

Sports Safety for All Ages: A Single Institution's Experience with Youth Football

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Wake Forest School of Medicine
2016 Youth Sports Safety Summit



Motivation:

NFL and College Football
is just the **Tip of the Iceberg**

- **Pro:**
32 teams, 53 players each,
2,000 players
- **College:**
Division I,II,III: >511 teams,
100,000 players
- **High School:**
>22,000 teams,
1,300,000 players
- **Youth League (6-13 yo):**
3,500,000 players



2,000



100,000



1,300,000



3,500,000

AT Prevalence

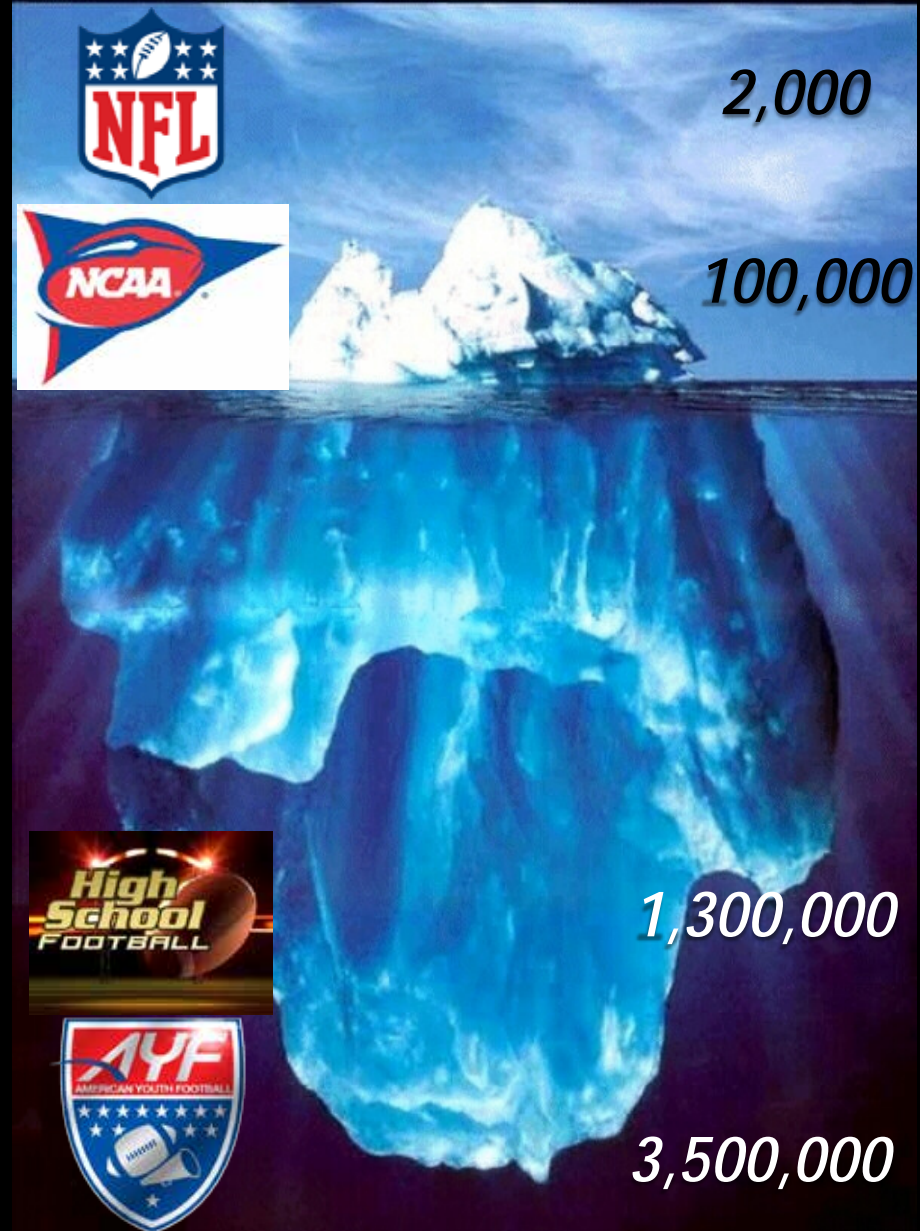
100%

Pop Warner: "All practices must be attended by one person holding a Red Cross Community CPR and a First Aid certification OR National Center for Sports Safety PREPARE Certificate of Completion, or equivalent, if not by an EMT or volunteer physician."

