

Tolland Little League

*Safety Training  
for  
Coaches*

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**Updated by TLL Safety Officer David Yamarik 2014**

*Nayden Rehabilitation Clinic  
at the  
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# Safety Training

- Prevention
- Medical emergencies
- Musculoskeletal Injury First Aid
- Thrower's arm
  - Warm ups
  - Pitch counts
  - Warning signs

# Tolland Little League Info for Coaches

- First Aid kits
  - Every Field will have a complete medical kit in the shed or Jobox on site
- Every player must fill out Medical release forms
- Safety Manuals will also be in shed/Jobox
- Incident reports
  - If there is an incident, please contact the Safety Officer immediately after the game

# Coaches Responsibilities

- Ensure the First Aid kits at your field is available (i.e. not locked up)
- Medical release forms must be on site at all games and practices
- Safety Manuals – will be with the kits
- Strictly enforce Safety Rules

# Prevention

- Environmental
  - Hydration
  - Lyme disease
    - Insect repellent
    - Tick checks
    - Tick removal
  - Sunscreen
  - Field assessment
  - Lightning safety
    - If you can hear it, clear it\***
  - Parking lot safety
  - Stranger safety
- “One boy was killed and another injured when they were struck by lightning yesterday evening while playing baseball in [Spotsylvania County.](#)”
  - 6/4/200

\* National Lightning Safety Institute



# Prevention: Baseball Specific

- **NO on deck circle under 12**
- **NO thrown bats**
- **Enforce equipment rules**
  - **Pitcher warm ups**
  - **Mouth guards (recommended)**
  - **Athletic Supporter with protective cup**
  - **Face guards**
- **Supervision of kids**
  - **Control the bench!**
- **Emphasize proper skills**
  - **Sliding**
  - **Throwing**
  - **Pitcher follow through into fielding position**
  - **HBP – next slide has info on proper technique**



# Prevention: Hit By Pitch Technique

- Turn your back and head away from the pitcher and face the backstop
- Look up and pinch your shoulder blades together, so your neck is protected by your helmet and your spine is less vulnerable
- Touch the end of your bat the ground to avoid getting a foul ball – tell the kids to pretend they are turning to lay the bat down behind them
- You will end up facing the backstop with your head and bat down
- If you don't have enough time to get out of the way, simply turn your back to the pitcher and let the ball hit you in the back or the butt
- Emphasize turning so that only your back and butt are exposed. You have less nerve endings in your back and your butt is a soft target.

**TURNING TOWARDS THE PITCHER EXPOSES  
THE FACE AND CHEST...!!!**

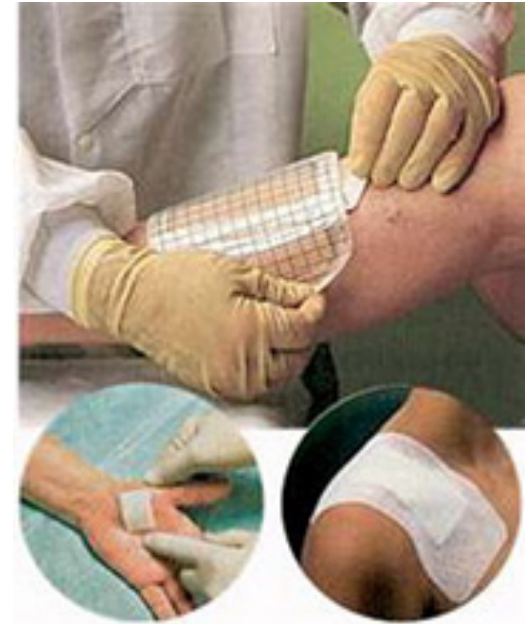
# Prevention: Baseball Specific

- Volunteer safety
  - Pitching screen
  - Helmets for base coaches
  - Lightning
    - IF YOU HEAR IT  
CLEAR IT
  - Umpires
    - Must wear all protective gear
- Rule changes
  - People wearing casts must remain in the dugout
  - Jr, Sr, softball players may wear metal cleats



