Concussion & sport safety legislation: An analysis of existing laws and future regulatory trends

John Parsons, PhD, AT, ATC
A.T. Still University

© 2013  John T. Parsons
• Identify and discuss common **components and trends** in state sport-concussion legislation & policy

• Identify & discuss **emerging sport safety legislative initiatives**

• Identify and discuss **emerging advocacy opportunities**

© 2013 John T. Parsons
ORIGINS OF CONCUSSION LEGISLATION
Lystedt Core Components

1. Education
2. Informed consent
3. Removal from play
4. Return to play
1. Education for coaches, parents, athletes
2. Required removal from play
3. Clearance from licensed & trained healthcare professional
NFL Commissioner Roger Goodell sent a letter to 44 governors of states urging them to pass a law similar to the Lystedt Law. On January 11, 2012, Commissioner Goodell and NCAA President Mark Emmert sent letters to 19 governors, charging them to protect youth athletes in their state through the passage of legislation. In the letters, Commissioner Goodell stated his belief that sports and political leaders can help raise awareness of concussions while ensuring proper and effective treatment.

Lystedt Law Overview

The law is named for Zackery Lystedt, who, in 2006, suffered a brain injury following his return to a middle school football game after sustaining a concussion. Zackery, his family and a broad range of medical, business and community partners lobbied the Washington state legislature for a law to protect young athletes in all sports from returning to play too soon. The Lystedt law contains three essential elements:

- Athletes, parents and coaches must be educated about the dangers of concussions each year.
- If a young athlete is suspected of having a concussion, he/she must be removed from a game or practice and not be permitted to return to play. When in doubt, sit them out.
- A licensed health care professional must clear the young athlete to return to play in the subsequent days or weeks.
Lawsuit

2013 BOC Athletic Trainer Regulatory Conference

LEGISLATIVE ANALYSIS

© 2013 John T. Parsons
Purpose

1. To identify the components of state SCM legislation and the frequency with which they have been implemented

2. To characterize the impact of SCM legislation on ATs and AT practice as it relates to concussion management
Methodology

• Content analytic methods
  – 30 variable codebook
  – Krippendorff’s $\alpha = 0.75^*$
  – LOA: State statute

• Variable clusters:
  1. Education & training
  2. Patient management
  3. Provider decision-making
  4. Liability

© 2013 John T. Parsons
Variables

1. Education
   - Education requirement
   - Personnel training requirement*
     - Training frequency
     - Personnel
       - Coach
       - School personnel
       - Referee
       - AT
       - Physician
   - Informed consent requirement

2. Patient Management
   - Removal from play requirement
   - Same day return prohibition
   - Academic accommodations / integration
   - Graduated return
   - Baseline testing requirement
   - Post-concussive testing
   - Cognitive rest
3. Provider Decision-Making

- Screening / clearance distinction
- Written clearance requirement
- Physician-only clearance
- Generic HCP reference
- Provider-specific authorization:
  - AT
  - NP
  - PA
  - Psychologist/ Neuropsychologist
  - PT
  - Chiropractic
- Training in SRC requirement

4. Liability

- School liability protection
- School employee liability protection
- Volunteer protection

© 2013 John T. Parsons
Results: Education & Training

47/49 (95.9%) require education
40/49 (81.6%) require informed consent
27/49 (55.1%) require personnel training*
Training-Personnel (n=27)

- Coach: 100%
- AT: 33.3%
- School personnel: 22.2%
- Referee: 18.5%
- Physician: 14.8%

© 2013 John T. Parsons
Training Frequency (n=27)
Results: Patient Management

48/49 (98%) require removal from play
14/49 (28.6%) prohibit same day return

© 2013 John T. Parsons
Patient Management (n=49)
**Results: Provider Decision-Making**

47/49 (95.9%) require written clearance

31/49 (63.3%) require training in SCM

3/49 (6.1%) include screen/clearance differences

7/49 (14.3%) require physician-only clearance
Results: Provider Authorization (n=42)
Results: Liability

