## Athlete presents with signs, symptoms or behaviors of a concussion.

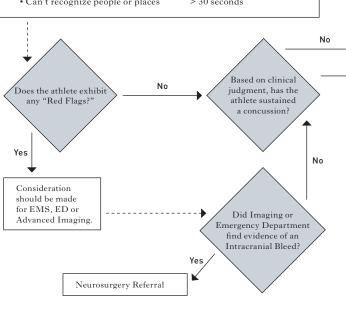
## Sports Concussion Algorithm

(Health Care Provider Information)

## Perform Concussion Evaluation

Evaluation should include assessment for these RED FLAGS

- Headache that worsens
- Seizure
- Looks very drowsy or can't be awakened
- Repeated vomiting
- · Slurred speech
- Can't recognize people or places
- Increasing confusion or irritability
- Weakness or numbness in arms or legs
- · Unusual behavioral change
- Loss of consciousness
- > 30 seconds



1. Recommend modifications in both school and personal activities

• Physical Rest (no running, biking, lifting, etc.)

· Cognitive Rest (no school work, video games, etc.)

2. Hand out patient information form and continue to monitor signs and symptoms

Continue to Monitor

Failure to resolve after

a Specialty Care Center

No

Νo

Is the athlete free of all

Signs and Symptoms at Rest? (also free of neurocognitive, balance & neurological changes?)

3-4 weeks should warrant

consideration for referral to

## Concussion Modifiers\*

- Duration of symptoms
- Number of symptoms
- · Severity of symptoms
- Prolonged LOC (>30 seconds)
- · Presence of amnesia
- · History of concussive convulsion
- Number of concussions
- History of two concussions in a short period of time
- · Concussion caused by a lower threshold force
- Age (younger athlete takes longer to recover)
- · History of migraine (personal or family)
- · History of depression or other mental health disorder
- History of ADD/ADHD
- · History of a learning disability
- History of a sleep disorder
- Psychoactive medication
- Dangerous style of play
- High-risk activity

\*McCrory P., et al. Br J Sports Med 2009

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Begin Graduated "Return-to-Play" Protocol\* (There should be a minimum of 24 hours between stages; however the speed of progression should be

If return of signs or symptoms during the protocol, then re-evaluation is warranted and athlete must wait 24 hours and be free of "Signs and Symptoms at Rest" before returning to Stage 1 of protocol.

based on clinical judgment with consideration of the presence of any of the Concussion Modifiers)

Monitor and/or treat as

Follow-up Evaluation

1. Progression back to daily

as symptoms improve

as activities increase

life and school activities

2. Monitor signs and symptoms

clinically indicated

Stage 1-Light Aerobic Exercise (Exertion Level: HR range 100-140 / RPE range 3-4)

Stage 2-Sport-Specific Exercise (Exertion Level: HR range 120-160 / RPE range 4-6)

Stage 3-Non-Contact Training Drills (Exertion Level: HR range 140-180 / RPE range 6-8)

Stage 4-Full Contact Practice (Exertion Level: HR range 160-200 / RPE range 8-10)

\*McCrory P., et al. Br J Sports Med 2009



**RETURN TO PLAY**