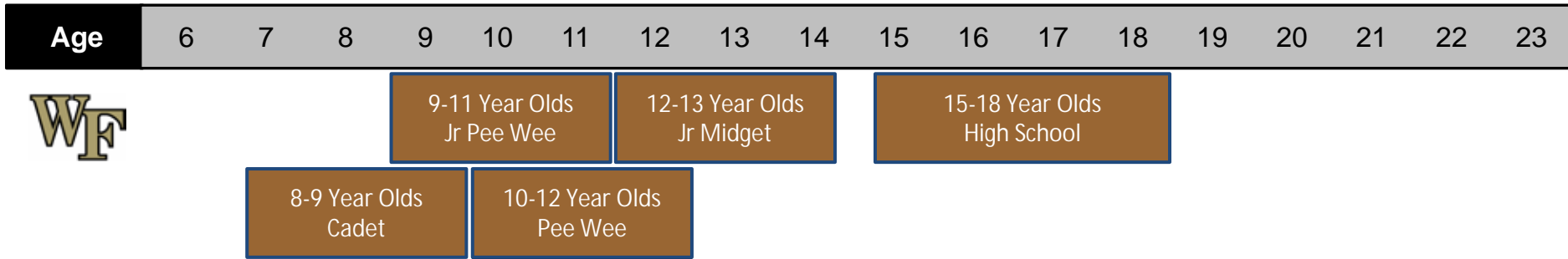
37%

Have access to a full-time AT

Nearly 0%



WFU KIDS/iTAKL Study



Head Impact Biomechanics

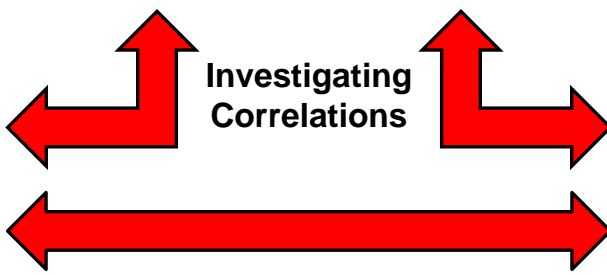
Acceleration Measurements

FE Modeling for Tissue Response

Diagram illustrating FE Modeling for Tissue Response, showing a 3D brain model with stress distribution.

Functional Outcomes

- Cognition
- Post-Concussion Symptoms
- Emotion
- Exertional Effects



Imaging

Baseline, Injury, and Post-Season

fMRI:

MEG:

241 athletes instrumented between 9-18 from 2012-2015

Evolution of Funding: 2013

- Part-time (18-20 hours/week), hourly
- \$7500 for the season
 - AT coverage, liability insurance coverage, and supplies
 - Employed by the youth organization (rather than through the hospital)



Evolution of Funding: 2014

- Full-time position, short-term contract
- \$8500 for the season
 - Employed by the hospital
 - 50/50: on-field duties/outreach and assistance in the Sports Medicine Clinic
- Licensed Sports Medicine physician signed off on orders
 - No cost to the program for the physician

Evolution of Funding: 2015

- Part-time position, short-term contract
- \$3000 for the season
 - Employed by the hospital
 - Only participated in on-field duties for the organization
- Licensed Sports Medicine physician signed off on orders
 - No cost to the program for the physician