11/49 (22.4%) provide school liability protection
8/49 (16.3%) provide school employee liability protection
14/49 (28.5%) provide volunteer liability protection
2013 BOC Athletic Trainer Regulatory Conference

IMPLICATIONS
• **AT dichotomy**
  – 2\textsuperscript{nd} to physicians in authorization
  – 1/3 of states require recurring training of ATs

• **Provider authorization complex**

• **Overlooked:**
  – Testing (0%)
  – Academic implications (8.2%)

© 2013 John T. Parsons
• Lystedt (& NFL) influence is clear
• Enforcement provisions are vague
• Volatility
  – Additional policy groups
  – 9(18.3%) defer key decisions
• Entrenched principles for future sport safety legislation?
Peters cops open investigation of high school football program

Thursday, January 26, 2012
By Janice Crompton, Pittsburgh Post-Gazette

Police in Peters, Washington County, are investigating the Peters Township High School football program after receiving a complaint Wednesday from the county's Children and Youth Services Department, the police chief said today.

Police Chief Harry Fruecht said his department launched an investigation yesterday after receiving a complaint from CYS that "an alleged perpetrator is permitting children to play sports with concussions or concussion-like symptoms."

"I don't know if this will rise to our level or not," the chief said of possible criminal charges. "But we at least have to take a look at it."

Chief Fruecht said he contacted district Superintendent Nina Zetty yesterday and requested that she turn over documents related to a district investigation regarding accusations that high school head football coach Rich Piccinini was interfering with the job of athletic trainers as they treated injured players, including those with brain injuries.

"I've asked the school district for everything they've got so far," he said.
2013 BOC Athletic Trainer Regulatory Conference

FEDERAL LEGISLATION
Federal Legislation

**H.R.2118**

**Latest Title:** *Youth Sports Concussion Act of 2013*

**Sponsor:** Rep Bill Pascrell Jr. (NJ-9)

**Introduced:** 5/22/13

**Cosponsor:** 1

**Latest Major Action:** 5/24/2013 Referred to House subcommittee.

**Status:** Referred to the Subcommittee on Commerce, Manufacturing, and Trade.

---

**S.1014**

**Latest Title:** *Youth Sports Concussion Act*

**Sponsor:** Sen Tom Udall (NM)

**Introduced:** 5/22/13

**Cosponsors:** 1

---

© 2013 John T. Parsons
H.RES.72

**Latest Title:** Supporting the goals and ideals of the Secondary School Student Athletes' Bill of Rights.

**Sponsor:** Rep Jim Gerlach (PA-6)

**Introduced:** 2/15/13

**Cosponsors:** 18

**Latest Major Action:** 2/15/2013 Referred to House subcommittee.

**Status:** Referred to the Subcommittee on Health.
2013 BOC Athletic Trainer Regulatory Conference

INTERSCHOLASTIC CONCUSSION POLICY

© 2013 John T. Parsons
State IAAs

• National Federation of State High School Associations (NFHS)
  – *Suggested Guidelines, 2009* (amended 1/11)
• Autonomous policy
• Primary stakeholder in state legislation
• Scope of practice battles

© 2013 John T. Parsons
Arizona Athletic Trainers’ Association

Guidance Document

Compliance with SB 1521 and
Arizona Interscholastic Association Concussion Policy

Created: August 2011

Introduction & Purpose
The purpose of this document is to provide licensed athletic training members of the Arizona Athletic Trainers’ Association (AzATA) with guidance related to compliance with SB 1521 and Arizona Interscholastic Association (AIA) concussion and head injury policies.

This document is provided as a member benefit, and the information contained herein is only applicable to the practice of athletic training by athletic trainers licensed in the State of Arizona. Members must be aware that this information is intended solely as a guideline for athletic trainers to better understand the requirements of the new state law and AIA policies related to concussion management. Members are encouraged to read the applicable statute and AIA policies for themselves, and to collaborate with school administrators, risk management, and legal counsel related to the development, implementation, and compliance with the required school district policies.

