



## Caring For Baseball Pitchers & Hitters

Lecture by:

**Dr. Terry Philips, PT, DPT**

**Thursday February 21st, 7:30pm**

**@ Lake Washington Physical Therapy  
Downtown Kirkland**

Heidi Biehl, PT, DPT, CSCS, OCS, SFMAc, CFSC

Megan O'Connell, PT, DPT, MTC

Caitlin Baird, PT, DPT

Jordan Bork, PT, DPT, CSCS, CFSC

Natalie Kinney, PTA

Bob Cruikshank, PT, DPT

Jessica Pare', PT, MPT, OCS, SCS

Mandie Majerus, PT, MSPT, CMPT, OCS, CSCS, CMPT

Benjamin Wobker, PT, MSPT, CSCS, SFMAc



# Caring For The Baseball Athlete

By Terry Phillips, DPT





## About Me

- Pitcher at Finger Lakes Community College in Canandaigua, NY
- Graduate of Ithaca College, 2009 with Doctorate of Physical Therapy
- Began working at Olympic Physical Therapy in 2010
  - Worked with baseball and softball players of all ages
- Began working at Driveline Baseball in April, 2016.





## Objectives

- Be aware of the common injuries in baseball and how to identify them
- Understand a comprehensive assessment process for baseball players
- Understand the the aspects of a complete training approach
- Know what you can do to help out your athlete



## “Big League Formula”

1. Throw hard
2. Get guys out
3. Stay healthy



## Typical Injuries: Youth vs. Pro

### College/Pro:

- Chronic Low Back Pain
- Lat Strain
- Extension Valgus Overload
- Flexor-Pronator Strains
- UCL Tears

### Youth/High School:

- Growth Plate Fractures
- Osgood-Schlatter's and Sever's
- Spondylolysis



## Common College and Pro Injuries

- Chronic Low Back Pain
  - Years of compressive and shearing forces
- Lat Strains
  - Will feel pain generally in the arm pit
- Extension Valgus Overload
  - Pain mostly in the posterior and lateral portion of the elbow from excessive shearing forces
- Flexor Pronator Strain
  - Muscles that attach to the inside of the elbow
- Ulnar Collateral Ligament Tear
  - Different levels
  - Tommy John or a PRP injection

## Growth Plate Injuries



- Happens at the epiphysis of the shoulder or elbow
  - Area of bone where majority of growth happens - is actually weaker than attaching ligaments or tendons
- Can be anything from inflammation to an actual fracture of the growth plate
  - Can be out anywhere from 4-6 weeks to 6-8 months
- Early detection is most important:
  - Pain
  - Swelling
  - Loss of Range of Motion
  - Decrease velocity or accuracy



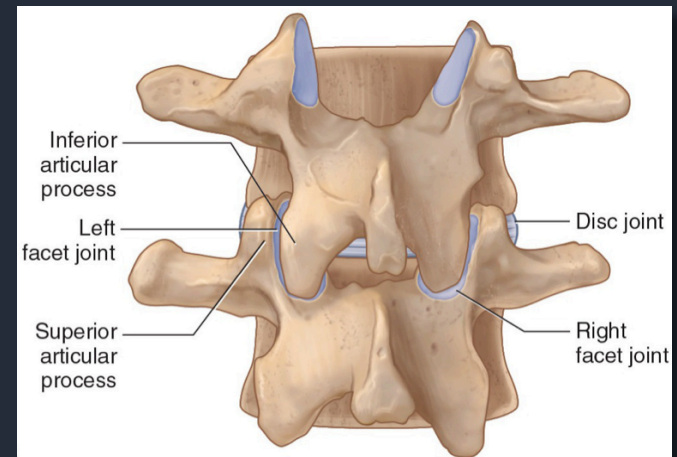
## Osgood-Schlatter's and Sever's

- Happens at the apophysis of the knee and foot
  - Area of outward bony growth
  - Result of excessive forces from the quadriceps and achilles tendon
  - Could be out 4-6 weeks to 3-5 months
- Signs:
  - Pain at the quadriceps or achilles attachment
  - Decreased sport performance