# Emergency Care

- Wounds
  - Stop the bleeding
    - Direct pressure for 10 minutes – NO PEEKING!!!
  - Cleanse
  - Assess edges of wound - stitches?
  - Cover with dressing
    - Antibiotic ointment
    - Gauze pads
    - Tape
    - Gauze roll
  - Nosebleed
    - Pack with gauze



# Emergency Care

- Cardiac arrest
  - Comotio cordis: “concussion of the heart”
    - AED
- Respiratory Arrest
  - Choking
    - Absent cough, can’ t speak
    - Heimlich maneuver
- Asthma
  - Cough, wheezing, trouble breathing
    - Medication
    - Reassurance – try to calm child down, as they will panic

**WHEN IN DOUBT CALL 911**

# CONCUSSION - What is it?

- “Complex physiological process induced by trauma from biomechanical forces”
- Caused by direct blow or impulsive force
- May or not involve loss of consciousness
- Involves neurological impairment
- Post-concussive symptoms may persist
- Simple concussion
  - Progressively resolves over 7-10 days
- Complex concussion
  - Persistent neurological symptoms with exertion
  - LOC greater than 1 minute
  - Multiple concussions
- ALL CONCUSSIONS require medical evaluation

# Concussion Signs and Symptoms

- Cognitive signs:
  - Loss of consciousness
  - Confusion
  - Amnesia
  - Unaware of score, game
- Physical signs
  - Loss of balance
  - Slurred speech
  - Seizure
  - Delayed responses
  - Vacant stare
  - Poor play
- Symptoms
  - Nausea/vomiting
  - Headache
  - Dizziness
  - Vision/hearing disturbance
  - Irritability/emotional changes

**If you suspect a concussion, consult the checklist on the next slide. Copies of this list will be with the F.A. Kits.**

# Concussion Checklist (for reference)

Signs observed by coaching staff	Symptoms reported by athlete
<input type="checkbox"/> Appears to be dazed or stunned	<input type="checkbox"/> Headache
<input type="checkbox"/> Is confused about assignment	<input type="checkbox"/> Nausea
<input type="checkbox"/> Forgets plays	<input type="checkbox"/> Balance problems or dizziness
<input type="checkbox"/> Is unsure of game, score, or opponent	<input type="checkbox"/> Double or fuzzy vision
<input type="checkbox"/> Moves clumsily	<input type="checkbox"/> Sensitivity to light or noise
<input type="checkbox"/> Answers questions slowly	<input type="checkbox"/> Feeling sluggish
<input type="checkbox"/> Loses consciousness (even temporarily)	<input type="checkbox"/> Feeling "foggy"
<input type="checkbox"/> Shows behavior or personality change	<input type="checkbox"/> Change in sleep pattern
<input type="checkbox"/> Forgets events prior to hit (retrograde)	<input type="checkbox"/> Concentration or memory problems
<input type="checkbox"/> Forgets events after hit (anterograde)	

## On-field Cognitive Testing

**ORIENTATION:** Ask the athlete the following questions.

<input type="checkbox"/> What stadium is this?	<input type="checkbox"/> What month is it?
<input type="checkbox"/> What city is this?	<input type="checkbox"/> What day is it?
<input type="checkbox"/> Who is the opposing team?	

**ANTEROGRADE AMNESIA:** Ask the athlete to repeat the following words.

- Girl, dog, green

**RETROGRADE AMNESIA:** Ask the athlete the following questions.

<input type="checkbox"/> What happened in the prior quarter/period?	<input type="checkbox"/> What was the score of the game prior to the hit?
<input type="checkbox"/> What do you remember just prior to the hit?	<input type="checkbox"/> Do you remember the hit?

