

NCAA Gymnastics NACGC/W Picture Examples

New Orleans, LA

May, 2014

OUTLINE

- 1- Got Your Back: Keeping College Spines Healthy
- 2- Smart Strength: Lessons for Conditioning Smarter... Not harder
- 3- Flexibility- New Ideas for Old Souls
- 4- Shin and Calf Breakdown: Why the Pain?
- 5- Working with your Athletic Trainers- How to Partner with the ATC who was not a Gymnast

1- Got Your Back: Keeping College Spines Healthy

- Tenets of Spine Health
- Potential diagnosis
- Athletes with spine issues- what to do
- Lingering Issues

2- Smart Strength: Lessons for Conditioning Smarter... Not Harder

- Aerobic/Anaerobic Conditioning
- Core strength
- Ankle/Lower Body

3- Flexibility- New Ideas for Old Souls

- Split Position
- Stretch Basics
- Strains- How to deal with them
- Leading to... Flexibility vs. mobility
- Top Stretches- continuations and additions

4- Shin and Calf Breakdown: Why the Pain?

- Muscle Review
- Pain differential diagnosis and Plan
- Other Concerns- body, nutrition
- Treatment options

5- Working with your Athletic Trainers- How to Partner with the ATC who was not a Gymnast

- Prepping your ATC
- Injuries- an entire body review of most popular college gymnastics, how to treat
- Traditional Treatment
- RICE/Ice discussion- reality!
- Gymnastics-specific concerns
- MD referral process
- Return from Injury

1- Got Your Back: Keeping College Spines Healthy

- Tenets of Spine Health
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A) Concept of the Arch

- Each individual piece of spine moves, like wings of the airplane stacked
- Hips extend
- Shoulder flex
- Rib cage tilts
- Ribs expand
- Abs stretch



B) Total Functional Motion (TFM)

- Available Range at each joint
 - Passively
 - Shoulders: supine overhead (EX)
 - Hips: true extension testing
 - Spine – goniometer measure
 - Actively
 - Shoulders: Prone Flexion test or wall overhead (EX)
 - Hip: Leg swing, standing arabesque, etc.

Lats



- Lats- Notice how broad they are
- This is why they help the spine to “lordose” or arch when the arm is moved up (see the humerus attachment?)

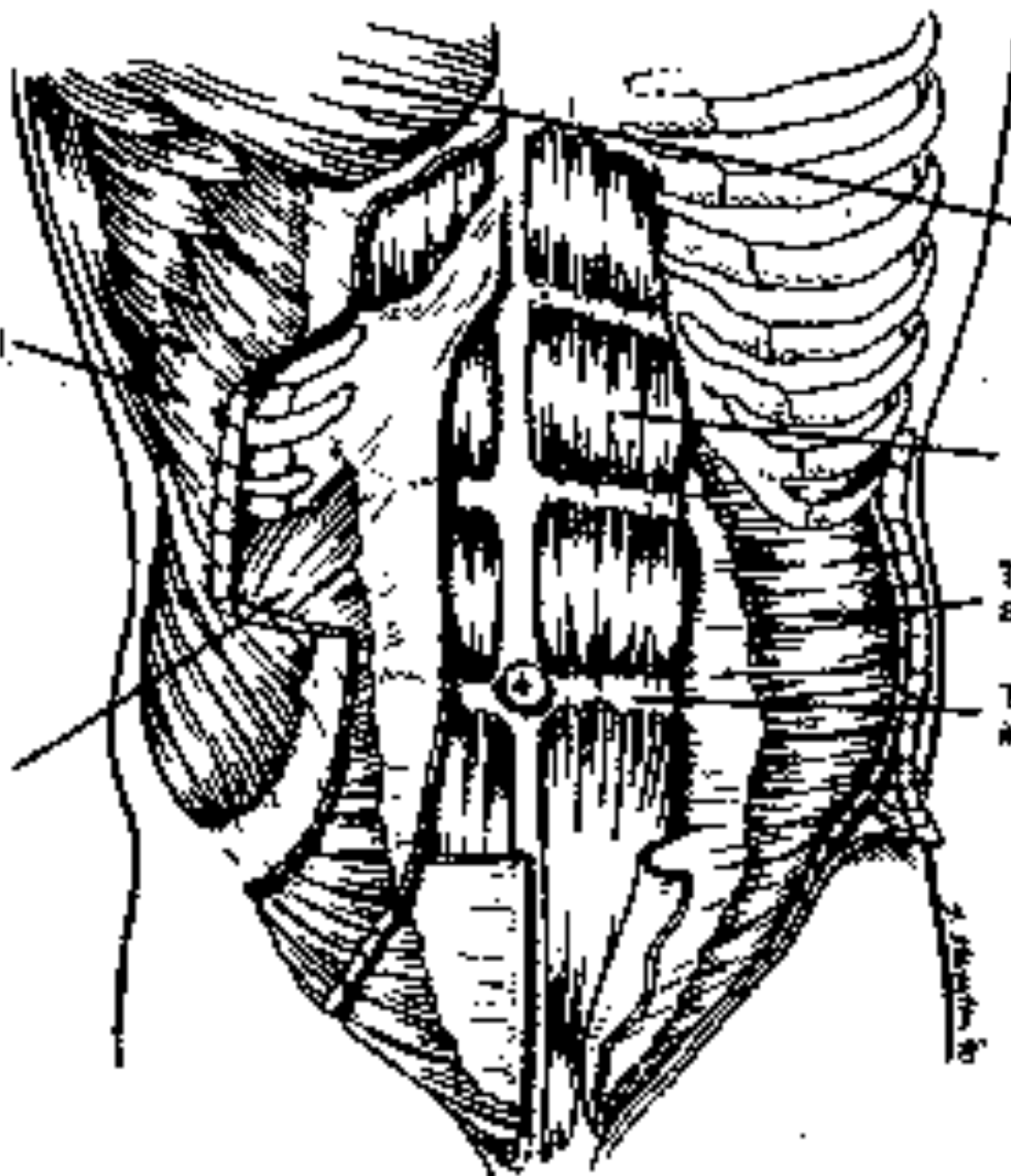
So, How do we Stretch?