## Spondylolysis

- More commonly known as a stress fracture or stress reaction of the spine
  - Most commonly happens at L4 and L5
  - Could be out 1-2 months to 7-9 months
- Signs:
  - Pain
  - Poor muscle recruitment
  - Poor spine range of motion
  - Neural tension
  - Decreased overhead flexibility
  - Poor hip flexibility



# Risk Factors For Youth Baseball Injuries

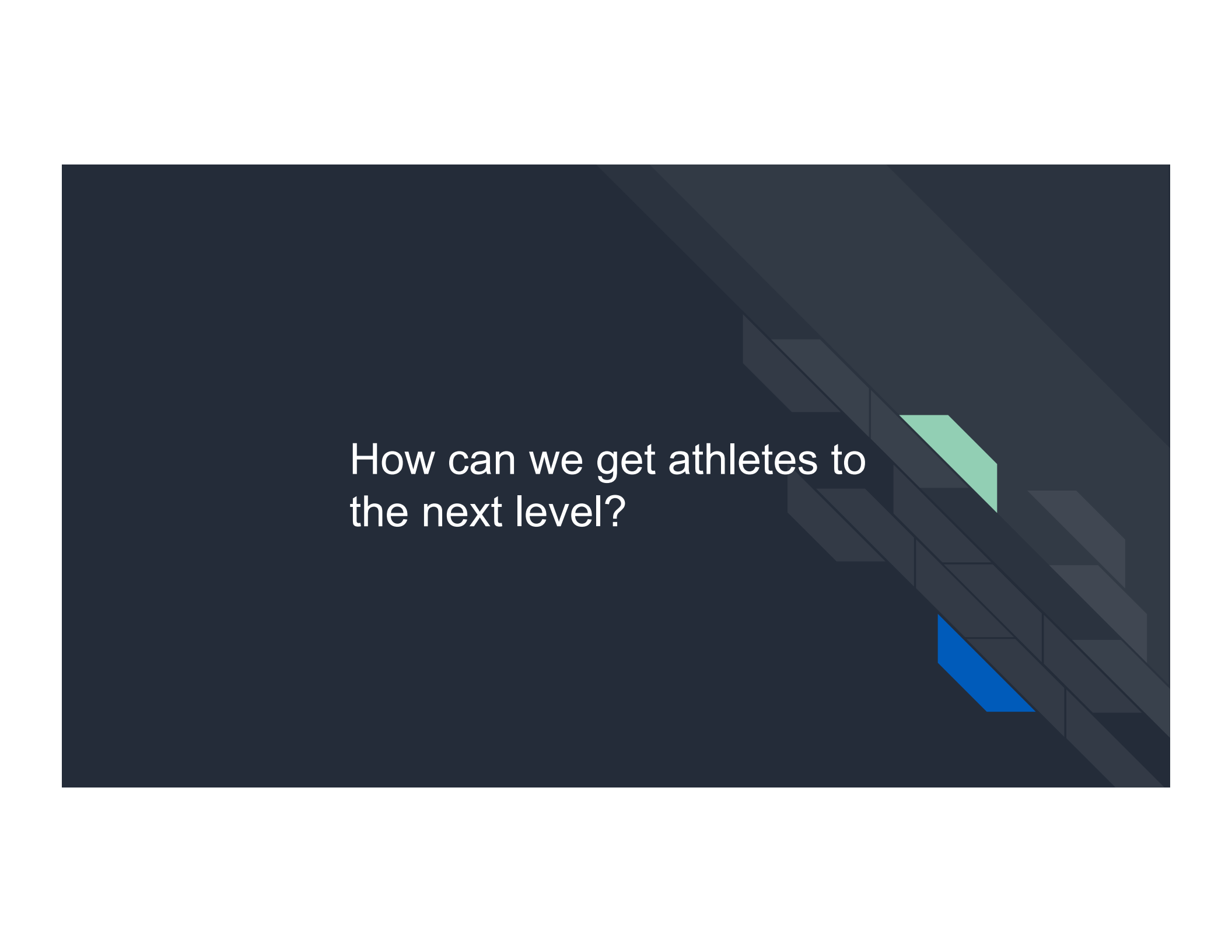
- Weakness
- Poor flexibility or mobility
- Repetitive extension and rotation
- Overuse
  - [Pitch Smart Guidelines](#)



# Injury Prevention

- SCREENING!
- Proper strength and conditioning routine
- Warm up and recovery
- Arm care routine





How can we get athletes to  
the next level?