**CONCENTRATION:** Ask the athlete to do the following.

- Repeat the days of the week backward (starting with today).
- Repeat these numbers backward:  
     63      (36 is correct)  
     419     (914 is correct)

**WORD LIST MEMORY:** Ask the athlete to repeat the three words from earlier.

- Girl, dog, green

**NEUROLOGICAL TESTING** (from Sports Concussion Assessment Tool)

- Speech:** Slurring of words
- Arm Drift:** Ask athlete to stand with arms out front and parallel to the floor, palms down. Then, ask athlete to close eyes while in this position. Does one of their arms drift out of the position? A change is abnormal.
- Sport Related Movements:** Ask athlete to repeat sports related movements – run, jump, cut, catch, etc. Any inability to perform these movements is abnormal.

**Any failure should be considered abnormal. Consult a physician following a suspected concussion. Athlete must wait 15 minutes to return to play even if all findings are negative.**

# When a player shows ANY symptoms or signs of a concussion:

- The player should not be allowed to return to play in the current game or practice.
- Contact Parents/Guardians immediately.
- The player should not be left alone; and regular monitoring for deterioration is essential over the initial few hours following injury.
- The player should be medically evaluated following the injury.
- Return to play must follow a medically supervised stepwise process.
- A player should never return to play while symptomatic.  
'When in doubt, sit them out!'

**“When in doubt, sit them out!”**

# Prague International Symposium on Concussion in Sport (2004)

## Return to Play Recommendations

- **Following concussion:**
  - **1. Removal from contest following and signs/symptoms of concussion.**
  - **2. No return to play in current game**
  - **3. Medical evaluation following injury**
  
- **Stepwise return to play**
  - a. No activity: physical AND mental rest until asymptomatic
  - b. Light aerobic exercise
  - c. Sport-specific training
  - d. Non-contact drills
  - e. Full-contact drills
  - f. Game play

# Emergency Care

- Neck injury
  - Stinger
    - Pain in neck and arm, numbness and tingling in arm, weakness in arm
      - Rest until function returns
  - Possible neck fracture
    - Numbness/tingling or loss of feeling in extremities,
    - neck pain
    - inability or reluctance to move
      - Stabilize neck and call 911: **DO NOT MOVE PLAYER**



# Emergency Care

- Eyes
  - Injury to eye
    - Cover both eyes and transfer to hospital
      - Eye pad
      - Gauze roll
    - DO NOT remove objects from eye
  - Injury to orbit
    - Cover eye and transfer to hospital
    - Concussion?
- Did you know? ***Baseball is the leading cause of eye injuries in athletes under the age of 14 in the USA.***

# Emergency Care

- Injuries to the mouth
  - Teeth
    - Save tooth and transport in milk or wrap in gauze and place between player's cheek and gum
    - IMMEDIATE referral to dentist
  - MOUTHGUARDS – recommend them, especially for batting and pitching

\*\* Cameron et al, 1997

# Heat Illness: Prevention

## US Soccer Federation Guidelines\*

- **12-16 oz. fluid 30 minutes before game**
- **Every 20 minutes during game**
  - **<90 lbs. 5 oz.**
  - **>90 lbs. 9 oz.**
- **Every 20 minutes for 1 hour after game**
- **Sports drinks increase voluntary drinking by 90% in kids**

## Signs of dehydration

- **Excessive thirst**
- **Dry lips and tongue**
- **Irritability**
- **Lethargy**
- **Dizziness**
- **Nausea**
- **Vomiting**
- **Muscle cramping**
- **Red, flushed face**

\*Adapted from the American Academy of Pediatrics

# Heat Illness Emergency Care

- **Heat injury/illness**

- **Heat Cramps**

- Muscle cramps (calf, abdominals)
    - Hydrate, rest, COOL, massage cramping muscles

- **Heat Exhaustion**

- Heavy perspiration
    - Pale, cold, clammy skin
    - Nausea, vomiting, collapse
    - Hydrate, rest and remove from play, COOL

