

Guidelines for the Medical Management of Concussions

As Applied to Spirit Programs

The following guidelines are general in nature. It is vital that evaluation and return to participation is managed in accordance with your state law or organization policies.

This information is not intended to evaluate or treat a concussion or any injury and is not a substitute for a consultation with a healthcare provider. Each concussion is unique and should be managed on an individualized basis. USA Cheer recommends that you see your physician or a concussion-trained specialist if you suspect a concussion has occurred.

About Concussions

A concussion is a traumatic brain injury caused by a blow to the head or body that causes the head and brain to move back and forth rapidly, resulting in symptoms that may present immediately or after several hours.

Signs & Symptoms of a Concussion:

Symptoms reported by the athlete

- Headache
- Nausea
- Balance problems and dizziness
- Blurred vision
- Sensitivity to bright lights or loud noise
- Feeling “sluggish” or “foggy”
- Altered sleep patterns
- Difficulty concentrating
- Problems with memory

Signs observed by others

- Stunned or confused appearance
- Forgets arm motions or other choreography
- Confused about formations in dances or routines
- Unsure of surroundings (i.e., game score)
- Moves clumsily
- Loss of consciousness
- Forgets events right before or after a blow to the head
- Personality or behavior changes (irritable, agitated, sad)
- Clutches head or slow to get up after a fall or blow to the head

**ANY OF THE SIGNS AND SYMPTOMS LISTED ABOVE MAY INDICATE A CONCUSSION HAS OCCURRED.
WHEN IN DOUBT, SIT THEM OUT, AND KEEP THEM OUT!**

Concussion Management

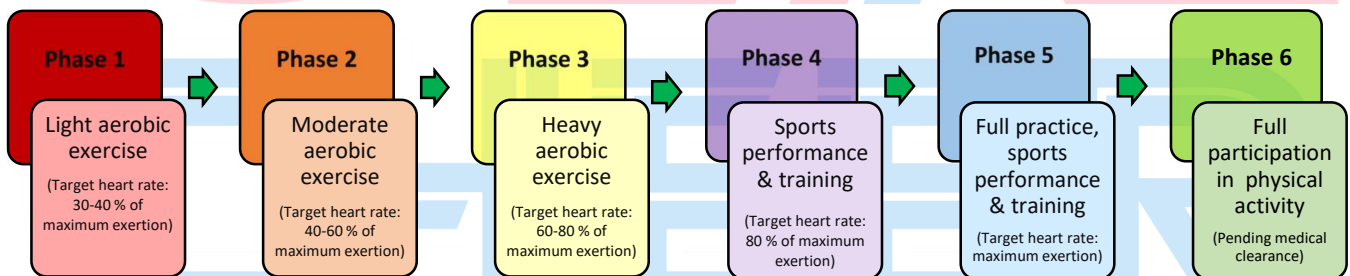
- The medical focus following any concussion should be on any symptom(s) an athlete might experience.
- Return to participation should not be allowed until all symptoms are absent, the athlete has completed a six-phase return-to-participation protocol, and has been cleared by a healthcare provider with experience managing concussions.
- Progression through the protocol is individualized and will be determined on a case-by-case basis. Factors that may affect the rate of progression include previous history of head injury/concussion, duration and type of symptoms, and age of the athlete.
- Depending on the level of symptoms, student-athletes recovering from concussion may find it very stressful to keep up with academic demands while not feeling well physically and cognitively. These individuals may require academic adjustments.
- Student-athletes should reintegrate into academic activity with guidance from their healthcare providers when their symptoms are manageable and appropriate academic support can be provided.
- Academic support may include, but is not limited to, the following adjustments: modified school attendance, preferential seating, shortened assignments, extended deadlines, and frequent breaks.
- Care and recovery following concussion are best managed by an interdisciplinary team of healthcare providers. Members of the team most often include physicians, athletic trainers, sports neuropsychologists, nurses, and physical therapists.

GENERAL RECOMMENDATIONS

Pre-Concussion	All participants should have an annual pre-participation physical evaluation.
	If a school's athletic program or affiliated medical center offers pre-season baseline testing (such as ImPACT, SCAT5, etc.), the team should participate in that testing when possible to help clinicians in the interpretation of tests performed and return to participation activities after a concussion occurs.
	All teams should have an identified healthcare provider (physician or an athletic trainer working under a physician's concussion protocol) for the diagnosis and initial care of concussions.

Post-Concussion	An athlete who has a suspected concussion should be removed from the activity immediately and should not be allowed to return to participation the same day of the incident and without being cleared by a healthcare provider in accordance with state law or organizational policy.
	A physician and members of the interdisciplinary team shall provide guidance through the return-to-participation protocol and shall make any decisions regarding return to physical and cognitive activities. If baseline assessments were conducted, the athlete should demonstrate performance consistent with baseline scores when symptoms have resolved.
	After a diagnosis of concussion, the athlete should follow a return-to-participation protocol. Protocols will vary but should adhere to the general guidelines in the figure below and as outlined by the CDC. An example of a return-to-participation protocol including cheer- or dance-specific activities and exercises is provided on the following page.

