

**Proper Throwing Mechanics,
Player Safety, and Injury Prevention
for the Youth Baseball and Softball Player**

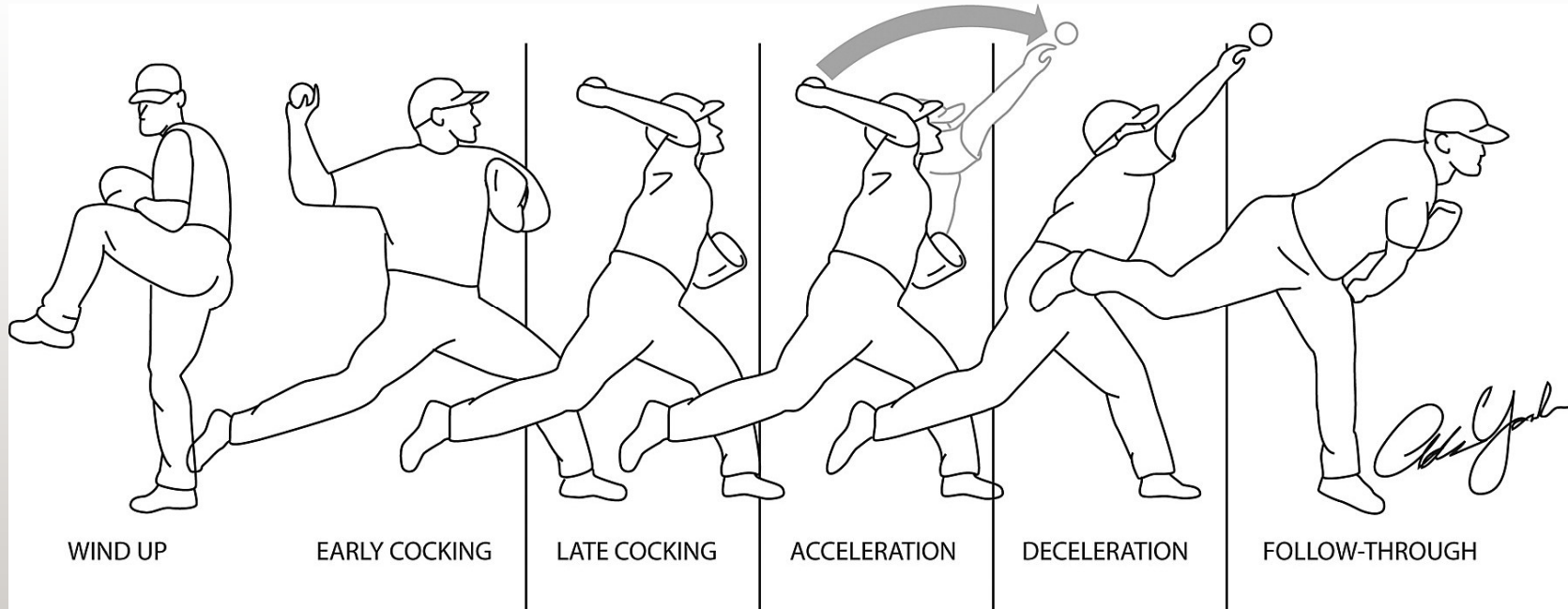


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PHYSICAL THERAPY

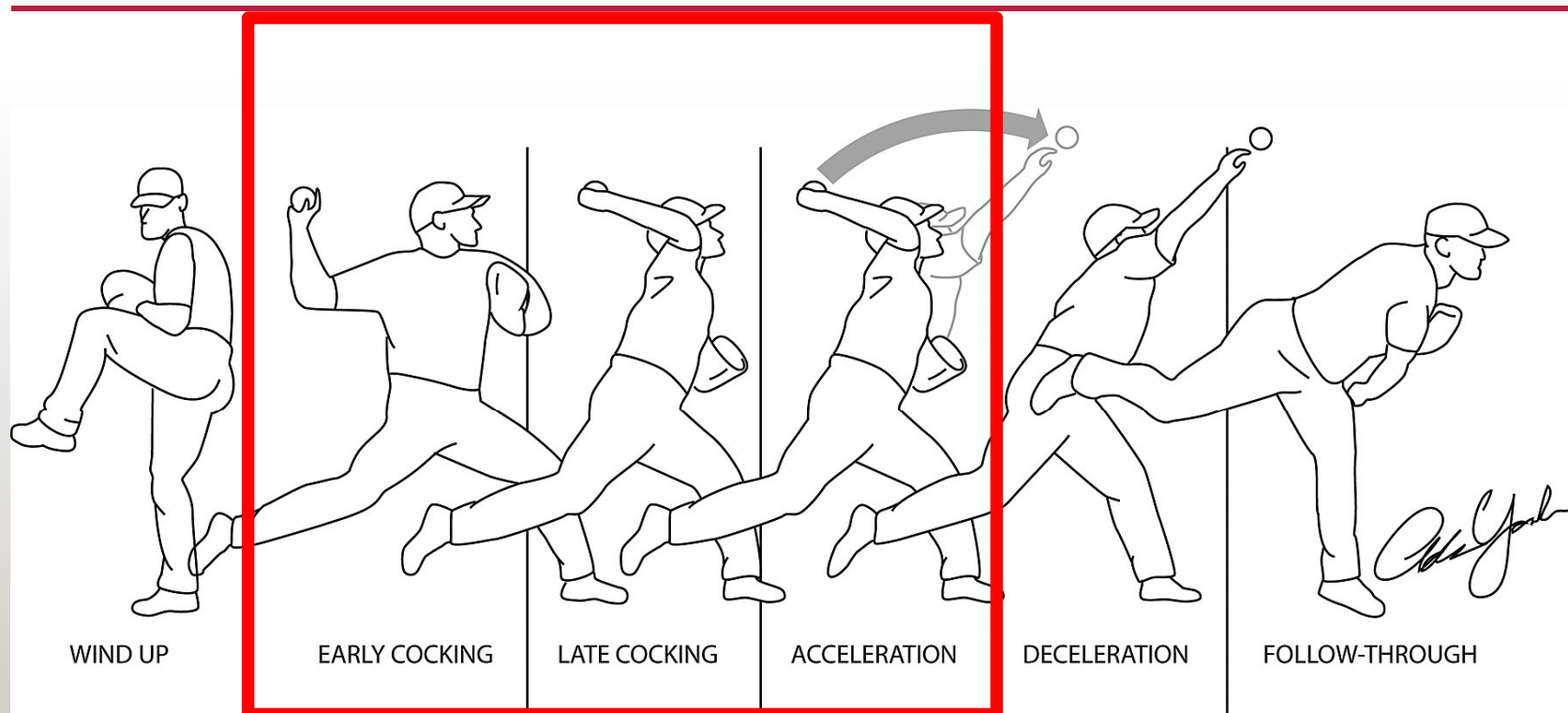
WHAT ARE THE GOALS FOR TODAY?

- Provide education on biomechanics of throwing for the youth athlete