Reserved.

External
abdominal
obliqua

Internal
abdominal
obliqua



Pectoralis
major

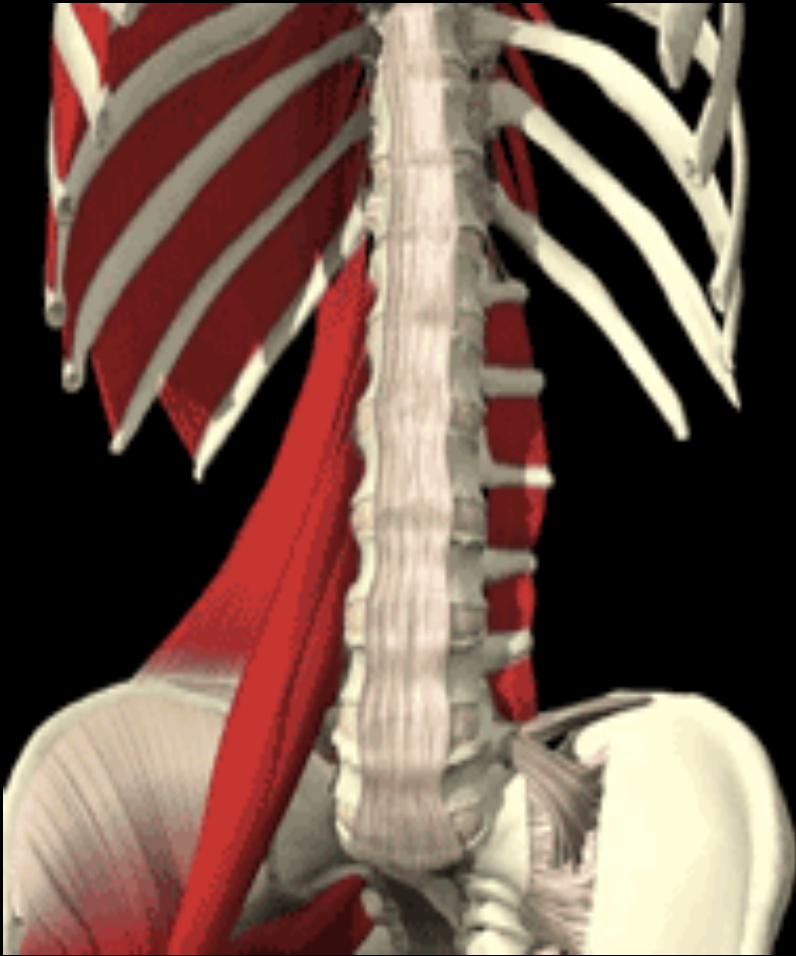
Rectus
abdominis

Transverse
abdominis

Tendinous
inscriptions

J. H. H. H. H. H.

Psoas



- Makes the hips ‘dump’ forward, or anteriorly rotate
- Butt out posture
- Very painful to touch

