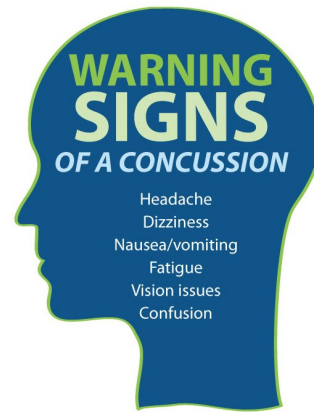


Concussion Awareness  
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“Dancers are “artistic athletes.” They must possess the strength, agility, power and flexibility of any athlete and perform with perfect musicality and emotion, demonstrating the artistry of the dance. As an art form dance continues to push the physical boundaries of the human body, increasing the inherent risks to the dancers. Most injuries are readily acknowledged as a possible outcome of being a performing artist; however, the possibility of a concussion continues to receive little attention by leaders involved in dance education. The majority of dance and physical education instructors continue to be oblivious to the prevalence, diagnostic procedures, symptoms and appropriate reintegration into the dance environment after a concussion. Adapting the existing knowledge regarding concussion and sports, this article provides fundamental information to

support the recovery and return to performance of a dancer with a concussion.”

The Invisible Injury: Supporting the recovery of dancers with concussions:

Robin L. Kish & Chris G. Koutures (2016) The Invisible Injury: Journal of Physical Education, Recreation & Dance, 87:8, 27-33, DOI: 10.1080/07303084.2016.1216482

“Dancers' symptom severity scores appeared to be higher than the values reported for other athletes. Additional studies are needed to establish normative values and develop a model for predicting baseline scores.”

Lauren McIntyre ATC & Marc Campo PhD, PT. Descriptive Values for Dancers on Baseline Concussion Tools Journal of Athletic Training. 2017 Nov;52(11):1035-1040. DOI: 10.4085/1062-6050-52.10.14. Epub 2017 Nov 9.



**WHAT IS A CONCUSSION?: The Invisible Injury**

- Result of direct or indirect force applied to brain
- Concussion is a mTBI (mild traumatic brain injury)
- Most common causes: falls, MVA, assaults, sports injuries, combat
- Misconceptions: impact and/or loss of consciousness to be considered mTBI

**CONCUSSION SYMPTOMS: no patient presents in the same way**

Physical	Cognitive	Emotional
Vestibular	Attention	Frustration Tolerance
Oculomotor	Memory	Anxiety
Headache	Executive Functions	Depression
Fatigue		
Sleep		

**Prevalence of Concussions in Dance:**

- Most think high impact, but what about: partnering, props, vigorous choreography
- The culture of performing arts: “The show must go on” or “What if I get replaced?”
- Supporting a dancer’s return to performance
- Dance USA concussion paper
- 10% of dance related concussions involve loss of consciousness

**Dance Specific Symptoms of a Concussion:**

Treatment Protocols for Dancers:

- “Each concussion requires an individualized treatment plan that attempts to balance limiting physical, cognitive and emotional stressors to the brain while allowing levels of mental activity and exercise that can be tolerated without increasing the intensity of number of post-concussion symptoms.”
- Activity should be kept under the threshold that causes headaches to emerge
  - Cocoon period: complete removal of stimuli
  - Allowing brief (10-15min) intervals of reading, texting, friends etc...
  - Throbbing headache = too much!
- OTC medications: do not rely on it, does it worsen when not taking? Tylenol preferred vs other NSAIDs (CDC)
- Altered sleep schedules: could be due to lack of activity
- Emotional changes: Depression, anxiety, anger
- Keep a journal to record: time of day, music, level of activity, genre of dance



Particular concussion symptoms more troublesome in dancers may include:	
Neck Pain	Difficulty with turning and head control
Dizziness	Influencing body control and timing on the dance floor
Balance Problems	Single-leg movements
Sensitivities to light	Music, teacher’s voice, metronomes, stage lighting and mirrors

**SUGGESTED STEPS TO REINTEGRATE A DANCER AFTER A CONCUSSION:**

	Level of Participation
<b>Step One</b>	Light stretching or exercise bike, individual barre work to focus on technique. No music or lights during these activities. No jumps, turns or partnering.
<b>Step Two</b>	Higher level of conditioning without jumps, turns, partnering or leaps. May mark steps with lower levels of music or lighting. More use of upper body. Can do short intervals of technique classes.
<b>Step Three</b>	Usual levels of music or lighting. Individual jumps, turns or leaps outside of regular company. May participate in choreography classes or company work in a peripheral but not center-stage role, may need more rest breaks, and may not participate in every jump or movement
<b>Step Four</b>	Full rehearsal with center-stage work including full leaps, turns, jumps and partnering with other company members.
<b>Step Five</b>	Full return to performance or competitive- level dancing.

**\*24 hours in between each step to advance\***

School accommodations: Disability Resources for Students (DRS): <http://depts.washington.edu/UWdrs/>

**NO TWO CONCUSSION ARE ALIKE, AND IT IS INAPPROPRIATE TO COMPARE RECOVERY TIMES BETWEEN CONCUSSED INDIVIDUALS.**

**WHEN IN DOUBT, GET CHECKED OUT: IN CASE OF EMERGENCY: ALWAYS CONTACT 911**