- The athlete should return to non-sports activities, such as school, with a greenlight from the healthcare provider to begin the return-to-participation process outlined below.
- Phases 1 – 6 should occur in a supervised practice setting.
- Athlete must have a minimum of one day in each phase.
- An athlete should only move to the next step if they do not have any new symptoms at the current step.
- If an athlete's symptoms come back or if he or she gets new symptoms, this is a sign that the athlete is pushing too hard. The athlete should stop these activities and the athlete's healthcare provider should be contacted. After more rest and no concussion symptoms, the athlete can start at the previous step.



Athletes with persistent headaches, balance, vision, mood, cognitive, or neck issues should be evaluated by specialty-trained clinicians who can develop and supervise rehabilitation procedures (not to be confused with the return-to-participation protocol).

RETURN-TO-PARTICIPATION PROTOCOL

For use by healthcare providers in conjunction with spirit coaches & advisors. The athlete should return to non-sports activities, such as school, with a greenlight from the healthcare provider to begin the return-to-participation process outlined below.

	Activity Level	Functional Exercise/Cheer Activities
Phase 1	Light aerobic exercise (Target HR: 30-40% of maximum exertion)	<ul style="list-style-type: none"> Slow walking on a treadmill or stationary bike (15 minutes) Walk through cheers or dances
Phase 2	Moderate aerobic exercise (Target HR: 40-60% of maximum exertion)	<ul style="list-style-type: none"> Stationary bike, elliptical, or jogging on a treadmill (15 minutes) Spirit activity limited to sideline cheers/chants/simple dances at a low volume Include arm motions while allowing some positional changes and some head movement Light upper-body weight training (50% or less of max)
Phase 3	Heavy aerobic exercise (Target HR: 60-80% of maximum exertion)	<ul style="list-style-type: none"> Stationary bike, elliptical, or jogging on a treadmill (20-30 minutes) 15-yard sprints (as in tumbling passes) Spirit activity limited to sideline cheers/chants/dances including arm motions, but may now introduce quick head movement Mark through dance activity Begin light lower body weight training activities (50% of max) May participate in crunches, push-ups, squats, etc. Balance/proprioception exercises
Phase 4	Sport performance & training (Target HR: 80% of maximum exertion)	<ul style="list-style-type: none"> Full weight lifting, agility, and conditioning activities Light tumbling (hand-supported activities): cartwheels, round off-walk overs, hand springs Cradle catch (no basket tosses or flipping) Simple dismounts for base and flyer Stunting limited to double-legged, chest-level stunts with added spotter Minimum 2-minute break between tumbling passes for a maximum of 30 minutes total participation Moderate dance activity (at ¾ effort) Sideline cheers
Phase 5	Full practice, sport performance & training (Target HR: maximum exertion)	<ul style="list-style-type: none"> Full weight lifting, agility, and conditioning activities Limit stunting to double-legged, extension-level activities with simple dismounts and added spotter Limit gymnastics to basic and moderate tumbling passes: maximum of two rotations with no twisting per any single pass (i.e. round-off back tuck) Minimum of 2-minute break between tumbling passes for a maximum of 60 minutes total participation Full dance participation Sideline cheers
Phase 6	Full sport/physical activity participation (Pending medical clearance)	<ul style="list-style-type: none"> Return to FULL participation/activity including advanced stunts, gymnastics, and dances May practice, compete, and participate in sideline game activities

Guidelines for the Medical Management of Concussions

As Applied to Spirit Activities

Many thanks to our contributing experts:

Jeff Dugas, MD

Andrews Sports Medicine Institute
Medical Director, USA Cheer

Gerald George, PhD.

Professor Emeritus, Department of Kinesiology, University of Louisiana
Editor, USA Cheer Safety Manual

Karen Lew Feirman, DHSc, LAT, ATC

Instructor, Athletic Training Education, University of West Florida
Director of Safety, USA Cheer

Michael Higgins, PhD., LAT, ATC, PT, CSCS

Athletic Training Program Director; Professor of Education, University of Virginia

Ryan “Pete” Manely, DHSc, LAT, ATC

Professor of Athletic Training, Program Director of Graduate & Undergraduate Athletic Training Education,
Director of Athletic Training Services, Sterling College

Shane M. Miller, MD

Texas Scottish Rite Hospital Sports Medicine Center
Associate Professor of Orthopaedics and Pediatrics, UT Southwestern Medical Center at Dallas

Jim Lord

Director of Education and Programs, USA Cheer
Former Executive Director for AACCA

Summer Ott, PsyD

Associate Professor, McGovern Medical School at UT Health, Department of Orthopaedic Surgery
Director, Memorial Hermann Ironman Sports Medicine Institute Concussion Program

To download this guide and for more information on cheerleading concussions, visit usacheer.org/safety

Last update: 5/19/22