- **Heat Stroke**

- Red, hot, dry skin; altered mental status; LOC; Rapid, thready pulse
    - MEDICAL EMERGENCY: CALL 911
    - COOL ONSITE IN AN ICE WATER TUB or with ice, cold towels, water spray
      - Cool to a rectal temp of 103.5 before transport

- **MORE PLAYER SUBSTITUTIONS!!**

# Emergency Care

- **Allergy**
  - **Bee stings**
    - **Epi-pen**
  - **Food allergy**
    - **Child must bring own snack or clear snack with parent first**
  - **Review all Medical Eval forms prior to season**
- **Illness**
  - **Diabetes**
    - **Disorientation, erratic behavior, fatigue**
  - **Fever**
    - **More vulnerable to dehydration**
  - **Encourage Parents to “fill you in” whenever there is anything that might affect their play**

**Review Medical Evaluations Prior to First Practice.**

# Musculoskeletal Injury First Aid

- Contusion (bruise)
  - Protection, Rest, Ice, Compression, Elevation , Support(PRICES) if contusion to thigh or upper arm restricts knee/elbow range of motion



- PRICES applied
  - **WET** elastic wrap
  - Ice pack- 15'
  - Continue elastic wrap
  - Elevate 18" above heart level
- Player will be impaired for approximately 30' following ice treatment.
- Bag of ice is more effective than ice pack
- 30-60 minutes between repeated bouts of ice for first 24-48 hours after injury
- Return to play depends on severity (2-3 weeks to 8 weeks)

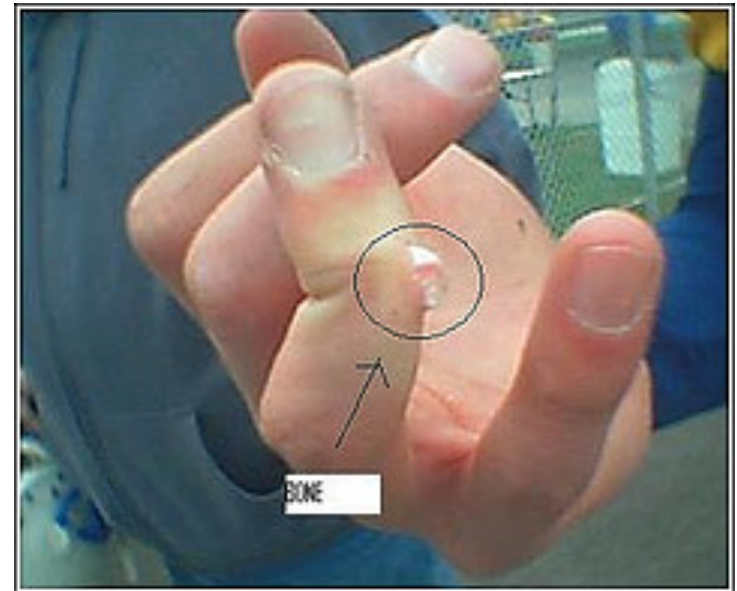
# Musculoskeletal Injury First Aid



- Sprain
  - Injury to ligament
  - Joint swelling, loss of motion, pain, tenderness at joint
- Strain
  - Injury to muscle or tendon
  - Pain with resistance or stretch, weakness
- Treatment: PRICE
- Referral to physician if:
  - Unable to bear weight on lower extremity
  - not improving in 2-3 days

# Musculoskeletal Injury First Aid

- Fracture
  - Pain, swelling, DEFORMITY, restricted joint motion, pain with weight bearing, loss of function
  - Splint and transfer to hospital
    - 911 if open fracture or fracture of large bone
- Dislocation
  - Traumatic disruption of the normal alignment of the joint usually involving ligament tear
    - Deformity, loss of motion, severe pain
    - Splint and transfer for X-ray and reduction
    - DO NOT ATTEMPT TO REDUCE





