

Making the Call:

On-court Emergency Reference Guidelines



Physicians Plus : **MERITER**

Concussion : When In Doubt – Sit Them Out!

Concussion Assessment

- Monitor athlete regularly – if symptoms worsen (vomiting, decreasing alertness...) athlete should be taken directly to the emergency room for immediate medical care

Guidelines

- Any athlete with a suspected concussion should be referred to their physician for further evaluation and proper treatment
- Until the athlete is evaluated by their physician, the athlete should limit physical activity and avoid use of computer, video games, texting, etc to prevent exacerbation of headache or other concussion symptoms
- Tylenol is THE ONLY acceptable pain reliever for headaches and other concussion symptoms but athletes/parents should FIRST consult with their physician.



Return to Play

- Athletes must pass ALL portions of the Cognitive Testing Protocol at the initial evaluation. The athlete must still wait 15 minutes and then pass repeated testing of sport related movements with NO signs or symptoms (headache, nausea, etc).
- If an athlete exhibits any signs/symptoms of a concussion they should NOT return to play the same day and must be cleared by a licensed medical professional before returning to competition.

Cervical Spine Injury

- Any athlete who loses consciousness must be assumed to have a neck injury until proven otherwise
- Other signs of a cervical spine injury include: numbness/tingling/weakness in the extremities, tenderness right over the center of the spine (on bone), obvious deformity
- If there is any concern of a neck injury the athlete should not be moved from the court
- Keep the athlete still, stabilize their head and neck, and call 911.

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Be Prepared!
CONCUSSION

Signs/Symptoms of a Concussion:

Signs observed by coaching staff	Symptoms reported by athlete
<input type="checkbox"/> Appears to be dazed or stunned <input type="checkbox"/> Is confused about assignment <input type="checkbox"/> Forgets plays <input type="checkbox"/> Is unsure of game, score, or opponent <input type="checkbox"/> Moves clumsily <input type="checkbox"/> Answers questions slowly <input type="checkbox"/> Loses consciousness (even temporarily) <input type="checkbox"/> Shows behavior or personality changes <input type="checkbox"/> Forgets events prior to hit (retrograde amnesia) <input type="checkbox"/> Forgets events after hit (anterograde amnesia)	<input type="checkbox"/> Headache <input type="checkbox"/> Nausea <input type="checkbox"/> Balance problems or dizziness <input type="checkbox"/> Double or fuzzy vision <input type="checkbox"/> Sensitivity to light or noise <input type="checkbox"/> Feeling sluggish <input type="checkbox"/> Feeling "foggy" <input type="checkbox"/> Change in sleep pattern <input type="checkbox"/> Concentration or memory problems

On-court Cognitive Testing

Orientation: Ask the athlete the following questions:

- What gym is this?
- What month is it?
- Who is the opposing team?
- What city is this?
- What day is it?

Anterograde amnesia: Ask the athlete to repeat the following words:

- Girl, dog, green

Retrograde Amnesia: Ask the athlete the following questions:

- What happened in the prior quarter/period?
- What do you remember just prior to the injury?
- What was the score of the game prior to the injury?
- Do you remember the injury?

Concentration: Ask the athlete to do the following:

- Repeat the days of the week backward (starting with today)
- Repeat these numbers backward
63 (36 is correct) 419 (914 is correct)

Word List Memory: Ask the athlete to repeat the three words from earlier:

- Girl, dog, green

Neurological Testing

Speech: slurring of words

Arm Drift: Ask athlete to stand with arms out front and parallel to the floor, palms down. Then, ask athlete to close eyes while in the position. See if one of their arms drifts out of position. Any movement is abnormal.

Coordination: heel-to-toe walking, finger to nose

Sport Related Movements: Ask athlete to perform various activities

- run, jump, cut, push-ups, sit-ups, jumping jacks. Any inability to perform these movements without symptoms is abnormal.

Any failure should be considered abnormal and the athlete must NOT return to play that day. Athletes should be referred to their physician for further evaluation of any suspected concussion.