Standing Evaluation



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Supine Evaluation



Finally... The Handstand



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2- Smart Strength: Lessons for Conditioning Smarter... Not Harder

- Aerobic/Anaerobic Conditioning
- Core strength
- Ankle/Lower Body









Side plank “taps”



- Can also add tapping to the floor and back up again to work the muscle in motion
- Also adds work to the ribs and intercostals
- Allows stretch too

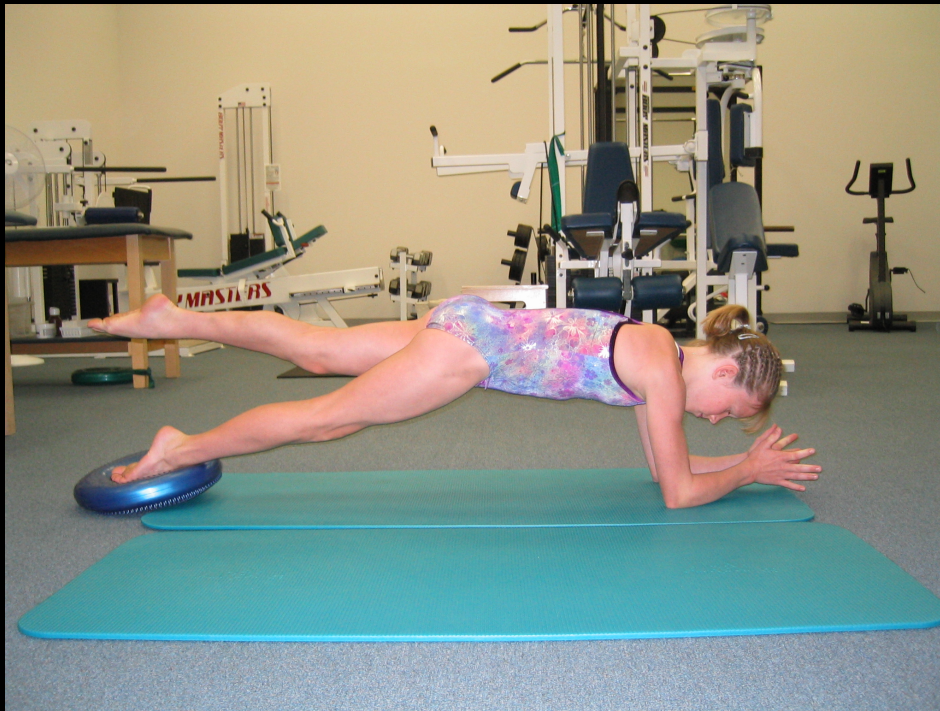
Lifting leg makes the 1) abductor of the bottom leg work harder
2) asks the body to balance



Just more progression to arm, should be done for W and M
pirouette training 2 years in advance, and M pommels



Prone with Unilateral leg lift



- Prone stability with single leg lift, important for coordinated strength necessary for running and leaping
 - 1) hip flexor, quad, and abs – lower leg
 - 2) Hip extensor, hamstring, glut of upper leg
- Running- need this “opposite training” for push off back leg and advancement of front leg
- Leaping- similar opposite pattern with abs to prevent spine buckling

Great for bars, works lats, serratus anterior, triceps,
glutes, spine extensors and abs
*a must for M on pommels and p-bars



3- Flexibility- New Ideas for Old Souls

- Split Position
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An Original
Progressive Skill Builder by
Mancino
FACTURING CO., PHILADELPHIA PA.





Wrist Flexibility

Straight elbow



Bent Elbow



4- Shin and Calf Breakdown: Why the Pain?

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**Tibialis Posterior
Muscle Belly**

**Tibialis Posterior
Tendon coming up to
merge with the
muscle
belly**





Barefoot Orthotic Pictures

Orthotic



Applying before tape



(Orthotics cont.)

