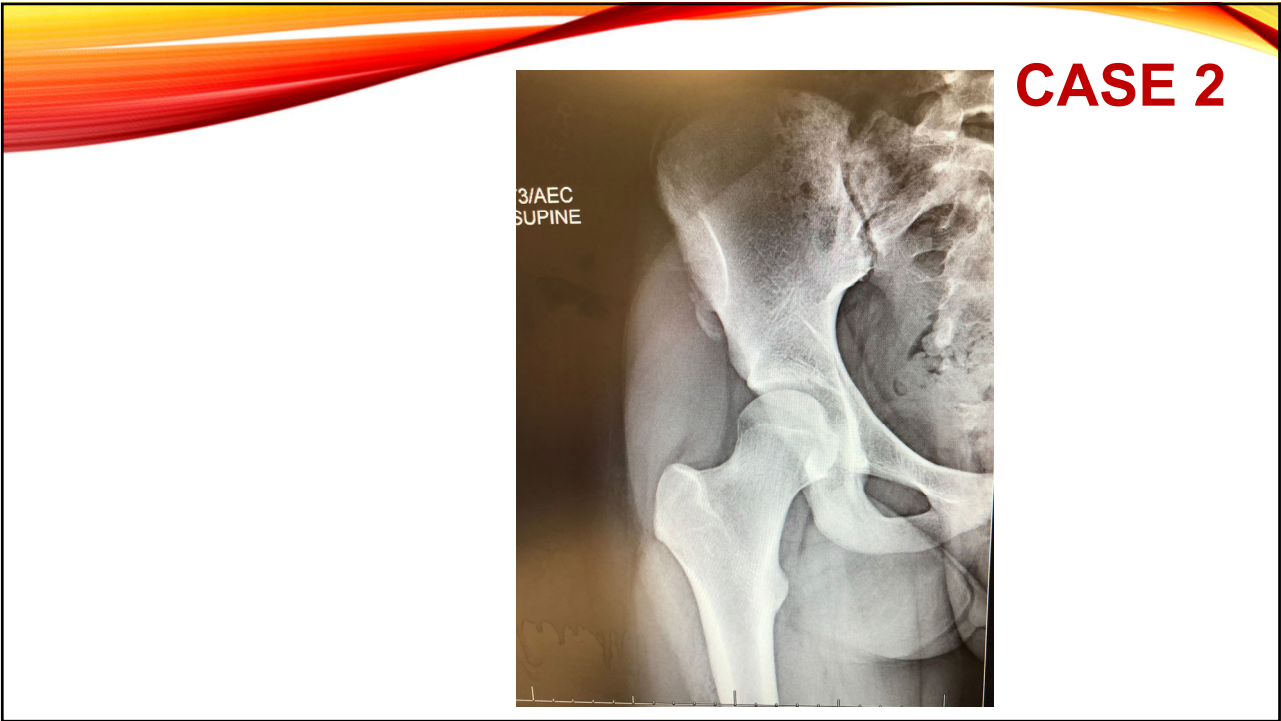
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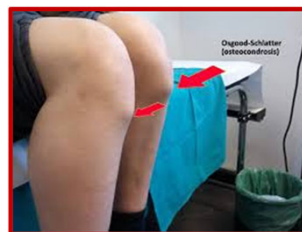
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APOPHYSIS

- ❖ **Secondary ossification center**
 - **Adds shape & contour to bone**
- ❖ **Site of tendon / ligament attachments**
- ❖ **Does not contribute to overall final height**
- ❖ **Numerous apophyses in the immature skeleton**
 - **Shoulder, elbow, wrist, spine, knee, hip, foot**
- ❖ **Acute or chronic injuries**



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Figure 1: Mary Albury-Noyes

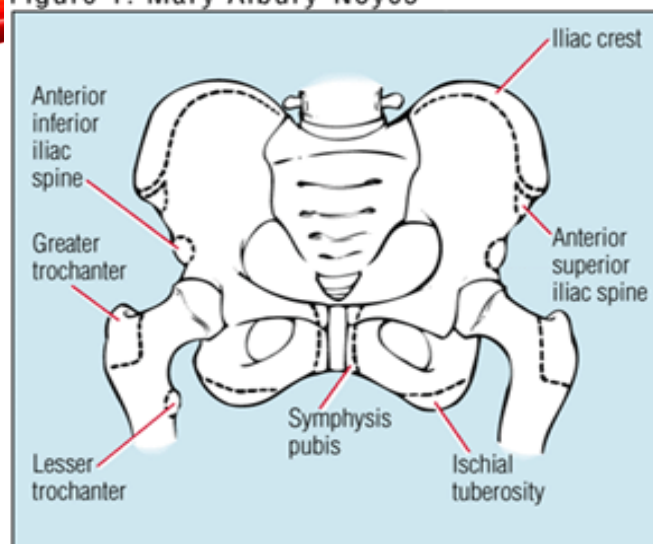


FIGURE 1. Locations of the apophyses of the hip and pelvis.

