

## USA GYMNASTICS – SPORTS CONCUSSION GUIDELINES

**A concussion care guideline** has been developed, via a collaborative effort of the USA Gymnastics medical staff, using the FIG Concussion Guidelines, to provide a standard for the medical care of gymnasts who have a suspected concussion.

The concussion care policy should serve as a standardized method of assessment to ensure accurate diagnosis and appropriate management for the injured gymnast following a sports concussion.

### **Purpose**

The guidelines cover the recognition, medical diagnosis, and management of gymnasts who sustain a suspected concussion during gymnastics activity. It aims to ensure that athletes with a suspected concussion receive timely and appropriate care and proper management to allow them to return to their sport safely. The guidelines may not address every possible clinical scenario that can occur during sport-related activities but includes critical elements based on the latest evidence and current expert consensus.

### **Who should use this protocol?**

This protocol is intended for use by all individuals who interact with gymnasts suspected of sustaining a concussion injury. It is appropriate for all individuals to be aware of proper protocols and management strategies. Individuals may include: the athlete, parents, coaches, officials, and licensed healthcare professionals.

## **1. Concussion Policy & Education**

USA Gymnastics recognizes that gymnastics is a high-risk sport for concussion and that treating concussion as a serious injury is critical. As part of a comprehensive approach to concussion, a gymnastics club or facility should have a written plan for the proper response to concussion, provide training in this plan to all coaches, and provide concussion education to parents, athletes and coaches. Additionally, medical professionals providing medical coverage for gymnastics training, camps, and/or competitions, should be trained in the consensus approach to the care of a suspected or confirmed concussion event.

### *Concussion Policy*

A USAG-member club must have a concussion policy that includes their approach to concussion recognition and care. The concussion policy should be signed by all team parents (if minor athlete) and adult athletes upon registration, and parents should be given a copy. All coaches must be trained in the club's concussion policy. USA Gymnastics has provided the attached sample policy for reference (Appendix 5). However, club owners should ensure that their policy meets or exceeds all state requirements, as some states have specific requirements for concussion education, care, and policy.

### *Concussion Education*

A USAG-member club must provide the *USA Gymnastics: Sports Concussion Overview* document to all new team athletes upon registration and must present this document on an annual basis to all team athletes and parents. Concussion education must be provided for coaches (even non-USAG member coaches) on an annual basis. The Safety Certification Course, which is required for Professional members every 3 years, will contain concussion education that meets the annual requirement for the year in which the Safety Certification is renewed. If your state requires coaches to complete state-mandated concussion education, this training also meets the USAG annual requirement. Professional and Instructor members will be required to verify that they have completed concussion training within the past 12 months upon renewal of their USAG membership. It is best to maintain records of your training for up to 3 years (date of training, attendance and which training you used). Here are some good resources for concussion training:

- USA Gymnastics [Concussion Webinar](#)
- CDC Heads UP: <https://www.cdc.gov/HeadsUp/>
- NFHS Concussion in Sports: <https://nfhslearn.com/courses/concussion-in-sports-2>
- ConcussionWise: <https://sportsafety.com/>
- Partner with a local sports medicine professional to provide concussion education in person

Concussion education should include:

- The definition of concussion
- Possible mechanisms of injury
- Common signs and symptoms
- Steps that can be taken to prevent concussions and other injuries from occurring in sport
- What to do when an athlete has suffered a suspected concussion or more serious head injury
- What measures should be taken to ensure proper medical assessment
- Return-to-School and Return-to-Sport Strategies (See [USAG return to sport progression](#) for gymnastics-specific progressions for each discipline)
- Return to sport medical clearance requirements
- Roles of different health providers in concussion

As part of a comprehensive approach to concussion, USAG will provide the following:

- *USA Gymnastics: Sports Concussion Overview* document
- Concussion Policy for Member Clubs – [SAMPLE](#) (Appendix 5)
- USA Gymnastics [Concussion Webinar](#)

## **2. Concussion Recognition**

All athletes, coaches, parents, judges, and licensed healthcare providers are responsible for understanding the risk of head injury in gymnastics and should be able to recognize and report an athlete who demonstrates signs and/or symptoms of concussion. Formal diagnosis of concussion can only be made by a licensed medical professional following a comprehensive (physical & cognitive) medical assessment. However, if a concussion is suspected and a medical provider is not available, stakeholders are empowered to remove the athlete from play and pursue medical referral. **“When in doubt, sit them out.”**

A concussion should be suspected in any athlete who (1) experiences appropriate mechanism of injury and (2) demonstrates ANY concussion-like signs and symptoms in any intensity or quantity.