Signs & Symptoms
On-Court Testing

On-court Injury Management



Acute Injuries Requiring Immediate Medical Care

- Any head/neck injury with or without loss of consciousness, numbness/tingling/weakness in the extremities, or centralized pain over the back of the neck (cervical vertebrae)
- Athletes that hear/feel a "pop" and have signs of deformity or misalignment of a bone, joint or muscle
- Any discoloration of a limb that may indicate vascular compromise
- Athlete with immediate, localized pain and swelling – particularly over a bone or joint
- Athlete that is unable to bare weight, move or use the affected area

Management

1. Immobilize injured area
 - Upper extremity – apply splint, ace wrap, place in a sling
 - Lower extremity – apply splint, ace wrap, use crutches
 - Head/Neck – do not move athlete from court, keep them still, immobilize their head/neck, call 911
2. RICE (Rest, Ice, Compression, Elevation)
3. Refer athlete for further evaluation by a medical professional – No Return to Play

Acute Injuries NOT Requiring Immediate Medical Care

- Above criteria does not apply
- Athlete able to get up and walk off court independently
- Athlete completes functional test 100% with no pain, giving way, or other limitation
 - Athlete is able to return to play

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Nutrition : Fueling Up



Pre-Game Meal

- Should be eaten 2-4 hours before competition
- Avoid sugar. Don't over-do fat, protein, and fiber to ease digestion
- Don't introduce new meals/foods - Stick with foods the athletes typically eat to avoid risk of upset stomach
- Athletes should eat a pre-game snack (approximately 150 calories) 1 hour before competition

Game Time Snacks

- Orange slices, clementines, bananas, grapes, melon, strawberries, apple slices
- Water, sports drinks

Post-Game Refueling

- Try to have a meal/snack within 30 minutes of after competition to begin refueling
- Eat foods high in carbohydrates and include protein to replenish glycogen (main fuel for muscles)

Example Pre/Post Game Meal = Spaghetti and meat sauce, peach, skim milk, glass of water

Example Post-Game Snack = 1 cup fruit yogurt, 1 apple, 4 graham cracker squares, sports drink

Pre-Game/Portable Snacks: dried fruit, fresh fruit, pretzels, trail mix, fig newtons, animal crackers, cereal, bagels, graham crackers, granola bars, yogurt, string cheese.

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Functional Testing For Return to Play

Head/Neck

- Serious neck injury must first be ruled out per cervical spine guidelines before athlete is moved from the court
- Successful completion of cognitive assessment to rule out concussion
- Full pain free neck range of motion (look up, down, left, right, bend left & right)
- Full upper extremity strength bilaterally
- Successful completion of functional sport testing per concussion assessment (run, jump, cut, push-ups, sit-ups)

Upper Extremity

- Full pain free range of motion (over head, behind neck, across to opposite shoulder, up behind back)
- Full strength against manual resistance – symmetrical
- Able to compete 10 push-ups

Lower Extremity

- Pain and limp free walking
- Full pain free range of motion (full/deep squat)
- Back pedal – 20 yds
- Sprint – 20 yds
- Lateral Shuffle – 5 times L and R
- Figure 8 run – 3 complete "8s"

GOAL: Athlete must be pain free and at full function to minimize the risk of further injury

Functional Testing

Proper Hydration

Dehydration

- Signs/Symptoms: dry mouth, thirst, headache, dizziness, cramps, excessive fatigue, decreased performance
- Treatment: move athlete to shaded or air conditioned area, replenish fluids

Proper Hydration

- **Hydration Before Exercise** – should drink 16 oz (500 mL) 2-3 hours before event
– May want to consider mandatory pre-exercise hydration
- **Hydration During Exercise** – recommended to drink 8 oz (200 mL) every 15-20 minutes during activity
- **Rehydration After Exercise** – drink 8 oz of fluid every 15 minutes to replenish fluid loss back to pre-exercise body weight
- **Formula for Rehydration** – body weight lost (1# body weight = 16 oz of fluid) + fluid consumed during exercise = sweat/fluid loss from exercise
- To maximize rehydration for repeat competition – rehydrate to 150% (i.e. formula = 32 oz, rehydrate with 48 oz)

How to Know Athletes are Hydrated

- Urine color – light/clearish yellow (dark urine = dehydration)
- Lack of thirst
- At normal body weight



Hydration