

WT Online Technical Delegate Certification Course (LV2 and LV3) (Medical part)



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WT Medical Committee Chair
December 2, 2020



WT Medical Code

The WT Medical Code was adopted and implemented for the injury and illness surveillance system of Taekwondo athletes during the WT championships.



The latest update of the World **Taekwondo Medical Code** :

'Moscow Council Meeting on December 4th 2019'

General principles and fundamental rights of athletes

Human dignity

Physical and
psychological
well-being

The protection
of their health
and safety

Self-
determination

Rights to
privacy and
confidentiality

Roles and responsibilities of medical officials for medical service and anti-doping control at International Competitions



MC Chair



Chair of WT Medical Committee (MC Chair) shall hold **a Medical meeting** to review taekwondo medical code medical rules

OMD

MC chair shall check and approve the equipment at the venue and the credentials of **Official Medical Director** (OMD) for the event

MOM

Medical Operation Manager (MOM) shall provide OMD with administrative assistance and support

CMD

Commissioned Medical Doctor (CMD) is an official ringside doctor to evaluate and manage the injured athletes during the competition

Qualification for OMD



- ✓ Lead of Venue Medical Team appointed by LOC.
- ✓ Must speak English fluently.
- ✓ Must have competency in emergency medicine, trauma medicine and sports medicine.

Roles and responsibilities of OMD

- OMD directs venue medical service.
- Report to the MC chair of the WT (and/or TD if no MC Chair available)
- Filling out **WT medical suspension form** and **athlete injury form**
- Supervising the venue medical team for safe evaluation
- Performing concussion evaluation or significant head trauma
- Making a fair decision and management and neural jurisdictions
- Upon request, inspecting athlete's **taping, brace, mouthguard** and giving a direction to referees
- Must be available from 1 day before the event to meet with the WT MC chair and TD to check the medical equipment, facility and emergency action plan at the venue.
- Train venue medical staff, lead the venue medical team to provide venue medical service 2 days prior to the beginning of the event till the end of the competition.
- Educate and train venue medical team periodically before and during the competition under MC Chair's guidance make sure venue medical team fully aware of WT medical code.





Qualification for CMD

: WT MC Delegate Continental MC Chair, OMD, Certified WT Commissioned Doctors got approved by WT MC Chair

Roles and responsibilities of CMD

- Making a decision on “**fit-to-fight**”
- Performing **pre and post competition medical evaluation**
- Filling out **WT medical suspension form** and **athlete injury form**
- Inspecting athlete’s **taping, brace, mouthguard** and giving **a direction to referees**
- Advice to and Collaborate with the venue medical team for **safe evaluation**
 - Performing **concussion evaluation** or **significant head trauma**
- Making **a fair decision** and management and neural jurisdictions
- Requested to declare **any potential or actual conflict** of interest prior the competition



Qualification for TMD



Team Medical Staff

Including team doctor, team physiotherapist, team athletic trainer and team chiropractor roles and functions in **the national team** (MNA)

Roles and functions of the team doctor (TMD)

- To protect the **safety and healthy** of the team athletes
- To advice coaches stop the match or withdraw the athletes if in **medically dangerous situation**
- To disqualify the athlete for the athlete's MNA with any of **disqualifying conditions before the registration**
- Care for the team athletes: to **provide basic medical care** before, during and after the match
- Care **during the match** may be allowed only if CMD or central referee permits
- Reporting any injury of team athletes to MC Chair (or OMD) and following upon **the treatment and rehabilitation** of the injured athletes
- Assisting return-to-competition process for **medically suspended athletes**

The scope of care of the team doctor during the match is limited to the following



- 1** Brief (~30 seconds) Cryotherapy (ICE) and taping/wrapping on any joints with contusions, strain and sprain



- 2** Simple wound or minor laceration care (skin cut)



- 3** Management of bleeding



- 4** Reduction of the dislocated joint (finger, elbow, shoulder, jaw, etc.)



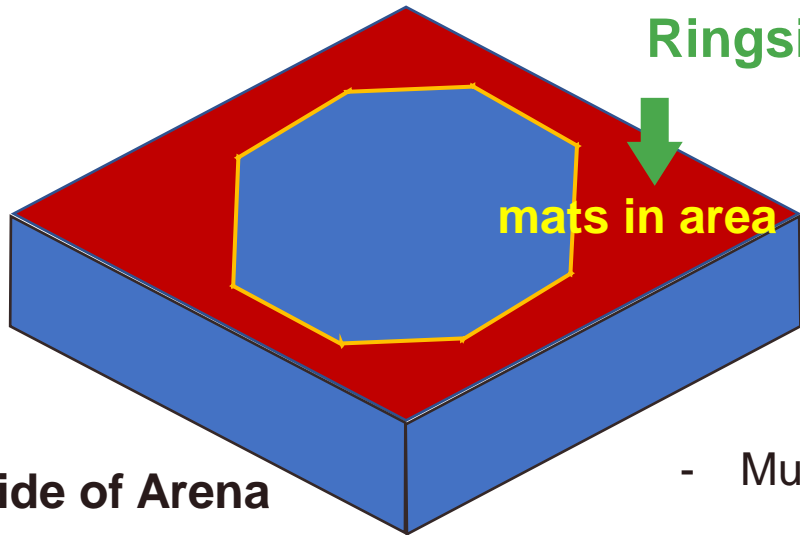
- 5** Providing assistance to CMD for medical treatment or emergency care as requested by CMD or central referee.