# Splinting



# Return to Play following injury

- Lower extremity injury
  - Full, painfree range of motion of joints
  - Run without limp/pain
  - Stop/start, cut
- Upper extremity injury
  - Full range of motion in joints
  - Throw without pain
  - Interval throwing program

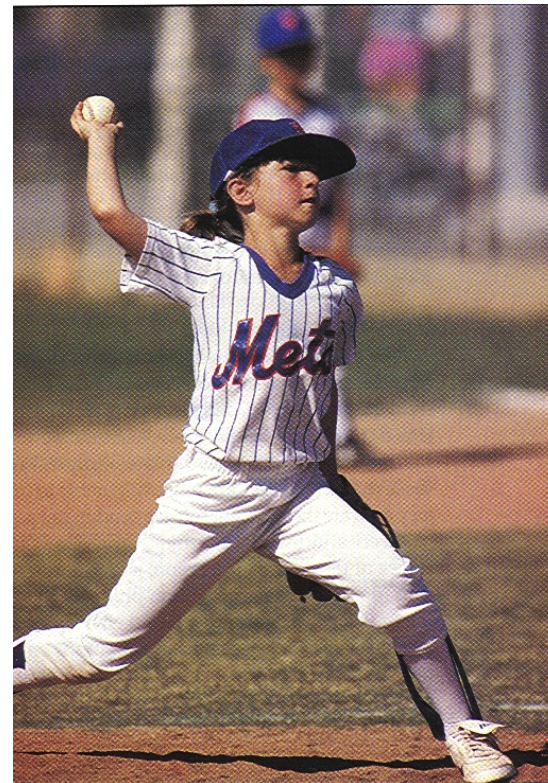
# Emergency Plan

- Assess player status
- Can player be safely moved?
- Designate a person to call 911
- Send someone to direct the ambulance
- Review Medical Release form for pertinent information and have available for EMTs
- If parents are not available, go with the injured player and turn over team to asst. coach
- Complete incident report and forward to Safety Officer within 24 hours
- Get medical clearance before return to play if formal treatment was required