(1) Mechanism of Injury

- Sustains direct, indirect or rotational impact to the head, face, neck or body
- Experiences whiplash effect, where the head forcibly moves forward & backward due to impact elsewhere on the body
- Jarring effect from the trunk up to the head and brain (such as a hard fall to the buttocks)

(2) Signs and Symptoms

- Signs of Concussion (Observable by peers)
  - Changes in behavior, thinking, physical functioning
  - Slower processing speed, inability to complete tasks normally
  - Unable to remember directions/instructions as usual
  - Decreased balance and/or spatial awareness
- Symptoms of Concussion (Reportable by injured athlete)
  - Headache
  - Dizziness
  - Mental clouding, confusion, feeling slowed down
  - Visual problems
  - Nausea, vomiting
  - Tiredness
  - Drowsiness, feeling “in a fog”, difficult to concentrate
  - Pressure in the head
  - Sensitivity to light and noise

In some cases, these same mechanisms of injury can cause more serious head or spine injury, which always warrant immediate referral to emergency medical care. If an athlete demonstrates any of the following “Red Flags”, a more severe head or spine injury should be suspected. Red Flags immediately following impact require the athlete to remain still and in place until medical professionals arrive. Delayed Red Flags require the athlete be taken to an Emergency Department immediately.

Red Flags Include:

- Severe or worsening headache
- Weakness or numbness in the arms or legs
- Repeated vomiting
- Slurred speech
- Neck pain
- Double vision
- Seizure activity or convulsions
- Deteriorating conscious state (going in and out of consciousness)

[A reliable resource, containing an overview of concussion recognition is the *Concussion Recognition Tool (CRT-5)*. See *Appendix 1* for details.]

### 3. Onsite Medical Assessment – Health Care Professionals

If there is a concern for a more severe head injury, or a cervical spine event, emergency medical services should be contacted. (**Appendix 1**)

In the event of a suspected concussion, the on-site licensed healthcare professional should complete a formal concussion assessment via available sideline medical assessment tools, such as the Sports Concussion Assessment Tool 5 (SCAT5). (**Appendix 2**)

## Sideline Medical Assessment

If an athlete is suspected of sustaining a concussion and there is no concern for a more serious head or spine injury, **the gymnast must be immediately removed from participation**, evaluated and monitored.

### ***Scenario One – Licensed healthcare professional is present:***

The athlete should be taken to a quiet area and undergo a sideline medical assessment using the Sport Concussion Assessment Tool 5 (SCAT 5) (**Appendix 2**) or the Child SCAT5 (used for ages 5-12) (**Appendix 3**). This policy also includes Maddocks Questions modified for gymnastics, which can be found in **Appendix 4**. The SCAT 5 and Child SCAT 5 are clinical tools that should only be used by a licensed healthcare professional that has experience using them.

It is important to note that the results of SCAT5 and Child SCAT5 testing can be normal in the setting of acute concussion. As such, these tools can be used by licensed healthcare professionals to document initial neurological status but should not be used to make sideline return-to-sport decisions in athletes. Any athlete who is suspected of having sustained a concussion, or has been diagnosed with a concussion, must NOT return to practice or competition and must be referred for further medical assessment by a physician\*\*. Until further assessment is obtained, the athlete should be monitored for new or worsening symptoms and/or signs of concussion. The parent/guardian of a minor athlete or the adult athlete should be provided a copy of the *USA Gymnastics Concussion Advice* sheet and the *USA Gymnastics: Sports Concussion Overview* document.