Taping with CoFlex

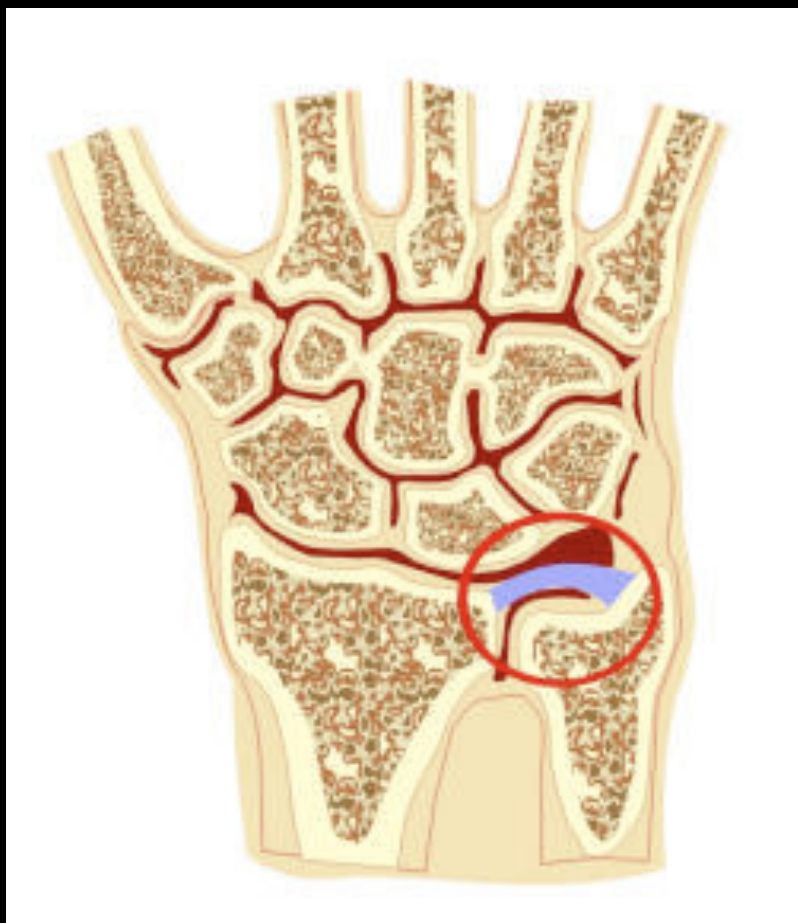


Completed

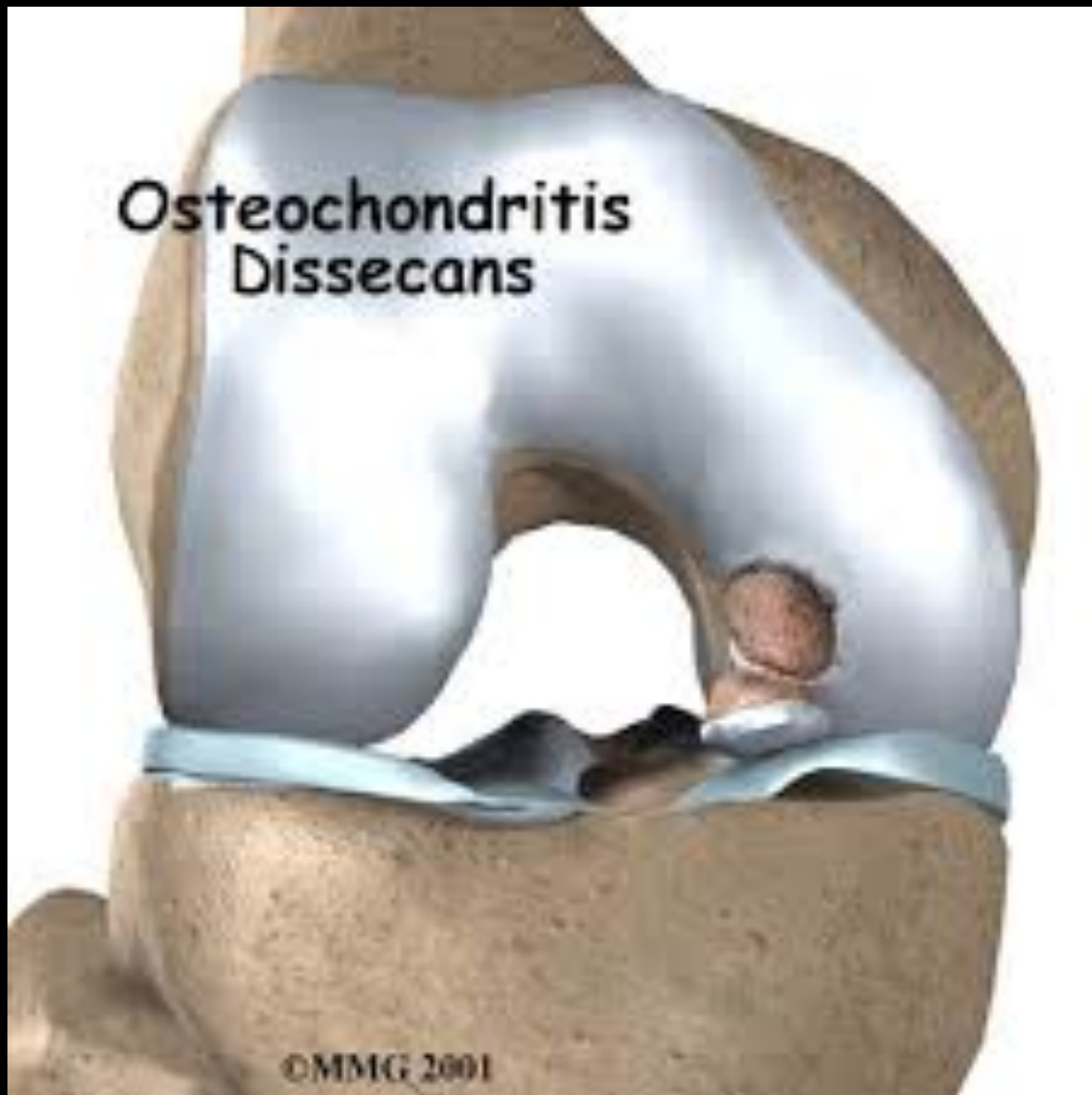


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Osteochondritis Dissecans