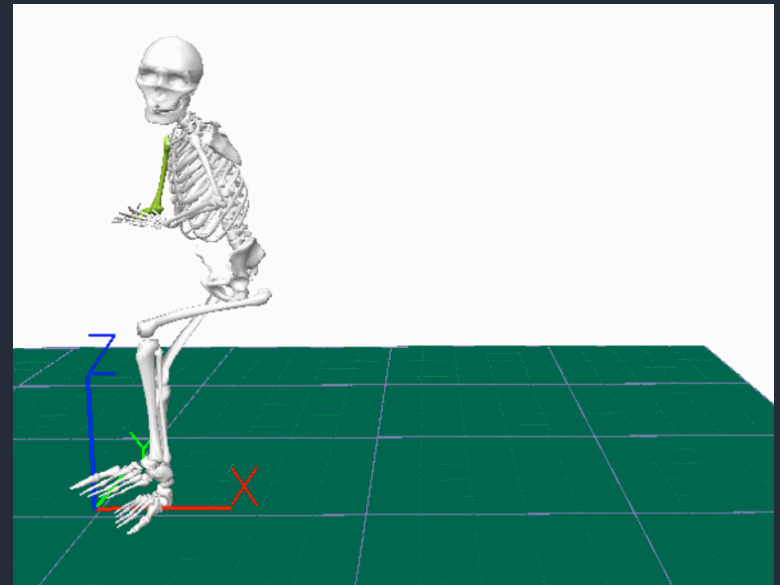


## The Team Approach

- Assessment
- Skill work
- Strength and Conditioning
- Medical Integration

# Throwing Assessment

- Teach arm care routine
  - Warm up
  - Recovery
- Plyocare drills
  - Video taped
  - “Mechanical work”
  - Also becomes part of arm care routine
- Motion Capture
  - Mechanical efficiency
  - Red flags with throwing motion



## Throwing Assessment Cont'd

- Strength Assessment
  - Movement Screen (Motion captured)
  - Power Assessment
  - Big 3 assessment
    - Done with barbell speed reader
- Physical Therapy Screen
  - Identify red flags
  - Make sure they are able to do what strength and throwing staff are asking of them
- Day 3 meeting
  - Discussion with throwing and strength trainer
  - Find out goals and develop a plan
- Day 5 Bullpen
  - Get a baseline velocity
  - Rapsodo report







## Throwing Training

- On-ramping
- Plyocare drills/Long toss
- Velocity Phase
- Command work
- [Pitch Design](#)
- Mound Blending
- [Live Ab's](#)



# Hitting Assessment

- Strength Assessment
- PT Screen
- Hitting Assessment
  - K-vest (motion capture)
  - Blast Metrics (Bat speed, attack angle)
  - Batted Ball Report
    - Based off 300 balls in play
    - Shows where athletes strengths and weaknesses are
- Meeting by end of the week to determine plan going forward

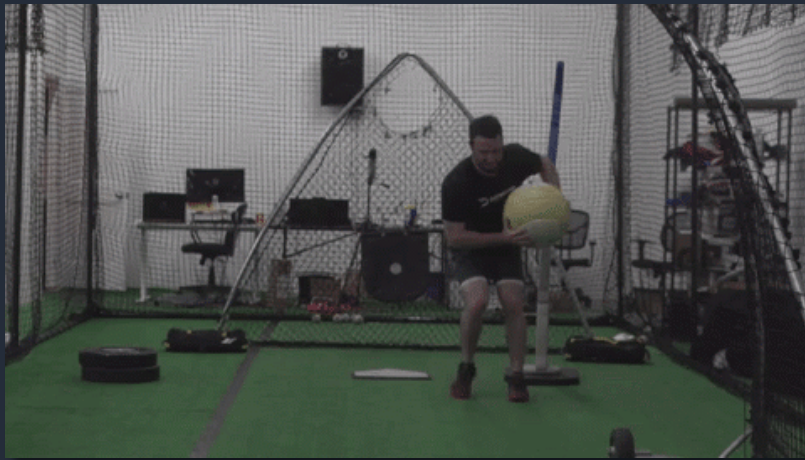




## Hitting Training

- Overload/Underload training
- Barrel Precision
  - Hitting Plyos
  - Long/Short bat
- Group Work
  - Tee, front toss, machine
  - Mostly external cues
- Swing Design
  - Where tweaks are made to the swing
- Bat Fitting
  - End-loaded vs. Balanced
  - Round knob vs. barrel loaded vs. axe handle

