The Athletic Trainer: Your Ally on the Sidelines, in the Schools, and in the Community

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What is a Certified Athletic Trainer

Athletic Trainers Are:

- Unique health care providers who specialize in the prevention, assessment, treatment and rehabilitation of injuries and illnesses.
- Health care professional who works with physicians to optimize activity & participation of patients & clients.
- Includes the intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations, & disabilities.
- Are not the same as Personal Trainers.
Where Do Athletic Trainers Work?

- Secondary Schools
- College/University
- Professional Sports
- Hospitals/Clinics
- Physician’s Office
- Industrial
- Commercial
- Performing Arts
- Military
- Law Enforcement
• Students who want to become ATC’s must earn a degree from an accredited athletic training curriculum.
• Programs include formal instruction in:
  • injury/illness prevention
  • first aid and emergency care
  • assessment of injury/illness
  • human anatomy and physiology
  • therapeutic modalities
  • nutrition.
• Learning is enhanced through clinical education experiences.
• More than 70 percent of certified athletic trainers hold at least a master’s degree.
AT’s Educational Background

Basic and Applied Sciences
• Human anatomy
• Human physiology
• Biology
• Statistics and research design
• Exercise Physiology
• Kinesiology/Biomechanics
• Chemistry*
• Physics*

*Recommended but not required by some ATEP

Professional Content
• Risk Management and Injury Prevention
• Pathology of Injuries and Illnesses
• Orthopedic Clinical Examination and Diagnosis
• Medical Conditions and Disabilities
• Acute Care of Injuries and Illnesses
• Therapeutic Modalities
• Conditioning, Rehabilitative Exercise & Pharmacology
• Psychosocial Intervention and Referral
• Nutritional Aspects of Injuries & Illnesses
• Health Care Administration
CLINICAL EDUCATION

• Students are required to participate in a minimum of two years of academic clinical education.

• Clinical experiences provide students with opportunities to practice, under the direct supervision of qualified Clinical Instructors (i.e., Certified Athletic Trainer [ATC®] or other credentialed health care professionals).
What can we do for you?

- Injury Prevention
- Rehabilitation
- Nutritional Education
- Strength and Conditioning
- Weight Gain and Loss
- Emergency Care
- Sports Psychology
- Injury Documentation
- Proper Equipment Use
- Taping
- Cardiovascular Training
Common Injuries

- Sprains
- Strains
- Tendonitis
- Concussions
- Fractures
- Dislocations
- Lacerations
- Abrasions
- Contusions
- Inflammation
Not So Common Injuries

- Internal Organ Injuries
- Compound Fx
- Cervical Injuries
- Spinal Injuries
- Infectious diseases
- Cardiac Arrest
Athletic Trainers in the Community

**School Contract** (Employed by the schools or hired through other organizations)

**Fee For Service** (Big River & Highline Soccer Tournaments, Professional Endorsed Basketball Camps)

**Health and Fitness Fairs** (Latina Health Fair, Issaquah Health & Safety, UDOC, Overlake Wellness Fair)

**Education Presentations** (Lakecity Braves, Wellness, Rewards and recognition)

**Athletic Performance Enhancement Programs** (Fit and Fun, ACL Bootcamp, Speed and Agility)

**Summer Camps** (Lakeside High Sport Camps, Game Breaker Lacrosse, UK Elite)

**Sponsorship Events** (Starfire Sports, All Nations Cup, Covey Run, Treeswing’s boardwalk and 5K, Girls on the Run)
Importance of having an ATC active in your Community

- ATC are 1st line of offense/defense
- Only health care provider some are able to see
- On site care
- Education
  - Nutrition
  - Injury Prevention
  - Strength Training and conditioning
  - Psych
  - Liaison
- Mentorship/Support
- Protection for the Athlete
Are ATCs Important……Check out these Numbers!

- 3,134+ Outreach Hours
- 66,000+ Reached
- 7,291 Practice Hours
- 3,889 Event hours
- 5,326 Assessments
- 14,384 Tapings
- 16,097 Ice Therapies
- 392 Referral

Now I know why they call it ICU!
Are ATCs Important......Check out these Numbers!