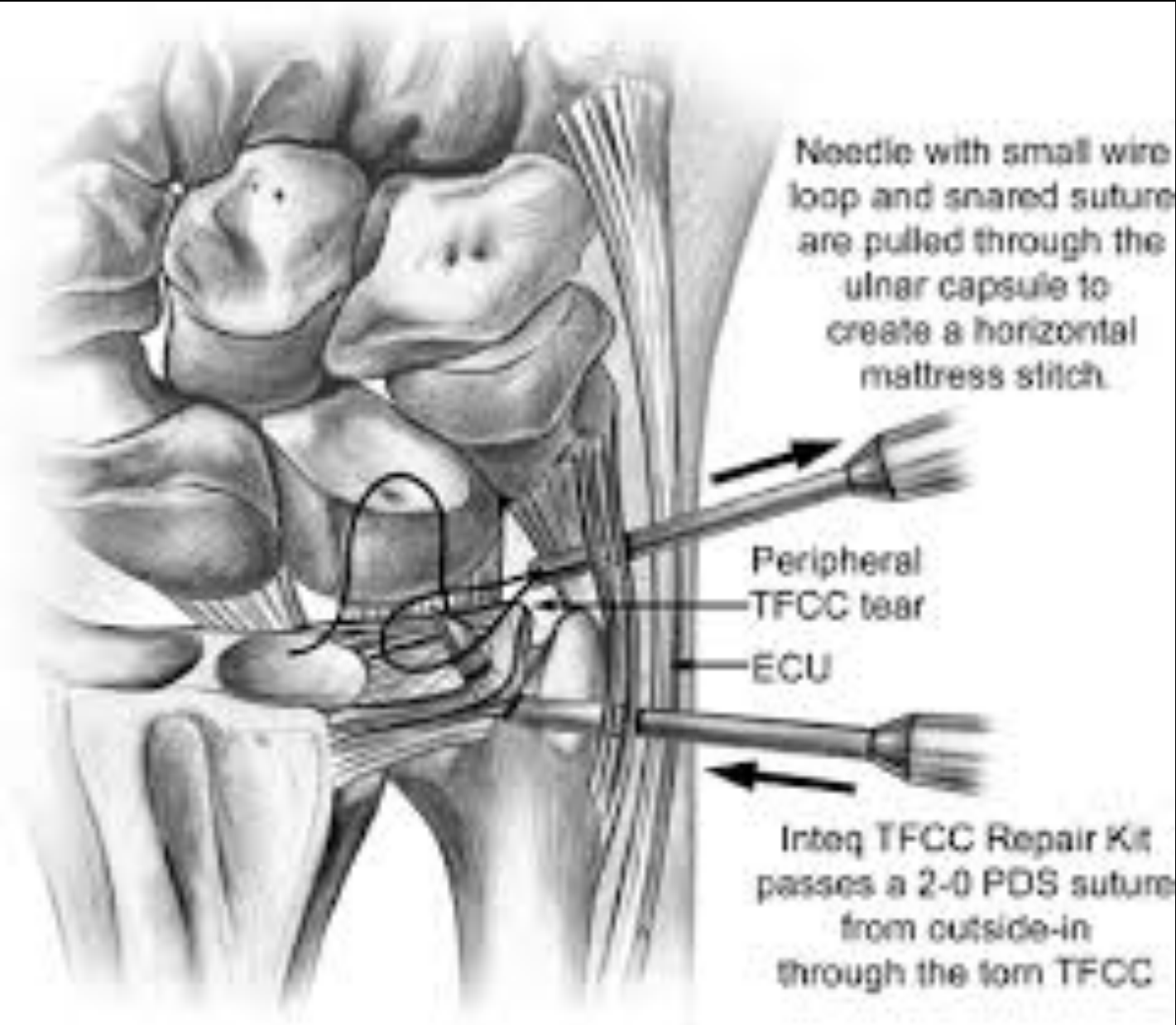
MRI image of OCD lesion



Xray of OCD
Lesion of Capitellum







Needle with small wire loop and snared suture are pulled through the ulnar capsule to create a horizontal mattress stitch.