- Present drills and practice ideas to reinforce proper throwing
- Discuss safe exercises for a healthy shoulder
- Injury prevention and signs of injury for the youth athlete

BREAKING DOWN THE PITCH



BREAKING DOWN THE PITCH



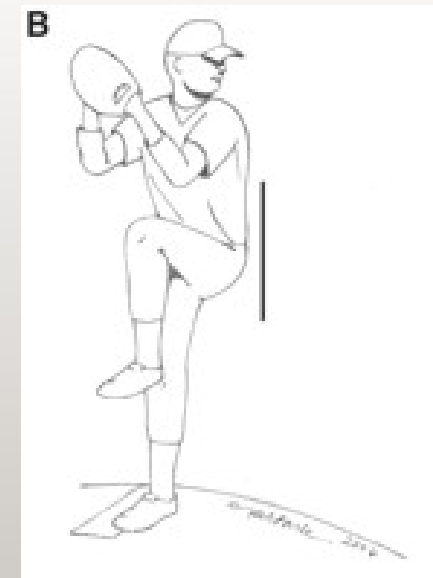
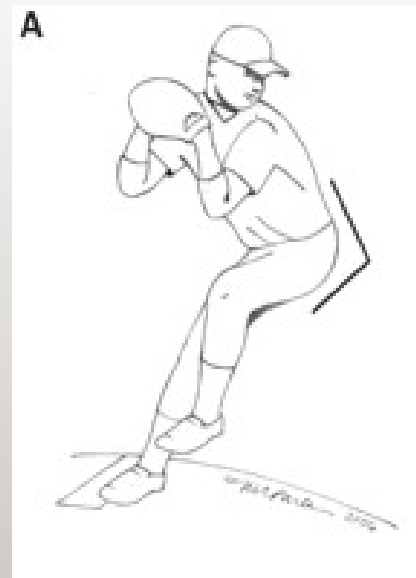
5 FACTORS TO REDUCE STRESS