*\*\*In the event a qualified non-physician USA Gymnastics medical team member is independently providing medical services at a practice, event or camp, and a physician is not available onsite, the non-physician medical provider may use clinical judgement to make a diagnosis of concussion, direct further care, and have autonomy regarding clearance decision-making until a physician is available for consultation, on a case-to-case basis.*

If a gymnast has been removed from participation following a significant impact and has undergone a formal concussion assessment by a licensed healthcare professional trained in concussion care, there are NO visual signs of a concussion, the athlete reports NO concussion symptoms, and the healthcare professional determines that a concussion has not occurred, then the athlete can be returned to play but should be monitored for delayed symptoms. If the athlete develops delayed symptoms, the athlete must be removed from play and must undergo further medical assessment. The parent/guardian of a minor athlete or the adult athlete should be provided a copy of the *USA Gymnastics Concussion Advice* sheet and the *USA Gymnastics: Sports Concussion Overview* document.

### ***Scenario Two – Licensed healthcare professional is NOT present:***

If a possible concussion event has occurred and a licensed healthcare practitioner is NOT available, the athlete should be removed from practice or competition and referred immediately for medical assessment. The athlete must not return to play until receiving formal medical clearance. The parent/guardian of a minor athlete or the adult athlete should be provided a copy of the *USA Gymnastics Concussion Advice* sheet and the *USA Gymnastics: Sports Concussion Overview* document.

## **4. Concussion Management**

### Concussion Management

When an athlete has been diagnosed with a concussion, it is important that all stakeholders are informed, including the athlete's parent/legal guardian, coaches, and healthcare team.

Athletes diagnosed with a concussion, as well as coaches and parents if applicable, should be provided with education about the signs and symptoms of concussion, strategies about how to manage their symptoms, the risks of returning to sport without medical clearance and recommendations regarding a gradual return to school and sport activities which are included in the [USA Gymnastics Concussion Injury Report and Advice](#) sheet and the [USA Gymnastics: Sports Concussion Overview](#) document. Athletes diagnosed with a concussion should be managed by a qualified medical professional and according to international consensus guidelines, which are included in this USA Gymnastics Concussion Guideline.

A progressive recovery process should include:

1. Initial physical and cognitive rest to facilitate symptom resolution
2. Periodic medical assessment to:
  - a. Evaluate recovery process
  - b. Screen for additional symptom generators
  - c. Referral to additional medical specialties for multidisciplinary approach when applicable, such as:
    - Neurology
    - Optometry/ Ophthalmology
    - Physical therapy
    - Psychology/ Psychiatry
    - Vestibular rehabilitation
    - Vision therapy
    - Guidance on return to academic and sport activities
3. Initiation and completion of a sport-specific return-to-gymnastics strategy, under the supervision of a medical practitioner. (See below for details regarding the [Gymnastics Specific Return-to-Sport Guideline](#))

Once the athlete has completed the Gymnastics-Specific Return-to-Sport Guideline and is deemed to be clinically recovered from their concussion, an appropriate medical physician can reassess the athlete for clearance back to full participation.

## 5. Gymnastics-Specific Return-to-Sport Strategy

The following is an outline of the return-to-sport strategy that should be used to help athletes, coaches, certified athletic trainers, and medical professionals facilitate a safe and gradual return to sport activities. Initial symptom resolution is the priority and a return-to-sport strategy should not be pursued until this has been achieved. To be considered “symptom free”, the athlete must be clear of any initial concussion-related symptoms, lack any new onset symptoms, and have successfully returned to school, work, or other cognitive activities without symptoms and with baseline performance.

Return to school and sport average timeline:

\* Timeline varies based on individuals, their co-morbidities including history of prior concussion.

• Adults:	• 7- 10 days
• Children/Adolescents:	• 2-4 weeks

Below, we present the *Gymnastics-Specific Return-to-Sport Strategy* (RTS) that will enable coaches and medical providers to **safely** return their gymnasts to full training. Athletes will need clearance from a physician, prior to starting the program (stage 2) and prior to completion (stage 6).

The athlete should be symptom free for 24-48 hours before starting the *Gymnastics-Specific Return-to-Sport Strategy* and under the guidance of a medical provider. In stage 1, early return to symptom-limited physical activity is allowed, through the guidance of the treating medical provider. Prior to starting RTS (stage 2), the athlete should be able to perform mental activities symptom free. Each step should be separated by 24 hours. If the athlete is younger than 18 years old, consider a longer interval time period between steps. If the athlete experiences worsening or new symptoms at any stage, they should go back to the previous stage that they completed symptom-free, wait for symptoms to resolve (minimum 24 hours), and then begin the progression again.

