

## Injury Prevention and Overuse in Middle School Athletes



**Problem** - Over the course of the last two years we have seen more and more injuries to young athletes.

Most of these have been caused from overuse.

**Problem** - burnout. When an athlete experiences overwhelming exhaustion from training and competition, resents or completely loses interest in the game. It can happen with specialization of one sport or excessive training

**Causes** - Early sports specialization-

1. Participation in intensive training and/or competition in organized sports greater than 8 months per year (essentially year round).
2. Participation in 1 sport to the exclusion of participation in other sports (limited free play overall)
3. Involving prepubertal children – roughly age 12 years

**Goal of Early Sports Specialization** - competitive edge, scholarships, “elite” status

**Causes** - Why does early sport specialization lead to injury?

1. Sports have specific patterns that place repeated stress on structures (ligaments, tendons, bone) of the body which can lead to injury if proper rest and recovery are not allowed.
2. Different sports come with a different set of movement patterns with their own mechanical stressors. Playing different sports naturally places different stresses on the body while increasing an athlete’s physical / movement literacy.



# 5 Strategies to Prevent Burnout In Youth Athletes



1

Create a training environment that fosters perceived competence and having fun



2

Encourage multiple sport participation, as opposed to single sport specialization



3

In striving for perfection, the athlete must have realistic expectations and be able to accept less than perfect performance



4

Avoid pressuring the athlete; perceived coaching and parental pressures lead to burnout



5

Allow the athlete to have autonomy and ownership over the sport experience




- **Solutions** – Neuromuscular training to prepare the body for specific sport, but also increase an athlete's movement literacy. This includes:
  - Exposing the body to different positions / movements they may not be exposed to during the sport to offload structures that are stressed with sport specific movement patterns.
  - Exposing an athlete to greater range of motion, loads, rates, and duration to lessen the stress of competitive game play.

**Solutions** – ○ Exposing the body to a variety of movements, while demonstrating good neuromuscular control with those movements, better prepares the athlete to handle the variety of positions / movements that arise naturally during game play and can help to prevent injury.


## Questions to ask your Athlete-


1. Do you want to play?
2. Are you enjoying playing?
3. Do you ever want to stop playing?
4. What are your goals?
5. Do you know the difference between hurt and injured?




## POTENTIAL RISKS AND REWARDS OF EARLY SPORT SPECIALIZATION

LaPrade et al. (2016). AOSM early sport specialization consensus statement.  
Bean et al. (2014). Understanding how organized youth sport may be harming individual players within the family unit: A review






**Less time  
with friends**




**Burnout  
and dropout  
from sport**


*Early sport specialization is not a  
requirement for success at the  
highest levels of competition....*




**Impaired  
psychosocial  
health and  
development**




**Decreased  
enjoyment**




**Underdeveloped  
neuromuscular  
coordination**







**Family  
stress  
and  
strain**




**Increased  
injury risk**



**High  
cost**




**Compromised  
academics**




**Impaired  
overall athletic  
development**

*and it's believed to be unhealthy  
physically and mentally for young  
athletes. It also discourages unstructured  
free play, which has many benefits.*

Data from: NCAA website



## PERCENTAGE OF HIGH SCHOOL ATHLETES WHO MOVE ON TO PLAY IN THE NCAA



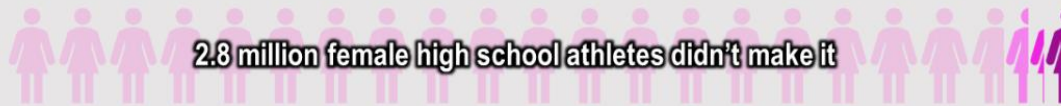
In 2016-17, **4.3 million** men and **3.0 million** women participated in High School sports, **BUT...**

94% didn't make it to the NCAA level

High School Only	Division III	Division II	Division I	Any Division
94.27%	2.31%	1.47%	2.11%	5.73%
94.10%	2.32%	1.48%	1.93%	5.90%