- **LEAD WITH HIPS**

- Not a common mistake for the youth athlete



#1



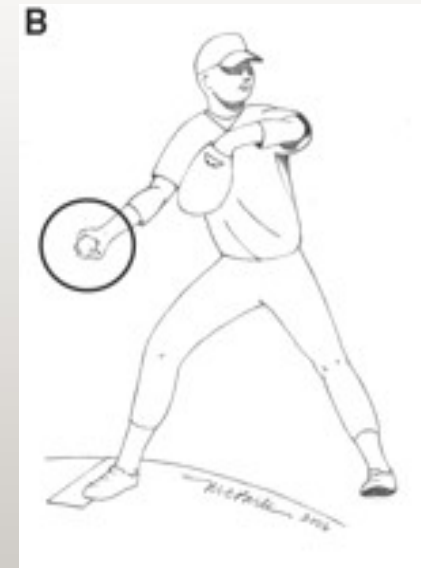
5 FACTORS TO REDUCE STRESS

- **HAND ON TOP**

- Allows for the elbow to be in the correct position in wind up and early cocking phase



#2



5 FACTORS TO REDUCE STRESS

- **ELBOW UP**

- As acceleration phase starts, the elbow should be up



#3

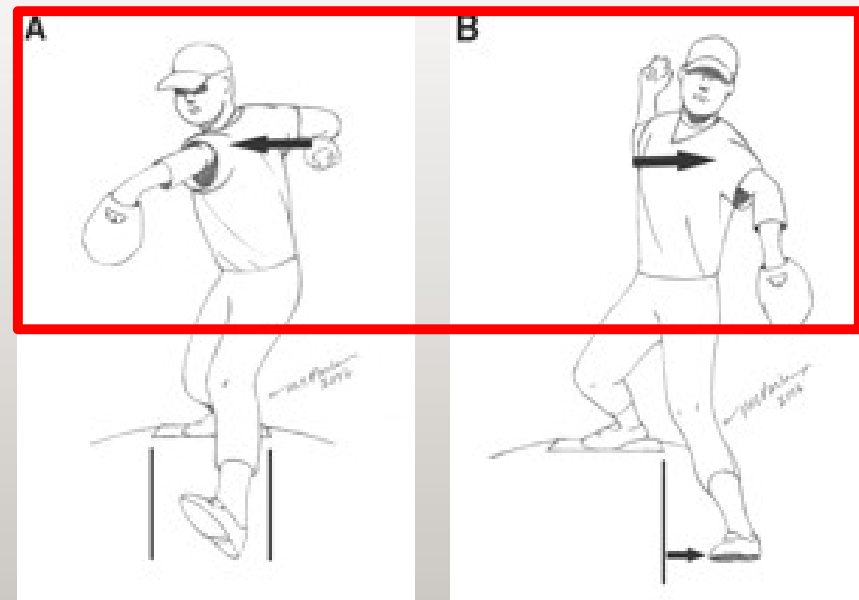


5 FACTORS TO REDUCE STRESS

- Closed Shoulder
 - When moving into acceleration, you should not see the name of the team