- 170+ Concussions
- 206 Sprains
- 125 Strains
- 85 Fractures
- 22 Dislocations
- 72 Contusions
ATCs in your Community

• ATC’s employed by
  • Hospital (Sports Medicine)
  • P.T. Clinics
  • Physician Offices
  • School District, Career and Technical Education (CTE) programs
Concussions in Sports

- A concussion is a **brain injury**
- All **concussions are serious**
- Concussions can occur without loss of consciousness
- Concussions can occur in **any sport**
- **Early recognition** and proper management of concussions can help prevent further injury or even death
What is a Concussion?

“A complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces.”

-Zurich Concussion Statement 2008

A concussion is a disturbance in brain function.

It results in a variety of nonspecific symptoms

In a concussion, certain chemical levels are altered at the cellular level.

- Blood supply to the brain decreases.
- The brain’s demand for glucose increases.
- The result is a metabolic imbalance referred to as an “energy crisis.”
Concussion Basics

- A concussion should be suspected in the presence of **ANY ONE OR MORE** of the following:

  - **Symptoms**
    (Headache, nausea, ringing in ears)
  - **Physical signs**
    (unsteadiness, LOC, Appears dazed)
  - **Impaired brain function**
    (e.g. confusion)
  - **Abnormal behavior**
    (e.g. severe anger, sadness)
Recognizing when a concussion occurs

**SIGNS**

- Signs observed by teammates, parents and coaches include:

  - Appears dazed
  - Vacant facial expression
  - Confused about assignment
  - Forgets plays
  - Is unsure of game, score, or opponent
  - Moves clumsily or displays incoordination
  - Answers questions slowly
  - Slurred speech
  - Shows behavior or personality changes
  - Can’t recall events prior to hit
  - Can’t recall events after hit
  - Seizures or convulsions
  - Any change in typical behavior or personality
  - Loses consciousness
Recognizing when a concussion occurs

SYMPTOMS

• Symptoms may include one or more of the following:

- Headaches
- “Pressure in head”
- Nausea or vomiting
- Neck pain
- Balance problems or dizziness
- Blurred, double, or fuzzy vision
- Sensitivity to light or noise
- Feeling sluggish or slowed down
- Feeling foggy or groggy
- Drowsiness
- Change in sleep patterns

- Amnesia
- “Don’t feel right”
- Fatigue or low energy
- Sadness
- Nervousness or anxiety
- Irritability
- More emotional
- Confusion
- Concentration or memory problems (forgetting game plays)
- Repeating the same question/comment
Treatment: Immediate Response

- Any athlete with a suspected concussion should... **IMMEDIATELY BE REMOVED FROM PLAY**
- Should Not... **BE LEFT ALONE** and should not drive a motor vehicle
- Seek Medical Attention right away if: You notice any change in behavior/ **worsening of symptoms**
  - Vomiting, dizziness, **worsening of headache**
  - **excessive drowsiness** or inability to recognize familiar people.
- Seek Health Care Professional afterwards
- No Alcohol
- Do NOT use aspirin or anti-inflammatory medication
Treatment:

24 hours till signs/symptoms clear

- **DO NOT allow athlete** to run/jump, **raise heart rate or put themselves in a situation where they can get hit again**. This involves *playing pickup ball, weight lifting, PE*, or running down the street chasing their friends.

- Athlete may have a hard time with concentration.

- If athlete complains of a severe headache or dizziness limit time at school, no TV and Video Games!

- Allow athlete to rest and stay inactive until all signs and symptoms have cleared

- **Do NOT participate in physical activity until cleared by an appropriate health care professional**
Treatment:
Return to Play Guidelines

• **Athlete will not be returned to play the same day of injury.**

• When returning athletes to play, they will then follow a stepwise symptom-limited program, with stages of progression.
  1. Rest until asymptomatic
  2. Light aerobic exercise (running, biking)
  3. Sport-specific exercise
  4. Non-contact training drills
  5. Full contact training drills after medical clearance
  6. Return to competition (game play)

• Approximately 24 hours (or longer) for each stage.

