

Dance / USA

Task Force on Dancer Health

Concussion Information for Dancers

Concussions can occur in daily activity as well as during any sport or recreational activity, including dance. Concussions can have immediate and lasting effects on an individual. While most concussions are not life-threatening and resolve within a couple of weeks, in some cases the effects of concussions can be serious or prolonged. It is important for dancers, dance educators, dance coaches, parents, and the healthcare community to learn the signs and symptoms of concussions and what to do if a concussion occurs. Dance companies and studios are also encouraged to work with local sports or dance medicine clinicians to develop a clear concussion management plan so that everyone involved knows how best to support dancers who have had a concussion as they heal and eventually return to dance.

What is a Concussion?

A concussion is a mild traumatic brain injury caused by a bump, blow, or jolt to the head, face, neck, or elsewhere on the body where forces travel to the brain. Although this can alter the way the brain normally works, standard medical tests are usually normal. It is rare for a concussion to cause someone to lose consciousness. More commonly, a concussion may affect a dancer's ability to perform daily mental and physical tasks, may result in changes in mood and personality, and may reduce a dancer's ability to safely participate in dance activity. Each concussion is unique and each affects the injured dancer in a different way. Recognition and proper response to concussions are important to help prevent further injury.

How to Recognize Signs and Symptoms of Concussion

The lists below shows symptoms a dancer may experience or demonstrate after sustaining a bump, blow, or jolt to the head, face, neck, or body. Loss of consciousness is not required for the injury to be qualified as a concussion. A concussion should be suspected if such an impact or jolt occurs AND there are changes in the dancer's behavior, thinking, or physical function. Remember, you cannot "see" a concussion and not all dancers will experience or report the symptoms right away. Some dancers may not report a problem until an hour or even days after the injury.

Signs Observed by Others

- Appears dazed or confused
- Is confused
- Forgetfulness
- Is unsure of surroundings
- Moves clumsily/is uncoordinated

Symptoms Reported by Dancer

- Headache or "pressure" in head
- Nausea, vomiting, numbness or tingling
- Balance problems or dizziness
- Double or blurry vision, ringing in the ears
- Sensitivity to light and noise

Signs Observed by Others

Answers questions slowly
Loses consciousness (even briefly)
Mood, behavior, or personality changes
Can't recall events prior to hit or fall
Can't recall events after hit or fall
Seizures immediately after the hit/fall

Symptoms Reported by Dancer

Increased emotional behavior/irritability
Concentration or memory problems
Feeling sluggish, low energy, foggy, groggy
Confusion
Does not "feel right" or "feeling down"
Problems with insomnia or excessive sleep

What to do if a Concussion Occurs

Dancers who experience any of the signs or symptoms listed above following a bump, blow, or jolt to the head, face, neck, or body should STOP DANCING IMMEDIATELY. They should NOT participate in dance or other athletic activities until a physician or other appropriately licensed health care provider with experience in evaluating for concussion says that it is safe to return to activity. Do not try to judge the severity of the injury yourself. A repeat concussion that occurs before the brain has recovered from the first trauma can slow the recovery process and/or increase the chances for long-term problems.

More serious signs of concussion require immediate medical evaluation. The following are considered **DANGER SIGNS**. **If any of the following occur, call 9-1-1 or take the dancer to the emergency department right away:**

- One pupil larger than the other
- Drowsiness or inability to wake up
- Slurred speech, weakness, numbness, or decreased coordination
- Headache that gets worse and does not go away
- Unusual behavior, increased confusion, restlessness, agitation
- Loss of consciousness (passed out/knocked out), repeated vomiting or nausea, convulsions, or seizures

Recovering from Concussion

Most individuals with a concussion will fully recover in a timely manner (1-4 weeks). For some individuals, the signs and symptoms of concussion can last for days, weeks, or longer. Initial concussion management includes both relative physical and mental rest for the first 24-48 hours. Limit screen time to 5-15 mins as tolerated in the first 24-48 hours. Younger, student dancers may need assistance in developing a plan for returning to learning, which will happen at the same time as returning to dance. Low levels of exercise can be helpful after an initial 24-48 hours rest, but it is important to not "push through" any troublesome symptoms, such as headache, nausea, dizziness, confusion, or fatigue. Dancers are cautioned about driving or riding a bicycle while experiencing symptoms. Dancers with a history of mental health conditions (mood disorders, anxiety, or PTSD) may take longer to recover; speak to your treating physician about how to make sure the dancer gets his/her needs met. Dancers who have difficulty sleeping 10 days after injury require further evaluation. If there are questions about activities, current guidelines state dancers should only do mild daily activities that do not increase original symptoms beyond an increase of a "2 out of 10" feeling of symptoms, which can be determined through consultation with a healthcare provider experienced in concussion management.