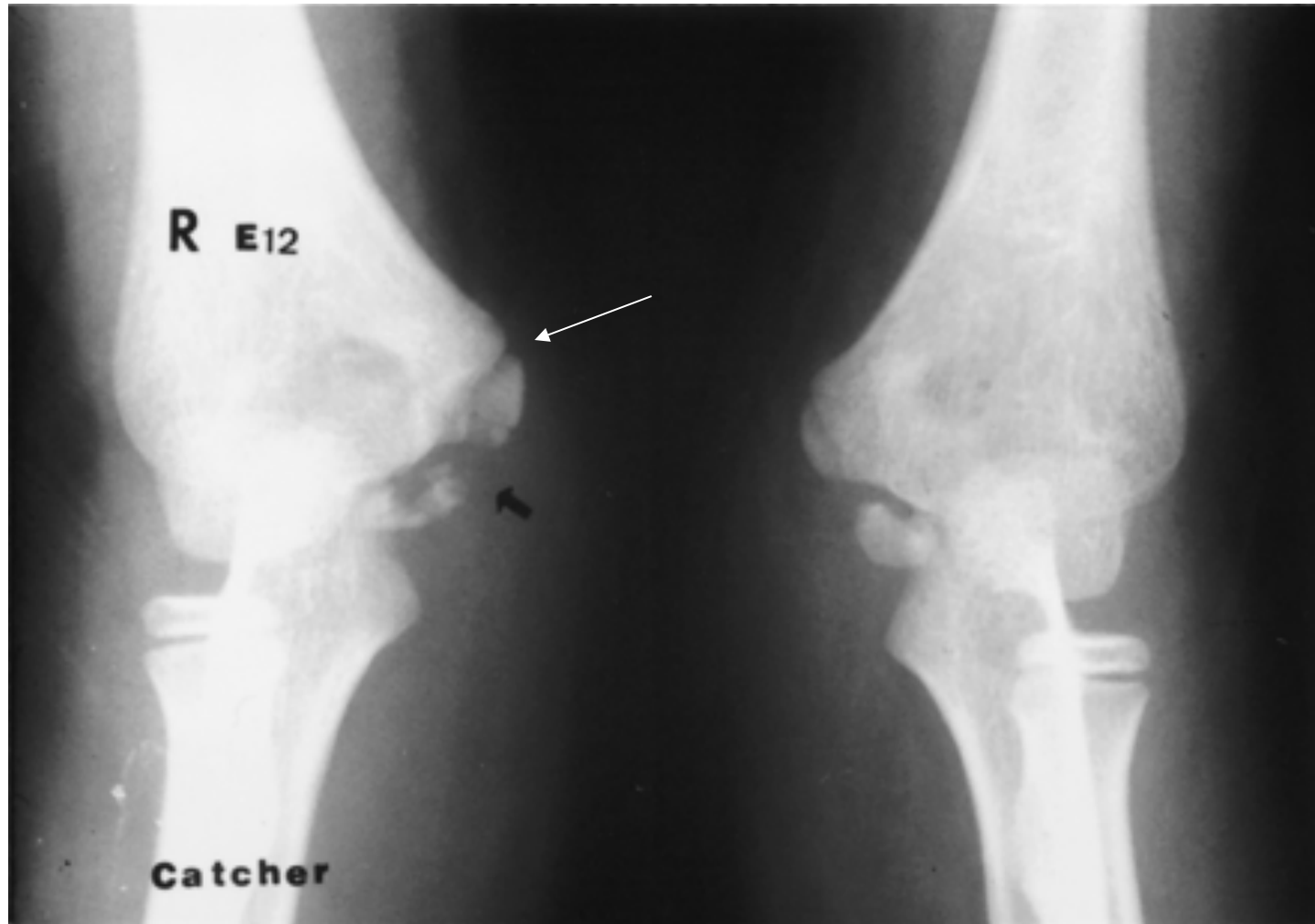
WHEN IN DOUBT CALL 911!

# Thrower's Injuries: Elbow

- “Little League Elbow”
  - Growth plates
  - Gradual worsening medial pain
  - Swelling
  - Loss of extension
- Ulnar neuropathy
- Ulnar collateral ligament sprain/rupture
- Osteochondritis dissecans