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CASE 2

❖ DX

- Displaced avulsion fracture of the anterior superior iliac spine (ASIS)

❖ Treatment

- Crutches
- NWB but progress to WB as tolerated
- PT
- Ice, OTC medications prn pain
- Repeat xrays showed good healing
- Return to full play in 4 wks

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CASE 3

❖ 12 yo RHD male baseball pitcher w/ 3 months of atraumatic R shoulder pain

- Pain is worsening; now pain w/ ADLs
- Took off “a whole week” but no change
- Feels it over the deltoid region
- Coach thinks it is a simple deltoid pull
- Can’t throw as fast or as accurate

❖ Parents worried about him getting behind

- Best pitcher on team
- Selected for an All-Star team

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CASE 3

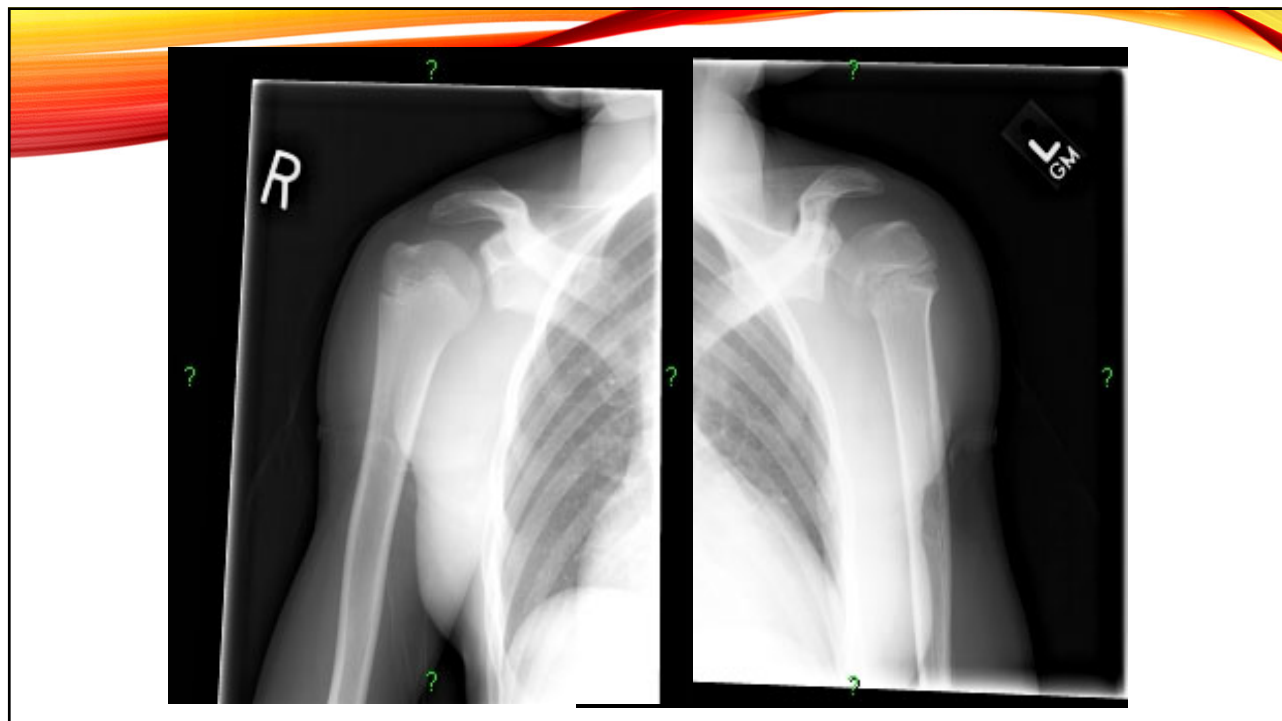
❖ PMH

- **Healthy; Takes OTC meds for pain**

❖ Exam

- **Poor posture**
- **R shoulder**
 - Only tender over the deltoid muscle
 - Abduction & flexion: 160 degrees
 - Strength 5/5 but painful
 - Neg Impingement Signs
 - No instability or labral signs
 - Shoulder blade mechanics abnormal on the RIGHT