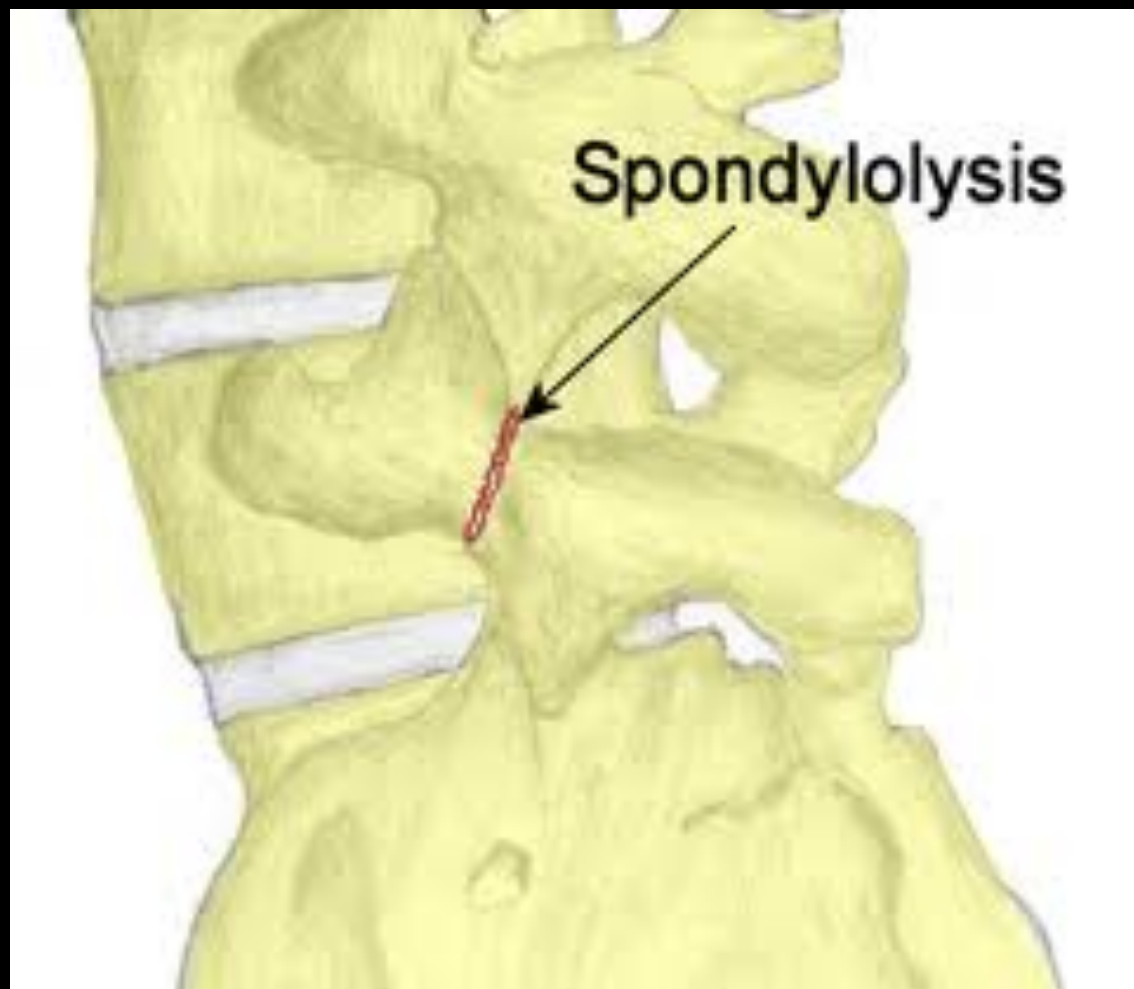
Peripheral TFCC tear
ECU

Inteq TFCC Repair Kit passes a 2-0 PDS suture from outside-in