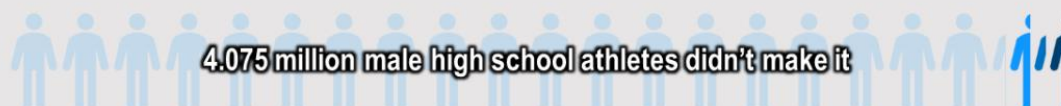
Women's Sport

2.8 million female high school athletes didn't make it



Men's Sport

4.075 million male high school athletes didn't make it



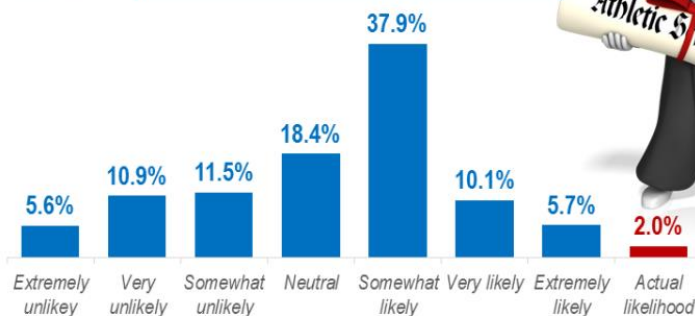


## BELIEFS ABOUT ATHLETIC SCHOLARSHIPS: A SURVEY OF 974 YOUTH ATHLETES

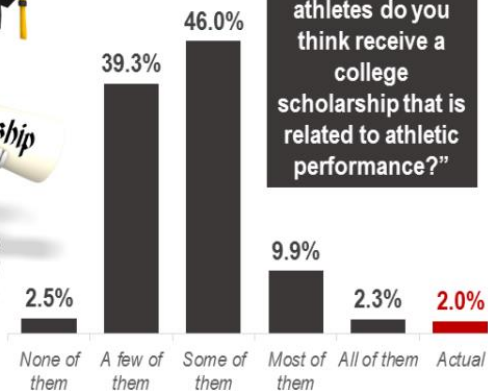
Brooks et al (2018). Knowledge, Attitudes, and Beliefs of Youth Club Athletes Toward Sport Specialization and Sport Participation.



"How likely do you believe it is that you will receive a college scholarship that is related to athletic performance?"



"How many youth athletes do you think receive a college scholarship that is related to athletic performance?"



>50% of youth athletes believe that their chances at receiving a college athletic scholarship is, at least, somewhat likely.

12.2% of youth athletes believed that most, if not all, youth athletes receive a college athletic scholarship

The NCAA reports that only 2% of athletes actually receive any form of college athletic scholarship

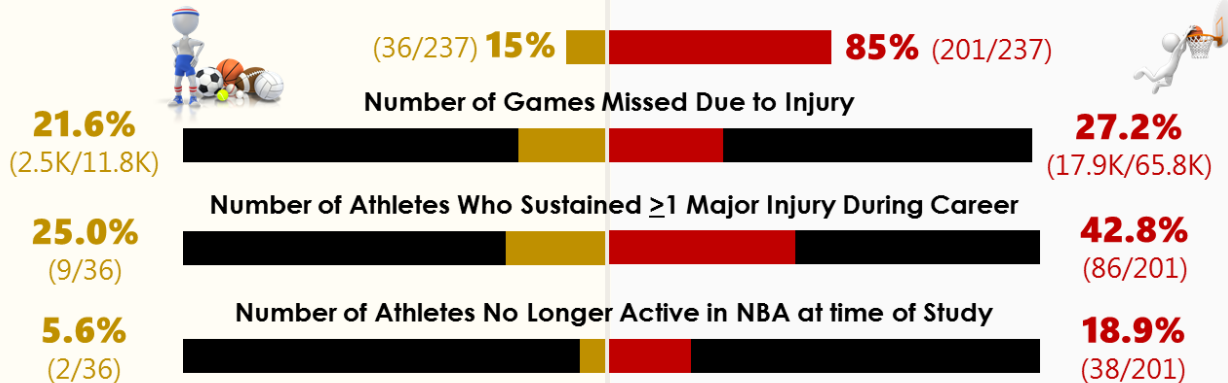
## INJURY RISK AND CAREER LONGEVITY IN NBA PLAYERS THE IMPACT OF BEING A MULTI-SPORT HIGH SCHOOL ATHLETE



High school sport participation in 237 1<sup>st</sup> round NBA draft picks between 2008-2015

### MULTISPORT HIGH SCHOOL ATHLETES

### ONLY HIGH SCHOOL BASKETBALL



**REFERENCE:** Rugg, et al. (2018). The effects of playing multiple high school sports on national basketball association players' propensity for injury and athletic performance. AOSSM, 46(2), pp.402-408.

**MORE INFO:** Designed by Adam Virgile  
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Elite athletes who participated in multiple high school sports had more productive, healthier careers in regards to games played, injury avoidance, & career length, compared with athletes who are limited to single sport participation