- **DO NOT RETURN TO DANCE THE SAME DAY AS THE INJURY**, even if symptoms resolve
- **DO monitor for mental or physical deterioration** over the initial few hours after injury
- **DO rest the brain initially**. Like any injured body part, the brain needs rest from activity to promote healing. This can mean rest from television, computers, reading, texting, or even music. After 24-48 hours, light daily activities and walking are okay and can be helpful as long as they do not increase the dancers' symptoms beyond a 2 out of 10 rating (consult a healthcare provider experienced in concussion management for more information).
- **DO NOT** drive; drink alcohol; take sleeping medication, aspirin, or anti-inflammatory medication (e.g. Advil)
- **Acetaminophen** (Tylenol) can be taken safely
- **WAIT to return to dance** after you are cleared by a physician or other appropriately licensed healthcare provider experienced in concussion management. Clearance may include a variety of tests designed to assess brain function.

Returning to Dance

Once their symptoms have sufficiently resolved with daily activity and after they are medically cleared to begin returning to dance, dancers should work with their medical team to develop a return-to-dance protocol.

Components of a stepwise protocol are listed below, and dancers should only progress to the next level if they are symptom-free. **At any stage, if a dancer's symptoms return beyond 2 out of 10, he/she needs to go back to the previous level of activity until the symptoms resolve and should not try to progress for at least 24 hours.** Dancers should move slowly when progressing to the next step. Each step may take a minimum of one day, and dancers will progress at differing rates. Dancers returning to complex choreography and partnering often require additional time and preparation.

- **Symptom-limited activity**
 - daily activities that do not make symptoms worse
 - walking
- **Light aerobic exercise**
 - walking or stationary bike
 - not resistance training
- **Moderate activity and dance-specific training**
 - activities that increase heart rate, adding body/head movement, doing laundry, jogging, brief running
 - limited technique class with some turns, but no jumping or partnering,
 - moderate-intensity weightlifting
- **Heavy non-contact dance training**
 - running, high-intensity stationary bike, normal weightlifting routine
 - full technique class with jumps and turns, but still no partnering
- **"Full contact" dance training**
 - after medical clearance
 - add in partnering with normal class and rehearsals
- **Return to performance**
 - after medical clearance

Whom Might a Dancer Work with Following Concussion

Dancers in a company setting often work with on-site athletic trainers or physical therapists on the return-to-dance progression post-concussion. However, it is also important to identify a sports medicine physician or other appropriately-trained licensed healthcare professional to diagnose a concussion, discuss any medical implications, and coordinate care among the entire healthcare team. Healthcare teams may also include certified athletic trainers, physical therapists, occupational therapists, speech-language pathologists, chiropractors, osteopaths, massage therapy practitioners, acupuncturists, neuropsychologists, and/or psychologists.

Additional Information:

- <https://www.cdc.gov/headsup/index.html>
- <https://orthoinfo.aaos.org/en/diseases--conditions/sports-concussion/>
- <https://www.nsc.org/home-safety/safety-topics/child-safety/concussions>
- <https://bjsm.bmj.com/content/53/4/213>
- <https://bjsm.bmj.com/content/bjsports/57/11/692.full.pdf>

Disclaimer: The information on concussions contained in this paper is intended to help guide and inform the dancer. It is not meant to take the place of the advice of a medical professional. This information is provided by Dance/USA Task Force on Dancer Health.

Updated from original version by Katherine Ewalt, MS, ATC, HHP, BCTMB and Matthew Grierson, MD, FAAPMR, under the auspices of the Dance/USA Task Force on Dancer Health (2024).