The Youth Football Season

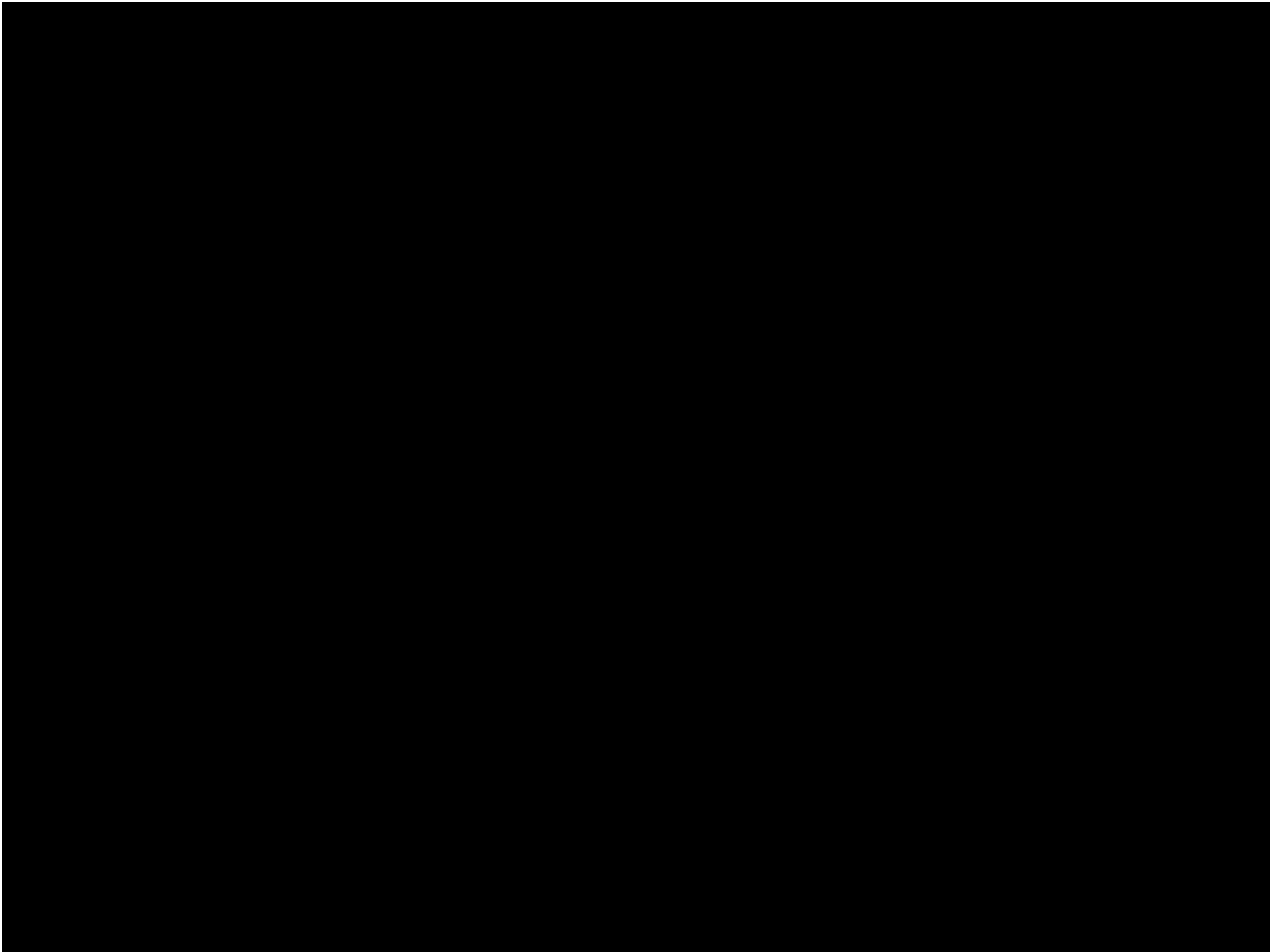
- ~15 week season
- ~45 practices and 10 games
- 150-175 athletes practicing at once (1-2 fields)
- Practices 3 nights per week for 2-2.5 hrs
- Games every Saturday
 - 6-8 teams playing throughout the day
 - 8-10 hour day