Background - SB 1521
SB 1521 was signed into law on by Governor Jan Brewer on April 18, 2011 and is currently in effect. The new provisions are embedded in ARS Sec. 15-341(A)(24)(b) as a component of an existing statute that pertains to the powers and responsibilities of school district governing boards. Specifically, Sec. 15-341(A) commences with the words “The governing board shall,” and then lists matters which governing boards must address. Subsection (A)(24) begins with the directive to “Prescribe and enforce policies and procedures relating to the health and safety of all pupils participating in district sponsored practice sessions or games or other interscholastic activities...” Therefore, the concussion law applies directly to all public schools and public school districts in the State of Arizona. The use of the word “shall” in the statute means that school district governing boards are legally required to comply. The new statutory provision also requires compliance from any nonprofit group or organization that uses property or facilities owned or operated by a school district for athletic purposes. Consequently, the law also constitutes a mandate to any nonprofit club or league that uses public school facilities and is intended to extend protection to their athletes.
Barrow Neurological Institute and AT Still University are collaborating to offer free baseline testing, statewide concussion research, and statewide concussion consultation to all Arizona Interscholastic Association member schools. This statewide effort is called the **Barrow Concussion Network**.

**Objective:**
To provide concussion coverage for all Arizona Interscholastic Association high school athletes.

**Who?**
Barrow Neurological Institute, AT Still University, and the Arizona Interscholastic Association.

**What?**
The Barrow Concussion Network provides AIA member schools access to computerized assessment tools (ImPACT), statewide concussion research and free concussion consultation.

**How?**
Athletic trainers in the state of Arizona may request access to the Barrow Concussion Network by emailing: concussionregistry@dignityhealth.org. Please provide full name, school name, and contact phone number. You will receive an email invitation into the Barrow Concussion Network AND an email giving access to ImPACT (for AIA eligible schools).
Texas

University Interscholastic League (6/11/13)

• limit full-contact football practice to 90 minutes per week during the regular and post season

HB 887

• Creates sport injury pilot program:
  • Physical, access, baseline testing, RTP, insurance, post-injury testing,
Rules Changes

NFL

• Limited pre-season & in-season contact
• Kickoff @ 35 yd. line
• 3-man wedge prohibition
• “Defenseless player” protections (all)
• Lost helmet (ball carrier)
• Crown hits
• Ball carrier contact (outside tackle; 3 yrd)
Emerging Sport-safety Trends

2013 BOC Athletic Trainer Regulatory Conference
EXERTIONAL HEAT ILLNESS POLICIES
<table>
<thead>
<tr>
<th>Area of Practice Modification</th>
<th>Practices 1-5</th>
<th>Practices 6-14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Days 1-2</td>
<td>Days 3-5</td>
</tr>
<tr>
<td>Number of Practices Per Day</td>
<td>1</td>
<td>2, only every other day</td>
</tr>
<tr>
<td>Equipment</td>
<td>Helmets only</td>
<td>Helmets &amp; Shoulder Pads</td>
</tr>
<tr>
<td>Maximum Duration of Single Practice Session</td>
<td>3 hours</td>
<td>3 hours (a total maximum of 5 hours on double session days)</td>
</tr>
<tr>
<td>Permitted Walk Through Time</td>
<td>1 hour (but must be separated from practice for 3 continuous hours)</td>
<td></td>
</tr>
<tr>
<td>Contact</td>
<td>No Contact</td>
<td>Contact only with blocking sleds/dummies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full, 100% live contact drills</td>
</tr>
</tbody>
</table>

NOTE: warm-up, stretching, cool-down, walk-through, conditioning, and weight-room activities are included as part of practice time
Arizona Interscholastic Association
Sports Medicine Advisory Committee

Heat Acclimatization & Exertional Heat Illness Management Policy

It is the position of the AIA that prevention is the best way to avoid exertional heat stroke. Prevention includes educating athletes and coaches about:

1. Recognition and management of exertional heat illnesses;
2. The risks associated with exercising in hot, humid environmental conditions;
3. The need for gradual acclimatization over a 14 day period;
4. Guidelines for proper hydration;
5. Implementing practice/competition modifications according to local temperature and relative humidity readings.
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Meets Criteria</th>
<th>Does Not Meet Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Days 1–5 are the first formal practices. No more than 1 practice occurs per day.</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>2. Total practice time should not exceed 3 hours in any 1 day.</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>3. 1-hour maximum walk-through is permitted on days 1–5, however there must be a 3 hour minimum between practice and walk-through (or vice versa).</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>4. During days 1–2 of first formal practices, a helmet should be the only protective equipment permitted (if applicable). During days 3–5, only helmets and shoulder pads should be worn. Beginning on day 6, all protective equipment may be worn and full contact may begin.</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>A. Football only: on days 3–5, contact with blocking sleds and tackling dummies may be initiated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Full-contact sports: 100% life contact drills should begin no earlier than day 6.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Day 6–14, double-practice days must be followed by a single-practice day. On single-practice days, 1 walk-through is permitted, separated from the practice by at least 3 hours of continuous rest. When a double-practice day is followed by a rest day, another double practice day is permitted after the rest day.</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>6. On a double-practice day, neither practice day should exceed 3 hours in duration, and no more than 5 total hours of practice in the day. Warm-up, stretching, cool-down, walk-through, conditioning and weight-room activities are included as part of the practice time. The 2 practices should be separated by at least 3 continuous hours in a cool environment.</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>7. Because the risk of exertional heat illnesses during the preseason heat-acclimatization period is high, we strongly recommend that an athletic trainer be on site before, during and after all practices.</td>
<td>✅</td>
<td></td>
</tr>
</tbody>
</table>

MEETS KSI SEAL OF APPROVAL

<table>
<thead>
<tr>
<th>State/Entity</th>
<th>Date Guidelines Were Adopted</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCAA</td>
<td>May, 2003</td>
</tr>
<tr>
<td>New Jersey</td>
<td>May, 2011</td>
</tr>
<tr>
<td>National Football League</td>
<td>July, 2011</td>
</tr>
<tr>
<td>Texas</td>
<td>October, 2011</td>
</tr>
<tr>
<td>North Carolina</td>
<td>February, 2012</td>
</tr>
<tr>
<td>Georgia</td>
<td>March, 2012</td>
</tr>
<tr>
<td>Arkansas</td>
<td>June, 2012</td>
</tr>
<tr>
<td>Florida</td>
<td>June, 2012</td>
</tr>
<tr>
<td>Arizona</td>
<td>June, 2012</td>
</tr>
<tr>
<td>Connecticut</td>
<td>March, 2013</td>
</tr>
<tr>
<td>Iowa</td>
<td>April, 2013</td>
</tr>
<tr>
<td>Missouri</td>
<td>May, 2013</td>
</tr>
</tbody>
</table>

Last accessed: 7/2/13
Federal

H.R.2135

Latest Title: Cardiac Arrest Survival Act of 2013

Sponsor: Rep. Pete Olson (TX-22)

Introduced: 5/23/13

Cosponsors: 6

Latest Major Action: 5/24/2013 Referred to House subcommittee.