## Strength Training



- 3-4 days a week depending on time of year and phase of training
- Hypertrophy, Strength, Power, Speed phases
- More unilateral and speed work closer to competition
- Velocity Based Training
  - Using a barbell speed reader
  - Can use in any phase of training



## Integration of Medical Professional

- Screening
- Allows for continued monitoring of athletes
  - Follow up at least every 3-4 weeks
- Rehabilitation or Prehabilitation
  - Addressing impairments of movement screen to help with mechanical deficits
- Meetings with training staff to discuss athlete progress
- Medical Provider needs to have an idea of what the athlete is doing in the weight room and on the training floor
  - Minimal Effective Dose



## Differences In training Youth vs. Pro

### Youth/High School

- Strength focus
- Explore athleticism - build the engine
- Intent to throw hard
- Intent to swing hard
- Long term Development vs. Short term success
- Develop foundation for staying healthy

### College/Pro

- Less strength, more power, speed, and mobility
- Command and Pitch Design
- Less focus on power in the swing, more focus on barrel precision, making swing more well rounded
- Work around or try to improve long term, chronic impairments

## What Can You Do?

- Get your athletes screened!
  - <https://www.baseballhealthpros.com/>
- Work with a Strength and Conditioning coach
- Incorporate an arm care routine
  - <https://www.drivelinebaseball.com/free-youth-daily-arm-care-throwing-drills/>
  - <https://www.jaegersports.com/j-bands-exercises-workout/>
- Driveline Baseball Content
  - <https://www.drivelinebaseball.com/blog/>
  - <https://plus.drivelinebaseball.com/>





## Where To Find Me

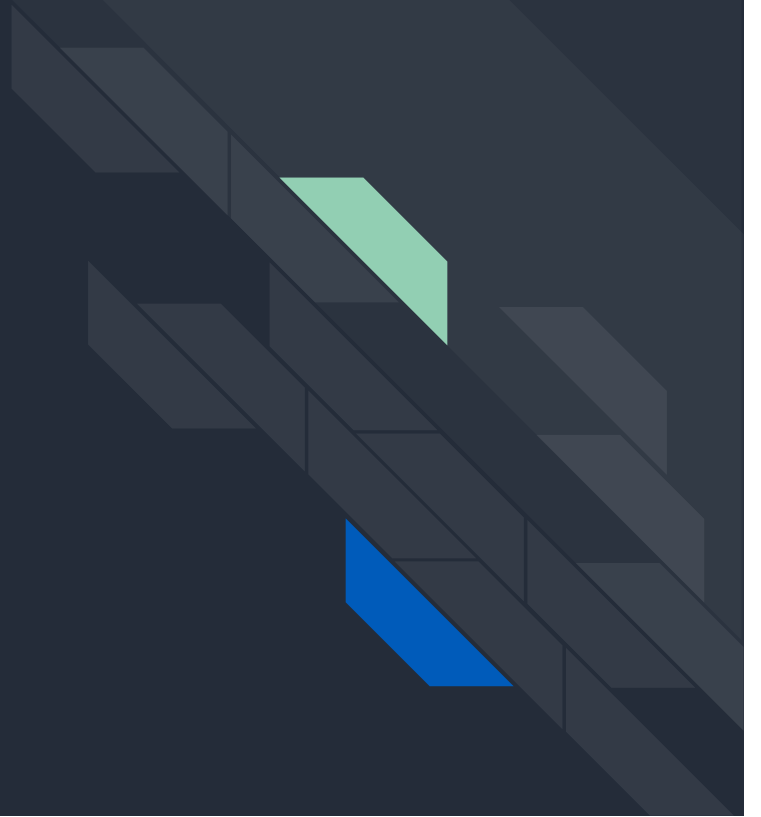
E-Mail: [terry.phillips34@gmail.com](mailto:terry.phillips34@gmail.com)

Twitter: @TPhillips\_DPT or @BHPrehab

Instagram: @baseballhealthpros



Questions?





Thank You!