## USA Gymnastics

# SPORTS CONCUSSION: GYMNASTICS-SPECIFIC RETURN-TO-SPORT STRATEGY



Return-to-Sport strategy starts after symptom free for 24-48 hours and evaluation from a physician. Athlete should be performing mental activities symptom-free, prior to starting the RTS. A minimum, 24 hours should separate each step within this Return-to-Sport strategy

STAGE	AIM	ACTIVITY	GOAL OF EACH STEP
1	Rest followed by light aerobic activity	Daily activities that do not provoke symptoms for 24- 48 hours, then light aerobic activity (~20-30 minutes) without symptoms <ul style="list-style-type: none"> <li>• Stationary bike</li> <li>• Walking or light jogging</li> <li>• Stretching (no inverted positions)</li> </ul>	<ul style="list-style-type: none"> <li>• Gradual reintroduction of work/school activities</li> <li>• Need to be back to full school prior to moving to step 2</li> </ul>
2	Return to early sport specific training: Inversion	<ul style="list-style-type: none"> <li>• Moderate intensity aerobics &amp; sprinting</li> <li>• Landing drills – floor based, low impact</li> <li>• Gymnastics specific strengthening – start slow and then progress</li> <li>• Start basic, non-dynamic inversion (ie. Handstands)</li> <li>• Discipline-specific progression:                             <ul style="list-style-type: none"> <li>- Ar – all events – basic swings/tap swings/cast handstands, leaps, jumps &amp; dance on ground/ low heights, sprints</li> <li>- R – basic dance, no rotation</li> <li>- TT – non-impact, land-based drills, straight bounces</li> <li>- Ac/G – dance choreography only</li> <li>- P – running, jump drills without obstacles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Increase heart rate</li> <li>• Start non-dynamic basic skills</li> <li>• Limited inversion</li> <li>• No twisting or flipping</li> </ul>
3	Progress sport specific training: Flipping	<ul style="list-style-type: none"> <li>• As above with increased intensity</li> <li>• Discipline-specific progression:                             <ul style="list-style-type: none"> <li>- Ar – FX-basic tumbling/B-series on floor/UB&amp;HB-giants/R-static strength holds (ie. L sit, planche), inlocates, dislocates/V - timers</li> <li>- R – advance dance, rotation, basic throws (Indiv./No Group)</li> <li>- Tr – straight bounces, level 10 single flipping skills</li> <li>- DM – soft landing, straight bounces, single rotation on &amp; off</li> <li>- Tu – soft landing, basic HS, RH, RH, BHS, combining two skills</li> <li>- Ac/G – basic balance/lift drills/limit # of lifts, basic tumbling</li> <li>- P – low height hurdles, climbs, flipping drills</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Add full inversion</li> <li>• Advance basic skills</li> <li>• Limited flipping</li> <li>• No twisting</li> </ul>
4	Progress sport specific training: Twisting	<ul style="list-style-type: none"> <li>• As above with increased complexity</li> <li>• Discipline-specific progression:                             <ul style="list-style-type: none"> <li>- Ar – add twisting, complex flipping, release timers, high beam</li> <li>- R – add full throws, rotation, sequences (Indiv./No Group)</li> <li>- Tr – add double salto skills and single twisting skills</li> <li>- DM – soft landings, single mount flipping skills, double landing skills, single twist on or off</li> <li>- Tu – soft landing, combining skills down the floor, double salto, complex flipping, single twist</li> <li>- Ac/G – progress from basic to advance balance, lift skills, twisting</li> <li>- P – high height hurdles, climbs, flip &amp; twist without obstacles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Add complex flipping</li> <li>• Start basic twisting</li> </ul>
5	Progress sport specific training: Advanced Skills  <i>* Physician clearance required to move to step 6</i>	<ul style="list-style-type: none"> <li>• As above with increased complexity</li> <li>• Discipline-specific progression:                             <ul style="list-style-type: none"> <li>- Ar – complex skills, higher risk skills (i.e. release skills)</li> <li>- R – continue full skills/sequences, integrate with Group</li> <li>- Tr – working rotation and twisting, progress to loop skills 1-5/5-10 together with limited turns</li> <li>- DM – hard landings, progress to mounts and dismounts in limited #</li> <li>- Tu – combo of inverted skills and one twisting skill in combination, complex flip/twist skills, basic sequences</li> <li>- Ac/G – add full tumbling, lift, balance skills, progress to full routines with choreography</li> <li>- P – add flip/twist with obstacles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Combine complex inversion and rotation</li> <li>• Improve endurance &amp; strength</li> </ul>
6	Return to full training	<ul style="list-style-type: none"> <li>• All disciplines – full clearance</li> <li>• Focus on slow increase in volume, to build stamina &amp; strength</li> <li>• Progress through the following steps:                             <ol style="list-style-type: none"> <li>1. Single skill elements</li> <li>2. Combined elements/Sequences</li> <li>3. Routine parts</li> <li>4. Full routines</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Final full reintegration</li> <li>• TT if symptoms reoccur go back to step 3</li> </ul>