through the torn TFCC

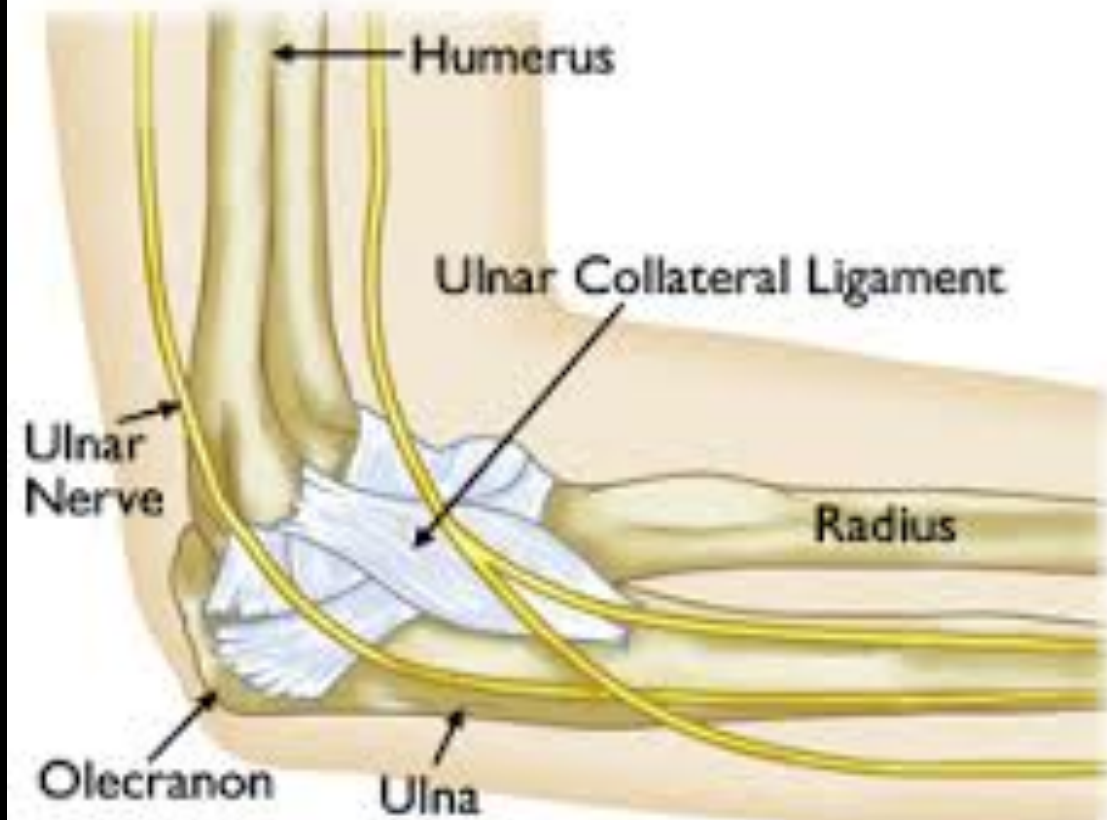


Spondylolysis

L5







Kinesiotape vs Pre-fab SpiderTech