# Elbow Injuries: Little League Elbow



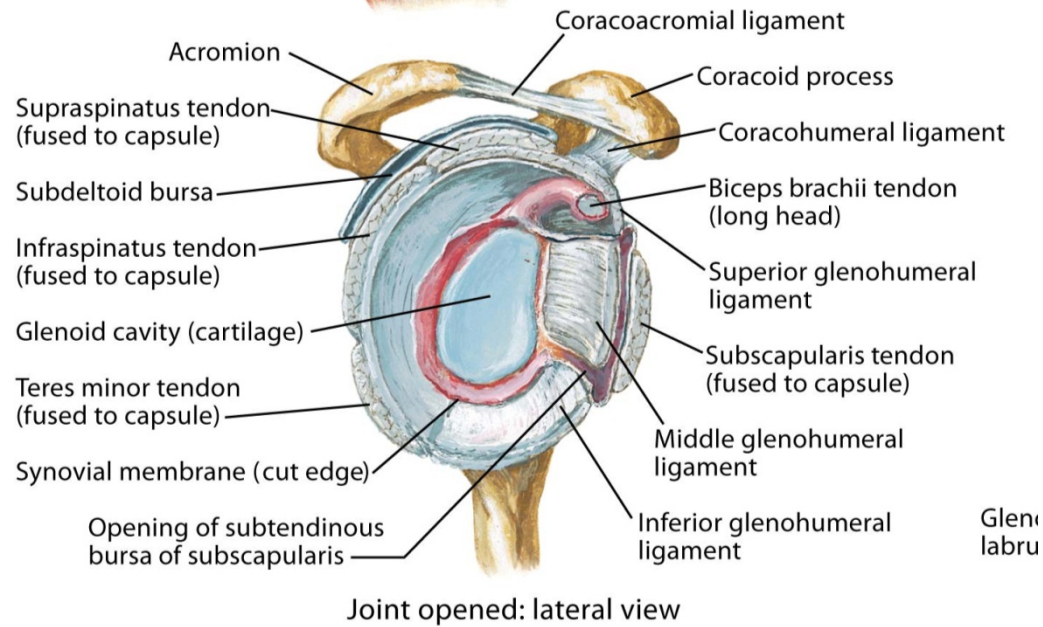
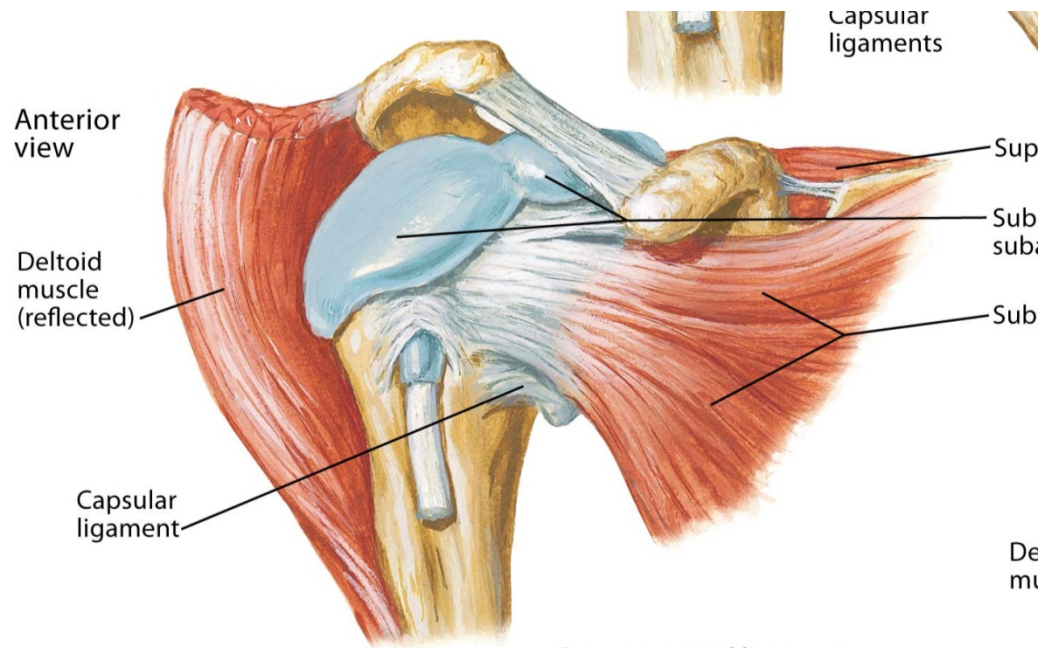
# Osteochondritis Dissecans



# Shoulder

- Shoulder laxity
  - Rotator cuff impingement
  - Rotator cuff tendinitis
  - Labral tears
- 
- External rotation is increased 7-10° in pitchers vs. non-throwing arm and position players