Ar = Artistic; R = Rhythmic; TT = Tumbling & Trampoline; Ac/G = Acro/Group; P = Parkour; FX = Floor Exercise; B = Beam; PH = Pommel Horse; PB = Parallel Bars; UB = Uneven Bars; R = Rings; HB = High Bar; Indiv = Individual; Tr = Trampoline; DM = Double Mini; Tu = Tumbling



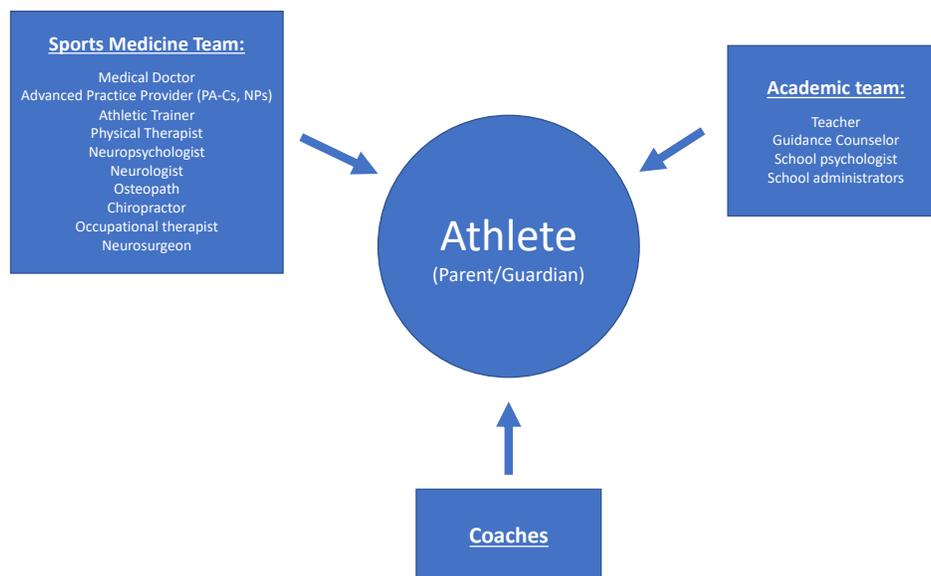
**Note: If the athlete experiences worsening or new symptoms at any stage, they should go back to the previous stage that they completed symptom-free, wait for symptoms to resolve (minimum 24 hours), and then begin the progression again.**

## 6. Multidisciplinary Concussion Care

Most athletes who sustain a concussion while participating in sport will make a complete recovery and be able to return to full school and sport activities within 2-4 weeks of injury. However, some individuals will experience symptoms that persist beyond this time frame. If available, individuals who experience persistent post-concussion symptoms (>4 weeks for youth athletes, >2 weeks for adult athletes) may benefit from a supervised multidisciplinary approach that may include medical doctors and advanced practice providers who are experts in sport concussion. The following is a list of possible providers: certified athletic trainers, physical therapists, occupational therapists, neuropsychologists, neurologists, chiropractors, osteopathic physicians, neurosurgeons, neuro-optometrists, and other medical providers trained in concussion management.

A referral to other multidisciplinary practitioners for assessment should be made on an individualized basis at the discretion of an athlete's medical team. Depending on the clinical presentation of the individual, this treatment plan may involve a variety of health care professionals with areas of expertise that address the specific needs of the athlete.

If the athlete is currently enrolled in school, it may be beneficial to discuss their care with their academic team in order to make necessary modifications. This may include teachers, guidance counselors, school psychologists, and school administrators.