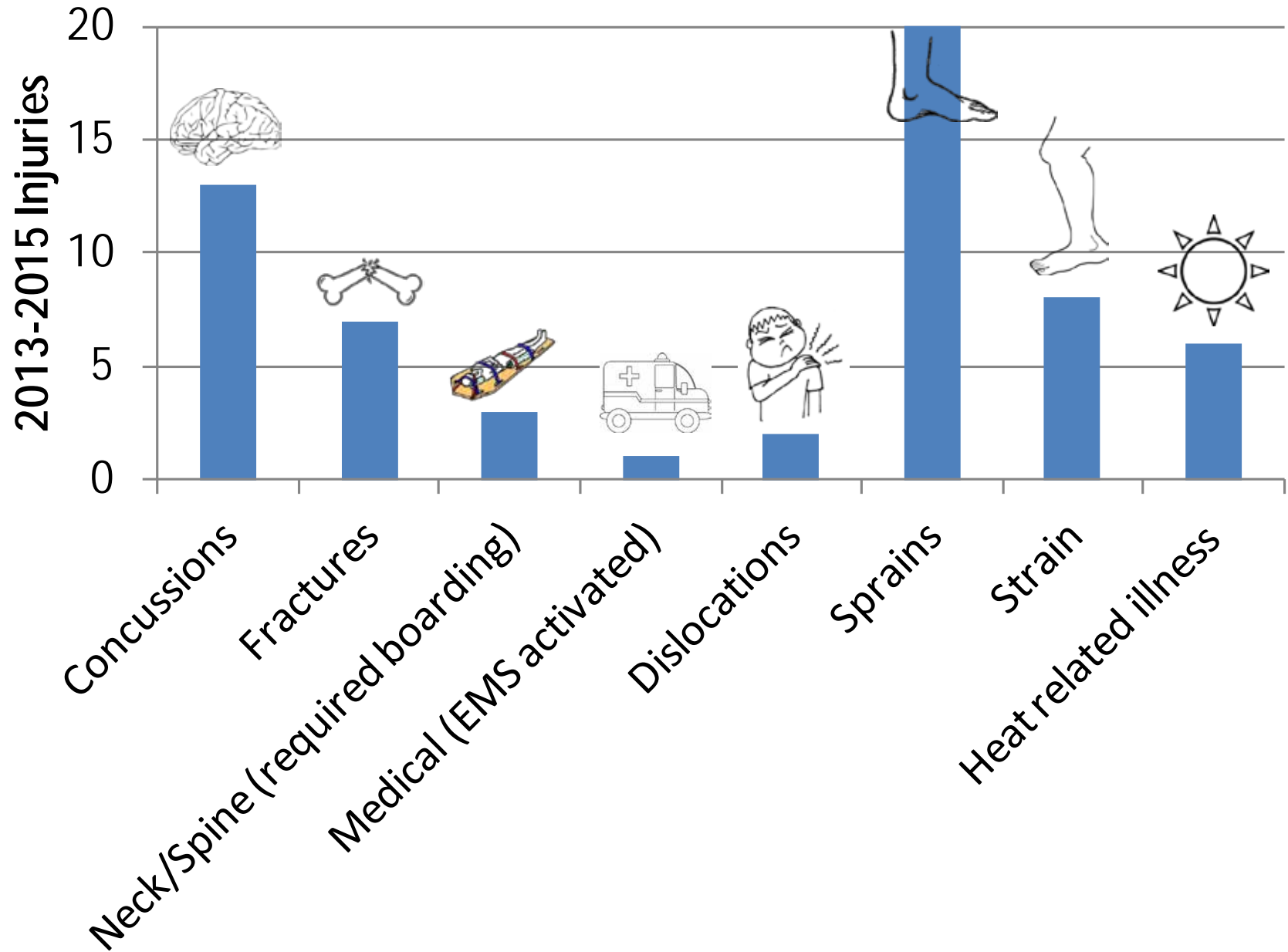
What was the ATs role?