#4



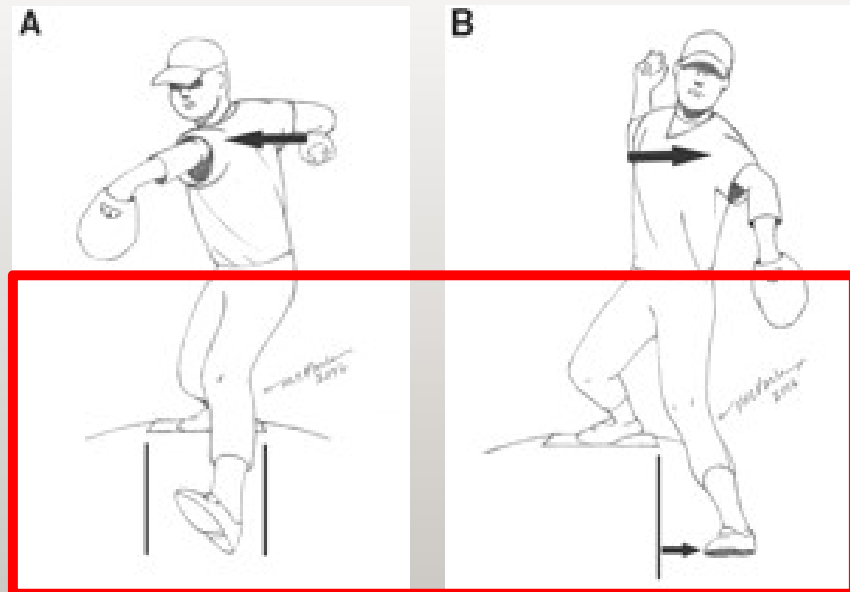
5 FACTORS TO REDUCE STRESS

- Foot towards home

- A common mistake is to step towards *first base*



#5



PROPER WARM UP BEFORE THROWING

- Arms and Trunk

- Across arm windmill
- Vertical windmill
- External rotation
- Trunk twists
- Not Shown:
 - Bat swings

- Legs

- Side Shuffle
- Side Shuffle with Windmill
- Karaoke Shuffle
- Exaggerated Skip
- Not Shown:
 - 1st to 3rd
 - Run the foul poles

THROWING DRILLS

- Always throw 4-seam during drills
- Watch them throw without cuing
 - Make some notes about each player
- When appropriate, take slo-motion video of the player
 - Motion happens *very quickly*



THROWING DRILLS

- Beginner

- Two Knee Wrist Flick
- Single Knee Wrist Flick
- Two Knees Full Throw
- Single Knee Full Throw
- Standing Trunk Twist
- Towel Follow Through

- Intermediate

- Beginner Drill in Standing
- Standing Follow Through Drill
- Fielding with throwing
 - Infield and Outfield
- Long Toss Drill

DRILLS FOR ADVANCED THROWERS

- Accuracy, Accuracy, Accuracy
 - Tie a balloon to a baseball T
 - Tipped over trash can at home plate
- Add crow-hop into throwing mechanics
 - Mark the foot placement when needed
- Throwing after fielding grounder/fly ball

Don't lose mechanics during functional drills!

INJURY PREVENTION

- Important to know what to look and listen for
- Shoulder:
 - Decreased range of motion overhead
 - Difficulty sleeping on the shoulder
 - Pain when reaching behind or putting on a jacket/shirt
 - Decreased throwing velocity and distance
 - Altered throwing mechanics

INJURY PREVENTION

- Important to know what to look and listen for
- Elbow:
 - Swelling and/or bruising over the inside of the elbow
 - Soreness at the inside of the elbow during or after throwing
 - Altered throwing mechanics
 - Decreased throwing velocity and distance

INJURY PREVENTION

- The best tool for reducing risk of injury:
 - Proper throwing mechanics with first to last pitch
 - Adhering to pitch counts
 - Avoiding curves and sliders until body-age appropriate
 - Kids develop at different rates!

INJURY PREVENTION

- Follow the pitch count – it's there for a reason!
 - League Age:
 - 13-16** - 95 pitches per day
 - 11-12** - 85 pitches per day
 - 9-10** - 75 pitches per day
 - 7-8** - 50 pitches per day
- Challenge comes with multiple leagues
 - Recruit parents, other coaches, create a log for each player
- Many great resources online

INJURY PREVENTION

- For age appropriate athletes – **STRENGTHEN!**
 - Usually around 13-years-old
- Guidelines for strengthening:
 - Light weight/resistance and high repetitions
 - Focus on mechanics of the exercise
 - Use resistance bands

THROWER'S TEN (MODIFIED)

- Overall strengthening program for the pitcher and thrower
- Modified certain exercises to cater to the youth athlete
- Handout available in front

BIG TAKEAWAYS

- Proper throwing mechanics is the best tool for injury prevention
 - Be comfortable providing cues to players and parents
- Can't progress to higher level drills until mechanics are emphasized
 - Will likely be achieved at different times for players
- Safe strengthening is helpful for the age appropriate athlete

All videos can be found at:

<http://connectionspt.com/patient-resources/patient-education/exercise-videos/>

Thank you for the opportunity!

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