## 7. Return to Sport

Athletes who have been determined to have not sustained a concussion and those that have been diagnosed with a concussion and have successfully completed their *Gymnastics-Specific Return-to-Sport Strategy*, can be considered for return to full sports activities. The final decision to medically clear an athlete to return to full sport activity should be based on the clinical judgment of a physician and the athlete's medical team.

The following criteria must be met prior to return to gymnastics after a concussion event:

1. Gymnast is consistently symptom free
2. Successful reintegration of symptom-free activities of daily living, as well as academic and/or work activities
3. Successful completion of the *Gymnastics-Specific Return-to-Sport Strategy*
4. A final evaluation by a physician and the athlete's medical team is completed and the athlete is cleared to return to full gymnastics activities

Following return to full activities, if the athlete experiences any new concussion-like symptom, they should be instructed to stop gymnastics immediately and undergo reassessment with their medical team.

Special thanks to the following who contributed to this document:

1. USA Gymnastics Medical Staff
2. FIG [Concussion Policy](#)
3. Parachute Canada. Parachute (2017). [Canadian Guideline on Concussion in Sport](#).

# CONCUSSION RECOGNITION TOOL 5 ©

To help identify concussion in children, adolescents and adults



Supported by



## RECOGNISE & REMOVE

Head impacts can be associated with serious and potentially fatal brain injuries. The Concussion Recognition Tool 5 (CRT 5) is to be used for the identification of suspected concussion. It is not designed to diagnose concussion.

### STEP 1: RED FLAGS – CALL AN AMBULANCE

If there is concern after an injury including whether ANY of the following signs are observed or complaints are reported then the player should be safely and immediately removed from play/game/activity. If no licensed healthcare professional is available, call an ambulance for urgent medical assessment:

- Neck pain or tenderness
- Double vision
- Weakness or tingling/burning in arms or legs
- Severe or increasing headache
- Seizure or convulsion
- Loss of consciousness
- Deteriorating conscious state
- Vomiting
- Incessantly restless, agitated or combative

### Remember:

- In all cases, the basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Assessment for a spinal cord injury is critical.
- Do not attempt to move the player (other than required for airway support) unless trained to do so.
- Do not remove a helmet or any other equipment unless trained to do so safely.

If there are no Red Flags, identification of possible concussion should proceed to the following steps:

## STEP 2: OBSERVABLE SIGNS

Visual clues that suggest possible concussion include:

- Lying motionless on the playing surface
- Slow to get up after a direct or indirect hit to the head
- Disorientation or confusion, or an inability to respond appropriately to questions
- Balance, gait difficulties, motor incoordination, stumbling, slow laboured movements
- Blank or vacant look
- Facial injury after head trauma

© Concussion in Sport Group 2017

## STEP 3: SYMPTOMS

- Headache
- "Pressure in head"
- Balance problems
- Nausea or vomiting
- Drowsiness
- Dizziness
- Blurred vision
- Sensitivity to light
- Sensitivity to noise
- Fatigue or low energy
- "Don't feel right"
- More emotional
- More Irritable
- Sadness
- Nervous or anxious
- Neck Pain
- Difficulty concentrating
- Difficulty remembering
- Feeling slowed down
- Feeling like "in a fog"

## STEP 4: MEMORY ASSESSMENT

(IN ATHLETES OLDER THAN 12 YEARS)

Failure to answer any of these questions (modified appropriately for each sport) correctly may suggest a concussion:

- "What venue are we at today?"
- "Which half is it now?"
- "Who scored last in this game?"
- "What team did you play last week/game?"
- "Did your team win the last game?"

## Athletes with suspected concussion should:

- Not be left alone initially (at least for the first 1-2 hours).
- Not drink alcohol.
- Not use recreational/ prescription drugs.
- Not be sent home by themselves. They need to be with a responsible adult.
- Not drive a motor vehicle until cleared to do so by a healthcare professional.

The CRT 5 may be freely copied in its current form for distribution to individuals, teams, groups and organisations. Any revision and any reproduction in a digital form requires approval by the Concussion in Sport Group. It should not be altered in any way, rebranded or sold for commercial gain.