Status: Referred to the Subcommittee on Health.
State: AED & Cardiac Care

Anyone Can Save A Life Program

AED Registries / Grant Programs

CPR Instruction in Schools
Auto-injectable Epinephrine Pen

Arizona
Illinois
Virginia

© 2013 John T. Parsons
Advocacy & Policy Opportunities

2013 BOC Athletic Trainer Regulatory Conference
Advocacy

Bureaucratic

Legislative

Health

Patient-Centered Care
Sport-related Injury
Educational Accommodation

504 Plans

Individualized Education Plans (IEPs)
Incidence

87% of ATs have had patient requiring academic accommodations
Academic Decline

79% of ATs have had patients with academic decline
## Support Team Personnel

### 37. 5a. Who is involved in the academic support team for concussed student-athletes? [Check all that apply]

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Athletic director</td>
<td>143</td>
<td>46%</td>
</tr>
<tr>
<td>2</td>
<td>Principal</td>
<td>143</td>
<td>46%</td>
</tr>
<tr>
<td>10</td>
<td>Other school administrator outside of athletic department</td>
<td>130</td>
<td>42%</td>
</tr>
<tr>
<td>12</td>
<td>Directing or team physician</td>
<td>145</td>
<td>47%</td>
</tr>
<tr>
<td>13</td>
<td>Student athlete's family (referring) physician</td>
<td>172</td>
<td>56%</td>
</tr>
<tr>
<td>3</td>
<td>School nurse</td>
<td>236</td>
<td>77%</td>
</tr>
<tr>
<td>4</td>
<td>Athletic trainer</td>
<td>273</td>
<td>89%</td>
</tr>
<tr>
<td>5</td>
<td>School guidance/academic counselor</td>
<td>265</td>
<td>86%</td>
</tr>
<tr>
<td>11</td>
<td>Mental health counselor</td>
<td>69</td>
<td>22%</td>
</tr>
<tr>
<td>6</td>
<td>Teacher</td>
<td>240</td>
<td>78%</td>
</tr>
<tr>
<td>7</td>
<td>Coach</td>
<td>118</td>
<td>38%</td>
</tr>
<tr>
<td>8</td>
<td>Parent</td>
<td>191</td>
<td>62%</td>
</tr>
<tr>
<td>9</td>
<td>Other</td>
<td>26</td>
<td>8%</td>
</tr>
</tbody>
</table>

© 2013 John T. Parsons
504 Plan

44. 11. How familiar are you with a 504 plan?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not familiar at all</td>
<td></td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>Minimally familiar</td>
<td></td>
<td>151</td>
</tr>
<tr>
<td>3</td>
<td>Moderately familiar</td>
<td></td>
<td>152</td>
</tr>
<tr>
<td>4</td>
<td>Extremely familiar</td>
<td></td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>691</td>
</tr>
</tbody>
</table>

© 2013 John T. Parsons
### 38. 6. How familiar are you with Individualized Education Plans?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not familiar at all</td>
<td>118</td>
<td>17%</td>
</tr>
<tr>
<td>2</td>
<td>Minimally familiar</td>
<td>198</td>
<td>28%</td>
</tr>
<tr>
<td>3</td>
<td>Moderately familiar</td>
<td>233</td>
<td>34%</td>
</tr>
<tr>
<td>4</td>
<td>Extremely familiar</td>
<td>146</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>695</td>
<td>100%</td>
</tr>
</tbody>
</table>

© 2013 John T. Parsons
Healthy Communities

- School Nutrition
- Nutrition Education
- Body Mass Index Measurement for Students
- Body Mass Index Measurement for Students
- Diabetes Screening at School
- Insurance Coverage for Obesity Prevention
- School Wellness
- Physical Activity or Physical Education in School
- Taxes and Tax Credits
- Task Forces, Commissions, Studies and Other Special Programs

© 2013 John T. Parsons
Percentage of Population Living in a Designated Health Professional Shortage Area, 2011

Source: Health Resources Service Administration, Data Warehouse, May 2011
COMMUNITY PARAMEDICINE

EMT-CP (MN)
School-Based Health Centers
About the School-Based Health Alliance

The School-Based Health Alliance was founded in 1995 and is the national voice for school-based health centers (SBHCs). Built from the grassroots up by individuals from state and federal government agencies, national and regional foundations, child health and education organizations, and SBHCs, we are a true reflection of the field we support. The School-Based Health Alliance advocates for national policies, programs, and funding to expand and strengthen SBHCs, while also supporting the movement with training and technical assistance.

Our Vision

All children and adolescents are healthy and achieving at their fullest potential.

Our Mission

To improve the health status of children and youth by advancing and advocating for school-based health care.
Summary

• State-based concussion legislation is successfully organized around 3 tenets:
  – Education
  – Removal from play upon suspicion
  – RTP w/ clearance

• Concussion has illuminated areas of policy and advocacy need by ATs

• Academic accommodations is a clear example

© 2013 John T. Parsons
Summary

• Trends toward community health and primary care must be leveraged
• Synergistic with secondary school setting push
• Non-AT centric advocacy is best
Thank You

John Parsons, PhD, AT, ATC

jparsons@atusu.edu

Office: 480-219-6032