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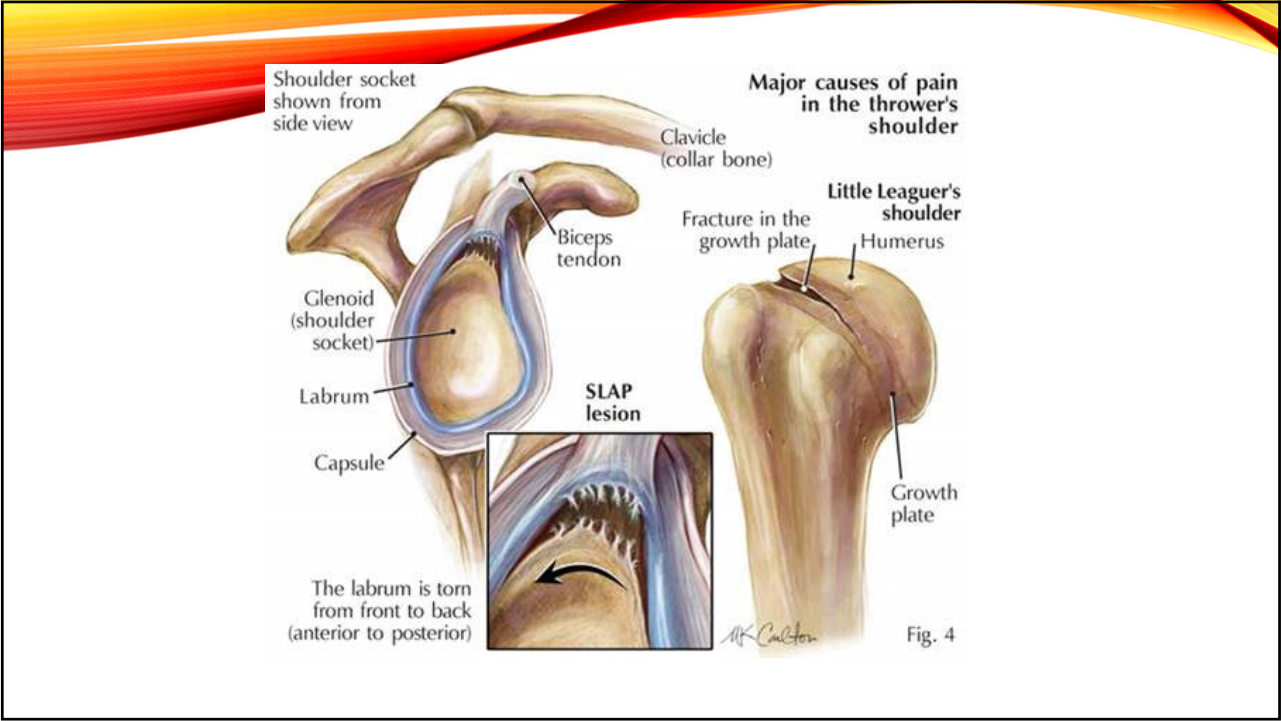


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LITTLE LEAGUER'S SHOULDER

- ❖ Proximal humeral physis stress fx
- ❖ Repetitive rotational microtrauma
- ❖ May represent a chronic Salter I fx
- ❖ High level male pitchers 11-13yo
 - **Gymnastics, tennis, softball etc**

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CHRONIC GROWTH PLATE INJURIES

Little Leaguer's Shoulder

Gymnast's Wrist

A photograph of a young baseball pitcher in a blue uniform, captured in the middle of a throwing motion on a baseball field. A "onebank 370-4566" sign is visible in the background.

An illustration of a gymnast in a pink leotard performing a handstand on a yellow balance beam. The beam is supported by two metal stands.

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LITTLE LEAGUER'S SHOULDER



- ❖ No throwing usually for 8-12 wks
 - **Consider reimaging**
- ❖ Assess for excessive throwing
 - **Extra practice**
 - **Multiple leagues**
 - **Other throwing sports**
- ❖ Correction of poor technique
- ❖ Most return to previous competitive level
- ❖ Preseason conditioning

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SUMMARY

- ❖ Pediatric athletes are not little adult athletes!
- ❖ Unique MSK injuries due to growth plates
- ❖ Overuse injuries are common in kids
- ❖ Assess for risk factors
- ❖ Early sports specialization may be problematic

Suzanne Hecht

- **310-902-3633 (cell)**
- **hecht031@umn.edu**

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