**ANY ATHLETE WITH A SUSPECTED CONCUSSION SHOULD BE IMMEDIATELY REMOVED FROM PRACTICE OR PLAY AND SHOULD NOT RETURN TO ACTIVITY UNTIL ASSESSED MEDICALLY, EVEN IF THE SYMPTOMS RESOLVE**

© Concussion in Sport Group 2017

## **Appendix 2 – Sports Concussion Assessment Tool 5 (SCAT5)**

<https://bjsm.bmj.com/content/bjsports/51/11/851.full.pdf>

## **Appendix 3 – Child – Sports Concussion Assessment Tool 5 (Child-SCAT5)**

<https://bjsm.bmj.com/content/bjsports/early/2017/04/26/bjsports-2017-097492childscat5.full.pdf>

## **Appendix 4 – Maddocks Questions for Gymnastics**

Maddocks questions are used in many sports as part of the on-field assessment for concussion. These questions have generally been utilised in team sports.

Below we propose the following as an appropriate set of Maddocks Questions for Gymnastics:

- Where are you doing gymnastics today?
- What skill were you attempting?
- What was the last event you participating on?
- Who was on the event before you?
- How many events do you have left?

## Appendix 5 – SAMPLE Club Concussion Policy



# USA Gymnastics Member Club Sample Concussion Policy Template

The following template is designed as an aid to USA Gymnastics member clubs to consider using in order to satisfy USA Gymnastics member club requirements and concussion safety protocols. The template highlights all components of the USA Gymnastics Concussion Safety Policy and provides shaded cells that clubs may use to personalize their protocol.

Member clubs are not required to use the template; rather, it is offered as a resource to support member clubs in their concussion safety efforts. The content of this template is offered for educational purposes only and is not intended to constitute, or be a substitute for, medical or legal advice. The content is not intended to be exhaustive, and we encourage membership to review these materials with applicable medical, legal and risk management authorities to determine whether and how best to use this information to address individual member club risks and state requirements.

## Club Name Concussion Safety Protocol

### Introduction

Club Name is committed to protecting the health of and providing a safe environment for each of its participating athletes. We recognize that gymnastics is a high-risk sport for concussion. To this end, Club Name has adopted the following Concussion Safety Protocol for all athletes. This protocol identifies expectations for the club's concussion management practices as they relate to (1) the definition of sport-related concussion; (2) preseason education; (3) recognition and diagnosis; (4) post-concussion management; (5) return-to-learn & sport; and (6) limiting exposure to head trauma.

### 1. Definition of Sport-Related Concussion

The Consensus Statement on Concussion in Sport, which resulted from the 5th international conference on concussion in sport, defines sport-related concussion as follows:

Sport-related concussion (SRC) is a traumatic brain injury induced by biomechanical forces. Several common features that may be utilized to clinically define the nature of a concussion head injury include:

- SRC may be caused either by a direct blow to the head, face, neck or elsewhere on the body with an impulsive force transmitted to the head.
- SRC typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, signs and symptoms evolve over a number of minutes to hours.
- SRC may result in neuropathological changes, but the acute clinical signs and symptoms largely reflect a functional disturbance rather than a structural injury and, as such, no abnormality is seen on standard structural neuroimaging studies.
- SRC results in a range of clinical signs and symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive features typically follows a sequential course. However, in some cases symptoms may be prolonged.

## 2. Preseason Education

All athletes and parents of minor athletes will be provided and allowed an opportunity to discuss educational material (e.g., the USA Gymnastics Sports Concussion Overview) and be required to sign an acknowledgement, on an annual basis and prior to participation, that they have been provided, reviewed and understood the concussion education material.

All coaches involved in athlete health and safety decision making are required to complete concussion education training prior to coaching and annually thereafter. Coaches must be allowed an opportunity to discuss educational material (e.g., the USA Gymnastics Sports Concussion Guidelines, the USA Gymnastics Sports Concussion Overview) and be required to sign an acknowledgement, on an annual basis, that they have been provided, reviewed and understood the concussion education material.