- Developed an emergency action plan
- On-field during all practices and games – on-call for teams practicing at remote field
- Suggested steps to make the playing environment safer and assisted individual players with conditioning, stretching, hydration tips, and other topics

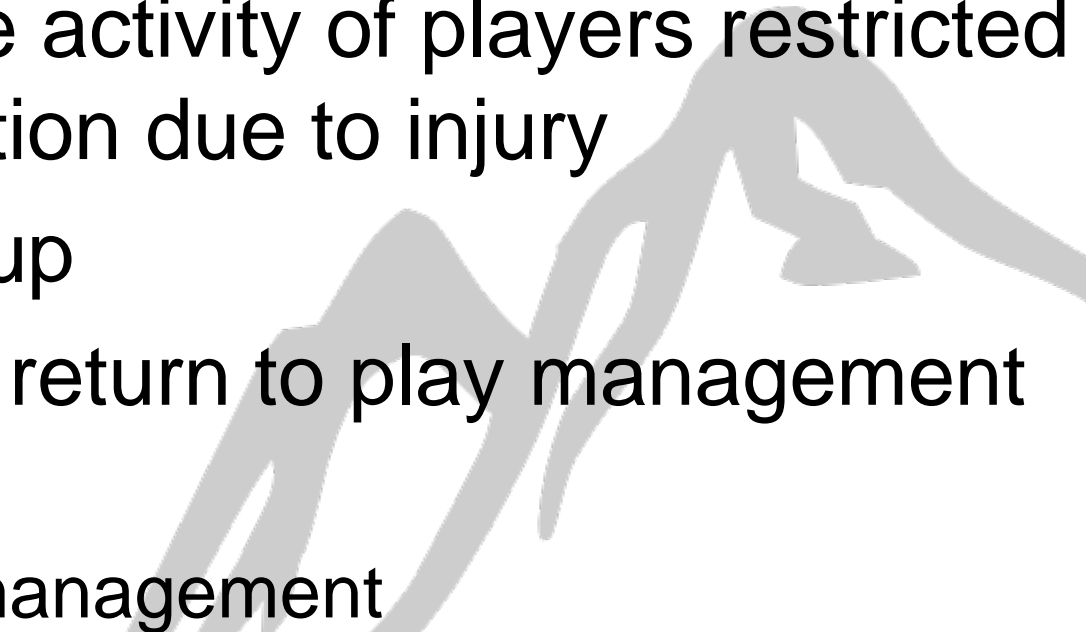




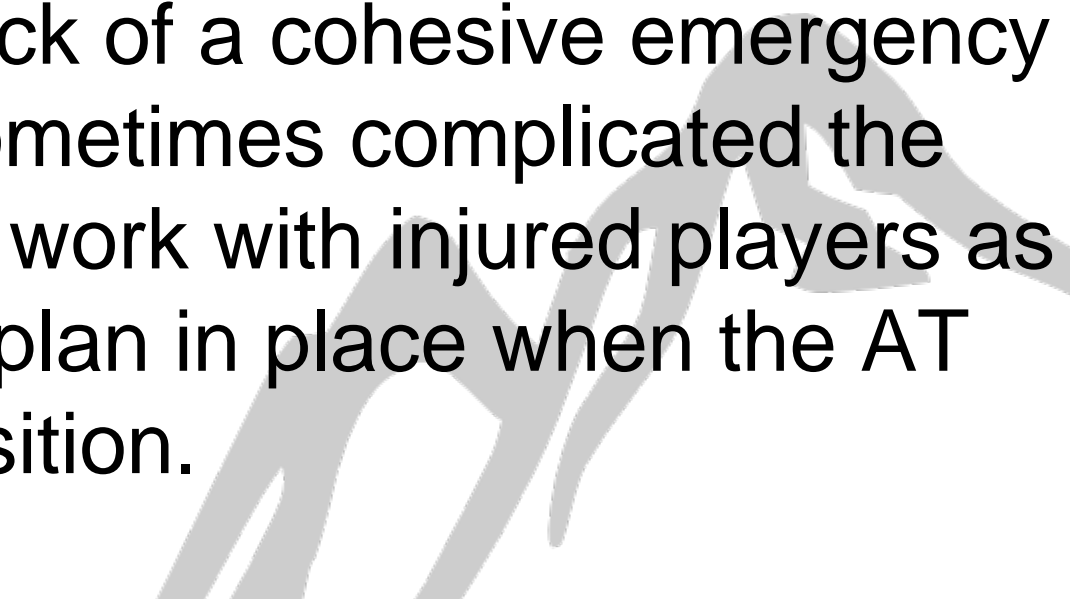
Home Organization Injuries



Challenges

- Difficult to find an AT interested in a seasonal part-time position
 - Controlling the activity of players restricted from participation due to injury
 - Player follow-up
 - Resistance to return to play management was observed
 - concussion management
- 

Challenges

- Game days were long, making fatigue a factor for the single AT.
 - Initially, the lack of a cohesive emergency action plan sometimes complicated the AT's ability to work with injured players as there was no plan in place when the AT began the position.
 - Cost
- 

What did we learn...



Erica Konczal, LAT, ATC

South Fork Panthers Athletic Trainer
Injury Prevention, Assessment, and Treatment

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Athletic Trainers Key for Youth Sports Safety

Many of us watch college football on television running, blocking, and speeds that few can on-field injury assessment army of professional sports injury running 100,000 athletes per professional football



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Athletic Trainers for Youth Sports

I am an [athletic trainer](#) and work with the [South Fork Panthers](#) youth football league in Winston-Salem. The Panthers are part of the [iTAKL](#) concussion study led by [Dr. Joel Stitzel](#) at Wake Forest Baptist Health. I was hired to help report concussions if they happen during the study, but also as the team's first responder to help with injuries on the field. My role is funded through [Richard Budd](#) and his family's donation to the Childress Institute for Pediatric Trauma.

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Recommendations for Success

- Seek funding through the youth organization and/or local supporting stakeholders
- Hire the AT through an organization who may have existing support for liability coverage and supplies.