• If symptoms return at any stage athlete should return to stage 1.

• **MEDICAL CLEARANCE MUST BE GIVEN BEFORE RETURN TO PLAY!**
Zachery Lystedt Law:

• Washington State Legislature
• Develop guidelines and informative handouts for all athletes/families/coaches.
• Signed document stating they know and understand the importance of this issue prior to participating in practice or competition.
• Updated Yearly
Zachery Lystedt Law:

- An athlete who is suspected of sustaining a concussion in the State of Washington
  - **MUST BE HELD OUT.**
    - Once removed, no return until evaluated by a licensed health care provider trained in the evaluation and management of concussion.

- **Licensed Health Care Providers**
  - Medical Doctors (MD)
  - Doctor of Osteopathy (DO)
  - Advanced Registered Nurse Practitioner (ARNP)
  - Physicians Assistant (PA)
  - Licensed Certified Athletic Trainers (AT/L)

Research is currently being done to determine which other licensed health care providers may have sufficient training to qualify to authorize return to play. The WIAA will update schools and this website as this information becomes available.

- **Must have written clearance to return to play!!!**
Concussion Prevention

- Monitor sports equipment for safety, fit, and maintenance. (helmet, mouthguard, pads)
- **Promote safety and rules of the sport**
- Train athletes in appropriate hitting/falling techniques
- Make sure younger athletes are ready to participate at varsity level.
- Head gear for soccer
- Be aware of potential field/gym issues
Real Life Scenario
#1 Elementary School

- Morgan McCracken
- 7-year old Ohio girl
- hit in head w/ baseball in backyard
- Didn’t show signs/symptoms
- 2 days later started getting a severe HA
- Took her to the ED/ CT showed epidural hematoma –
  - immediate operation
- Was able to recover
Real Life Scenario
#2 Junior High School

- David Bosse
- Rose Hill Junior High 9th grade
- In first game got hit, complained of HA next week.
- Told he couldn’t play till HA went away, before next game self report no HA
- 6 plays in collapsed, rushed to Harborview
- Died from Second-Impact Syndrome
Real Life Scenario
#3 High School

- Student-athlete @ Stanwood HS
- Game before got hit and continued to have symptoms; HA and nausea
- Sat out from two practices but played in game.
- “I didn’t say much”
- Got hit in 2nd game; felt throbbing pain in head and arms/legs went numb
- Airlifted to Harborview medical center, was in intensive care for 3 weeks from subdural hematoma
ATCs as an Active part of your Community Outreach

• **PROS:**
  • Generate Appropriate Referrals
  • Health care connections away from the hospital
  • Versatility (vast array of knowledge)
  • Daily interaction with parents coaches and athletes
  • Continual follow up

• **CONS:**
  • Time and availability
  • Community is unaware of local ATC
  • Availability of resources (Funding, supplies, locations)
How ATCs have partnered with SafeKids

- Pre-participation Exams (PPE) education
- EAP (Emergency Action Plan)
- Injury education and prevention information for coaches
- Coach, parent, and athlete education at community health events
SafeKids and ATC Further Educating the Community

- Hydration
- Skin Infections
- Nutrition
- Strength and Conditioning
- Fitness
- Injury Prevention and Rehabilitation
- Heat Illness
- Equipment management (Fitting, use, and care)
- CPR/First Aid
Case #1

- 15 Yr Old Male Football Player
- Crushing Blow
- Pain: lower rib cage on Rt. Side
- Able to walk off field unassisted
- Sideline Assessment
  - Removal From play
  - Athlete Education
  - Parent/coach education
  - Self Referral to ICU
  - Next Steps
Case #2

- 16 year old male
- Presents with Chest Pain
- Collapsed after running and having hard time breathing.
- Hx
- Vitals monitored: BP 135/78 Pulse 120
- Assessment???
- Parents Called
- Refer???
- F/Up
Thank You!

Seattle Children’s Athletic Trainers