Concussion education should include:

- The definition of concussion
- Possible mechanisms of injury
- Common signs and symptoms
- Steps that can be taken to prevent concussions and other injuries from occurring in gymnastics
- What to do when an athlete has suffered a suspected concussion or more serious head injury
- What measures should be taken to ensure proper medical assessment
- Return-to-School and Return-to-Sport Strategies (See [USAG return to sport progression](#) for gymnastics-specific progressions for each discipline)
- Return to sport medical clearance requirements

## 3. Recognition and Diagnosis of Concussion

All coaches in a member club must be able to recognize the potential mechanism of injury of a concussion and the signs and symptoms of acute concussion. Coaches must immediately discontinue training or competition for anyone who is suspected of having a concussion and must monitor the athlete until a parent arrives. Coaches must be able to recognize red flag signs and symptoms and must activate 911 if these signs and symptoms are present.

Medical personnel with training in the diagnosis, treatment and initial management of acute concussion will be present at all high-risk USAG sanctioned competitions (see Rules & Procedures for definition of high-risk for your discipline).

Any athlete that exhibits signs, symptoms or behaviors consistent with concussion:

- Must be removed from practice or competition until they are evaluated by a medical professional.
- Must be evaluated by a physician (or physician designee) with concussion experience.
- May only return to play the same day if onsite medical personnel determine that concussion is no longer suspected.

#### **4. Post-concussion Management**

Activation of emergency action plan must occur for any of the following scenarios following a suspected concussion:

- Severe or worsening headache
- Weakness or numbness in the arms or legs
- Vomiting
- Slurred speech
- Neck pain
- Double vision
- Seizure activity or convulsions
- Agitated or combative
- Loss of consciousness or deteriorating conscious state (going in and out of consciousness)

Because concussion may evolve or manifest over time, for all suspected or diagnosed concussions, athlete should be monitored by club personnel trained in concussion until a parent arrives. An athlete should never be allowed to drive him/herself home after a suspected concussion.

For all cases of suspected or diagnosed concussion, there must be documentation that post-concussion plan of care was communicated to both the athlete and another adult responsible for the athlete, using the [USA Gymnastics Sports Concussion Information](#) form.

#### **5. Return-to-Learn & Sport**

Prior to return to gymnastics after a concussion event, the athlete must be symptom free with all activities of daily living and academic activities. Performance of academic activities must be back to the athlete's baseline and without modification.

Return-to-sport progressions should not begin until the athlete has completed an unrestricted return-to-learn progression. Initiation of the return-to-sport protocol must be approved by a physician or his/her medically qualified designee.

The timeline for return-to-sport varies based on individuals and other medical conditions including prior history of concussion. It generally takes longer for children and adolescents to return-to-sport than it does for adults.

Final determination of unrestricted return-to-sport will be made by a physician or his/her medically qualified designee following implementation of an individualized, supervised stepwise return-to-sport progression detailed in the USA Gymnastics [Gymnastics-Specific Return-to-Sport Strategy](#) document that includes:

1. Rest followed by light aerobic activity.
2. Return to early sport training: Inversion.
3. Progress sport specific training: Flipping.
4. Progress sport specific training: Twisting.
5. Progress sport specific training: Advanced Skills (physician clearance required to move to step 6).
6. Return to full training.

The above stepwise progression will be supervised by a health care provider with expertise in concussion, with it being typical for each step in the progression to last at least 24 hours.

**NOTE:** If at any point the athlete experiences a return of concussion-related symptoms, they should go back to the previous stage that they completed symptom-free, wait for symptoms to resolve (minimum 24 hours), and then begin the progression again. The minor athlete's parent should always be notified if the athlete becomes symptomatic.

## 7. Limiting Exposure to Head Trauma

Club Name is committed to protecting the health of and providing a safe environment for each of its participating athletes. We will provide a safe environment for our athletes by:

1. Ensuring gymnasts have completed proper progressions prior to trying a new skill.
2. Using proper mats and equipment setup.
3. Having spotters in place at practice and during competition.
4. Ensuring the area is clear prior to beginning a skill to prevent collisions.
5. Ensuring equipment is properly maintained and inspected.

**Club Name**  
**Concussion Management Plan**

By signing and dating this form, I hereby acknowledge, that I will adhere to the club's Concussion Safety Protocol.

***Coach/Parent of Minor Athlete/Athlete***

Print Name: \_\_\_\_\_

Minor Athlete's Name: \_\_\_\_\_

Sign: \_\_\_\_\_

Date: \_\_\_\_\_