

## NEWS for Taekwondo athletes, instructors and parents

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New recommendations on concussion were published last week in the British Journal of Medicine.

The 5<sup>th</sup> international symposium on concussion was held in Berlin in the fall of 2016, and experts from all over the world had input regarding recognition, assessment and management of concussion in sport.

For the details please read the article in full, the following are the highlights of these publications:

**“Concussion Recognition Tool 5<sup>th</sup> Edition or CRT5”** This tool is designed to help non medically trained individuals to recognize the signs and symptoms of possible sport related concussion.

Published: BJSM Online First, April 26<sup>th</sup> 2017 as 10.1136/bjsports-2017-097508CRT5

The most important modifications to this tool are

1. **RECOGNISE and REMOVE:** when a **non -medical** person observes and injured athlete after an impact involving the head or neck the following **red flags** are important:

Neck pain or tenderness

Double vision

Weakness or tingling, burning to arms or legs

Severe or increasing headache

Seizure

Loss of consciousness

Deteriorating consciousness state

Vomiting

Increased restlessness or combativeness

**IF ANY of these are present safely remove from play immediately, if there is no qualified health care professional available call an ambulance**

**IF THERE ARE NO RED FLAGS, then the tool lists observable sign as STEP 2:**

Examples slow to get up, balance gait difficulties, lying motionless, disorientation, and blank look, then

**STEP3 ask about symptoms:** there are **20** possible symptoms associated with concussion

Most common headache or pressure in head, dizziness, blurred vision sensitivity to light

**STEP 4 Memory: such as**

What venue are we today, what round is it, how many matches have you had today?

The tool provides recommendation to the non-medical person about removing the athlete from play and should not return to activity until assessed medically.

## OTHER HIGHLIGHTS:

**Prior to return to play, the group recommends a complete assessment by a medical doctor.** The medical assessment should include a neurological exam, assessment of mental status, cognitive function, sleep, balance. The medical doctor may consider emergent imaging such as a CT scan **ONLY if a more severe brain injury is suspected.**

**REST:** the group recommends prescribed **complete rest for 24-48 hours** during the acute phase with a gradual and progressive increase in activity as long as the patient does not experience symptom return or worsening of symptoms. **The graduated return to play strategy remains a MINIMUM 6 day process**

**RETURN TO LEARN FIRST BEFORE RETURN TO PLAY:** for children and adolescents. Prior to returning to sport the child or adolescent must be gradual re introduced to school. Patients may have to start with short periods of homework only before going to school, this may be increased to part time attendance at school for a period of time, in order to ensure the patients symptoms do not worsen with the increased cognitive activity. Graduated return to learn strategy is Table 2 of the CONSENSUS STATEMENT pg 4 of the document.

**FOR MEDICAL PROVIDERS:** When medical personnel are present the Concussion Consensus group 5 recommends the use of the SPORT CONCUSSION ASSESSMENT TOOL 5 for sideline assessment as one aspect of sideline evaluation. The group also recommends sideline video review as a helpful tool in the identification and evaluation of significant head impact events. For taekwondo competition is extremely helpful to the medical staff if the referees can provide video replay of the head impact event.

The group also recommended that baseline or pre-season neuropsychological testing **is not mandatory, and is not required for all athletes in the post injury phase.** If it is completed, it is recommended that a neuropsychologist is the best person to interpret the results.

In terms of **diagnostic tests** the group does not recommend routine imaging or blood tests for athletes with a diagnosis of concussion. At this point there are several tests being researched, but there is further investigation required before using these clinically. In some cases an athlete who has severe symptoms may have a CT scan completed in emergency. This test is not used to diagnose concussion rather it is used to look for other brain structural, or bony injuries to the head.

The group notes that the **child and adolescent** athletes have some differences in concussion when compared to adults.

A child age 5 to 12 may have symptoms for up to 4 weeks after concussion

Children and adolescents should not return to sport until they have successfully **returned to school**

To read the complete article:

“Consensus statement on concussion in sport-the 5<sup>th</sup> international conference on concussion in sport held in Berlin, October 2016” McCrory, P et. al. **British Journal of Sport medicine**; 2017;01-10, first published on April 28<sup>th</sup> 2017 as 10.1136/bjsports-2017-097699