Low Back Pain in the Athlete

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When to Play and When to Sit

• Controversial
• Based on clinical/expert opinion
• Current literature will always support holding out
• When in doubt...sit
Indications for Radiographs

• 1994 Acute Low Back Pain Guidelines
  – Significant Trauma
  – Hx: Cancer
  – Fever (recent infection)
  – Neurologic Deficits
  – Older than 50 years old
  – Hx: Substance Abuse
  – Hx: Chronic Steroid Use
  – Pain with Rest
Case Number 1

15 year old soccer player with new onset left sided low back pain after kicking a penalty kick. No previous history of back pain. No radicular symptoms; No numbness. No B/B changes, fever, weakness. Feels fine otherwise. Improves with rest. Pain is sharp.

Exam: Negative
Case Number One

• Lumbar Strain
  – Rest
  – Ice
  – Core
  – NSAIDs
  – Not likely to return same day
  – Return when activity doesn’t recreate pain, no rest pain, and no ROM pain
  – Doesn’t usually need MD visit unless symptoms persist
Case Number 2

14 year old female volleyball player with acute onset right-sided low back pain after serving. No previous history. No radic, No N/T, No B/B, No weakness.

Exam: Negative. Pain reproduced primarily with extension.
Case Number 2

• Lumbar Spondylolysis
  – Rest until MD/XR visit
  – If workup negative then revert to lumbar strain tx
  – If positive:
    • Brace
    • No core until bracing period over
    • PT after brace
    • Gradual return to activity
    • Return with no rest pain and no ROM pain
Spondylolysis
Case Number 3

• 16 year old football player with acute onset low back pain radiating into right thigh after squats. Has had a history of mild LBP on/off without previous work-up. No N/T, B/B. Improves with rest.

• Exam: Pain reproduced primarily with bending and leg raises. No SLR. No weakness.
Case Number 3

• Lumbar Strain versus Lumbar HNP (herniation)
• Rest, NSAIDS, Core work
• MD visit under most circumstances

• Tx: Core work until pain free at rest, then gradual return.

• Recurrent episodes will necessitate MRI
Case Number 4

• 18 year old college softball player with gradual onset of left sided low back pain over several months. No injury. No radic. No B/B. No fever/weakness. No previous history. Pain most noticeable with sitting and gets better in general with most activities.

• Exam: Tender PSIS. FABERS reproduces low back pain.
Case Number 4

- Sacroiliac Joint Pain

- Core, Modalities, and gradual return to play

- If slow to progress MD/XR visit; consider injection
SIJ Pain

Sacroiliac Joint

ILIUM

SACRUM
Case Number 5

• 16 year old wrestler with acute onset low back pain after a match. Started right low back. Next day has pain radiating down his right leg to the top of the foot. He complains of slight numbness in the big toe. No B/B, No fever.

• Exam: Pain increases with bending. Positive SLR. No weakness.
Case Number 5

- Refer to MD; likely HNP
- Core; do not return until radiculopathy is gone. May need MRI depending on how he does.
HNP
Case Number 6

17 year old senior starting linebacker with low back pain and left radicular symptoms following a tackle. No N/T, No B/B. He had a radiculopathy last season, had negative XR’s and underwent PT and eventually returned by the end of the season. Symptoms feel similar to last year. He says he knows the exercises to do and wants to do them on his own so he can return by the next game. Does not want to see an MD because its his senior season and he can’t miss games.
Case Number 6

- Exam
  - Pain with bending
  - Denies SLR but grimaces
  - Looks like he is limping
  - No weakness detected
Case Number 6

- MD referral
- MRI for recurrent radiculopathy symptoms
- Need to look for cause of stenosis
Case Number 7

• 16 year old male hockey player with acute low back pain following a check and fall onto his back. No previous history. No B/B, F, Weakness, N/T. Pain severe. Pain at rest.

• Exam: Pinpoint moderate tenderness with palpation over the L2 spinous process. Increased pain with leaning forward. Patient unable to and doesn’t desire to return to play
Case Number 7

- Refer to MD/ER that day to rule out fracture
- If patient has endplate compression fracture will brace and be back at typically 6-12 weeks. Will need PT following period of bracing.
Fracture
What are the red flags we need to look for?

- Recurrent Symptoms
- Extension Based Pain
- Radiculopathy
- Numbness/Tingling
- Fever
- Weakness
- Asymmetric Reflexes
- Gait Abnormalities
- Any Bowel/Bladder function changes
What should we check for on an exam?

• ROM
• Palpation
• Gait (heel and toe walking)
• MMT
• Reflexes
• Sensation
• Special Tests

• Refer if abnormal neuro findings or extension based pain, or clear radiculopathy
• Also refer for more benign back symptoms that are not improving
When can they return to play?

- Pain free at rest
- Pain free ROM
- Pain free exercise and drills
- Slowly progress with sport specific drills/contact
- Then return to sport but continue HEP indefinitely
When should you send to the ER?

- Any Bowel/Bladder function changes
- Acute neurologic deficit (foot drop)
- Fever and LBP acutely
- Concern for acute fracture (pinpoint spine tenderness)
Conclusions

- Literature will always support you holding them out
- Refer if not getting better, you are worried, recurrent symptoms, or exam findings dictate
Thank You!