- Sports Medicine physician(s) partner

Recommendations for Success

- Establish a working relationship between the youth organization and AT prior to start of the season
- Introduce the AT and clearly communicate his/her role to the home organization and league
- Integrate the AT into the organization's culture.

Athletic Trainer Feedback



POWERED BY QUALTRICS

Parent Survey on Athletic Trainer Services

During the 2013 and 2014 South Fork Panther seasons, the South Fork Panther organization had a full time athletic trainer for practices and games. This unique opportunity was made possible by the generous contributions from the Matthew Gfeller Foundation, Childress Institute for Pediatric Trauma, and South Fork Panther organization.

For more information about the Matthew Gfeller Foundation, please visit: www.matthewgfellerfoundation.org

For more information about the Childress Institute for Pediatric Trauma, please visit: <http://www.wakehealth.edu/CIPT/>

Please take a few minutes to answer the questions below.

Athletic Trainer Feedback

Would you recommend to another youth football organization that they hire an athletic trainer if possible?

Definitely would not: 0%
Probably would not: 15%
Don't know: 15%
Probably would: 10%
Definitely would: 75%

If the athletic trainer was not present would that affect your decision to have your son play football?

Definitely would not let him play: 0%
Probably would not let him play: 15%
Unsure: 10%
Probably would let him play: 65%
Definitely would let him play: 10%

Athletic Trainer Feedback

“I think that having a medical professional at any athletic event provides a higher level of care for our kids. I applaud our organization for having this person on the field.”

“Coaches are not doctors or trained to handle injuries. Having a trainer takes that responsibility off the coaches shoulders and puts it onto someone properly trained to handle injuries.”

“I'm thrilled we had an AT for two seasons, but it's a luxury few youth orgs can really afford.”

“They were more confident in playing (The Jr. Midget Team).”

Acknowledgements

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 - Mary Kopacki, LAT, ATC