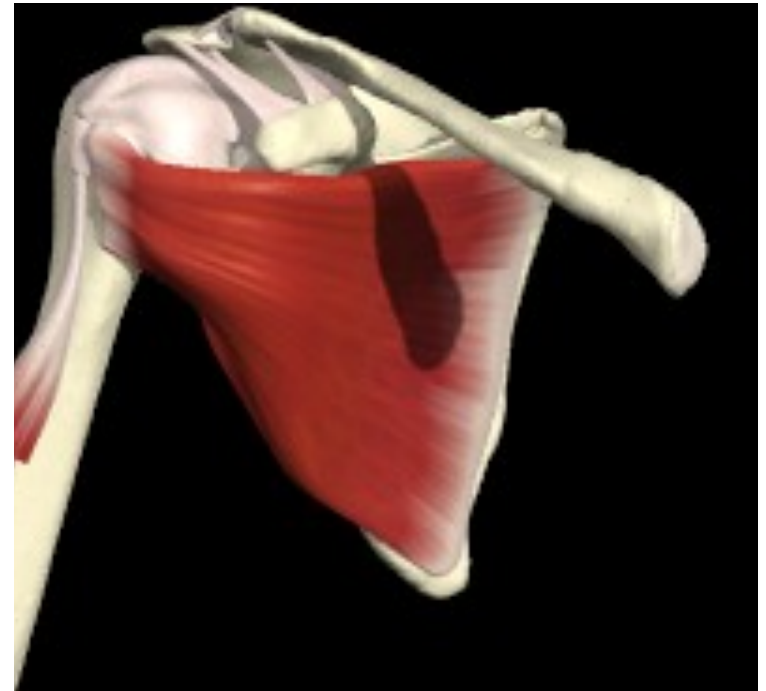






# Prevention of throwing injury

- Conditioning
  - Flexibility,
  - core stability
  - strength and dynamic stability of throwing arm
  - interval throwing program
- Mechanics
- Proper coaching
  - Restriction on pitch counts and innings pitched
  - NO curveballs prior to age 14



# Curveballs?

- 197% increase in shoulder injuries with curve balls (Lyman 1998)
- 86% increased risk of elbow pain with slider
- 12% decrease in elbow and 29% decrease in shoulder pain with change up
- *“While there is no medical evidence to support a ban on breaking pitches, it is widely speculated by medical professionals that it is ill-advised for players under 14 years old to throw breaking pitches.” -  
---Stephen Keener, CEO Little League International*

# Softball pitching

- 90% of pitchers requiring surgery were the only pitcher on their high school team
- Distraction forces on the shoulder reach 80% of body weight (Werner 2005)
- Speed of movement is up to 5000°/sec (Fleisig 2005)

- Late 1980s
  - all of the pitchers on the University of California's softball team were taking Advil three times a day just to be able to pitch
- 1989
  - 20 of 24 college pitchers surveyed had an injury that kept them from playing (Werner)
- 1991
  - 31 inning college game
  - 1 pitcher each team

# Labral tears



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# Softball:

## Recommended max pitch counts\*

- Under 12 years old
  - 60 pitches
  - 1 day rest
- 13-15 years old
  - 80 pitches
  - 1 day rest
- 16 and older
  - 100 pitches
  - 1 day rest

\*Werner 2005

Tulane Sports Medicine Institute

# Protecting Young Arms

- Is the pitcher losing his/her effectiveness?
- Is he/she still controlling his/her pitches?
- Has his/her velocity dropped (no longer popping the catcher's mitt)?
- Are his/her mechanics breaking down?
- Is he/she complaining of sore, tired arm or localized pain?

# Pre-game routine

- Warm up: jog/bike 3+ minutes
- Light stretch and warm up exercises
  - Shoulder stretches
    - Inferior and posterior cuff
  - Dynamic warm-up
- Throwing program
  - Short to long
  - Low intensity to high intensity



# Packets

- Safety Manual
  - Coaches Code of Conduct
  - Safety Code of Conduct
  - Player Accident Report
  - Medical Release Form
- Insurance Forms
  - [www.Tollandlittleleague.org](http://www.Tollandlittleleague.org)
  - [www.Littleleague.org](http://www.Littleleague.org)

# *PLAY IT SAFE*

- Safety Officer 2014: David Yamarik
- Phone: 860-871-2778
- Email questions to: [david.yamarik@gmail.com](mailto:david.yamarik@gmail.com)

Thank you for your attention!