Requirements for Medical Service and Resources



Ringside Medical Station for Gyorugi (sparring)

Ringside Medical Station



outside of Arena

Venue Medical Room

- **One ringside medical station up to 3 mats** must have
- 1 Commissioned Medical Doctor
- 2 Paramedic (or EMT)
- 1 Registered Nurse (or any other medical professional)

- Must be equipped with **first aid and emergency supplies** for emergency and trauma equipment
- check **AED(Defibrillator), Oxygen Tank, Neck collar and Stretcher!**

- **At least 1 Venue Medical Doctor, 1 Registered Nurse and 1 Physiotherapist** (The number of each medical staff need doubled if there are more than 4 mats)



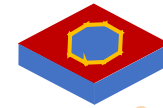
Requirements for Medical Service and Resources

Ringside Medical Station for Gyorugi (sparring)



(one) paramedic units

MUST BE AVAILABLE FOR



(1) To (3) competition courts

which consists of the minimum



(one) paramedic,



(two) EMTs

AND



(one) ambulances

with full ACLS AND ATLS equipment per each unit



(two) paramedic units

MUST BE AVAILABLE FOR



4

to

6

competition courts

which consists of the minimum



(two) paramedics,



(four) EMTs

AND



(two) ambulances

with full ACLS AND ATLS equipment per each unit

Requirements for Medical Service and Resources



Ringside Medical Station for Gyorugi (sparring)



(Ambulance)

- At least one ambulance **at the venue at all times**
- Must be reserved for true medical emergency



(Other transportation vehicle)

- At least **one vehicle** for non-emergency medical transportation



(Designated hospital)

- Must be located **within 20 minutes**
- Must be trauma centre with 24 access to emergency room
- Must have orthopaedic surgery, general surgery and neurosurgery, anaesthesiology and radiologist **available for 24/7**

G1(WT Recognised)

Ringside Medical Station for Gyorugi (sparring)



- LOC may discuss with MC Chair and CU Anti-Doping and Medical Chair in advance (at least one (1) month prior to the event) to modify the requirement for medical service and medical resources if it is extremely difficult to meet the requirement due to special situations

Venue medical service for any WT- promoted G1 event must include at least

- **Two (2) medical doctors** (one must be specialized in sports medicine, emergency, critical care or trauma medicine)
- **Two (2) other medical staff** (either registered nurse, athletic trainer, physiotherapist or sports chiropractor) and
- **At least one (1) volunteer medical assistant**

In addition, at least one (1) paramedic unit must be available at the venue

- **(1) paramedic, two (2) EMTs** and **one (1) ambulance** with full ACLS and ATLS equipment.
- **(1) non-ambulance vehicle** (mini-van or large sized car is recommended) with a driver available at the venue for non-emergency hospital transfer.

G2 (WT Recognised)

Ringside Medical Station for Gyorugi (sparring)



- LOC may discuss with MC Chair and CU Anti-Doping and Medical Chair in advance (at least one (1) month prior to the event) to modify the requirement for medical service and medical resources if it is extremely difficult to meet the requirement due to special situations

Venue medical service for any WT- promoted G2 event must include at least

- **Three (3) medical doctors** (two must be specialized in sports medicine, emergency, critical care or trauma medicine)
- **Three (3) other medical staff** (either registered nurse, athletic trainer, physiotherapist or sports chiropractor) and
- **At least One (1) volunteer medical assistant**

In addition, at least one (1) paramedic unit must be available at the venue

- **(1) paramedic, two (2) EMTs** and **one (1) ambulance** with full ACLS and ATLS equipment.
- **(1) non-ambulance vehicle** (mini-van or large sized car is recommended) with a driver available at the venue for non-emergency hospital transfer.



Requirement for Ambulance

For Grand-Prix Series, World Para-Taekwondo Championships, World Cup team championships, World Cadet Championships, and Grand Slam Series championships

>> At least two (2) ambulances are required at the venue during competition period.

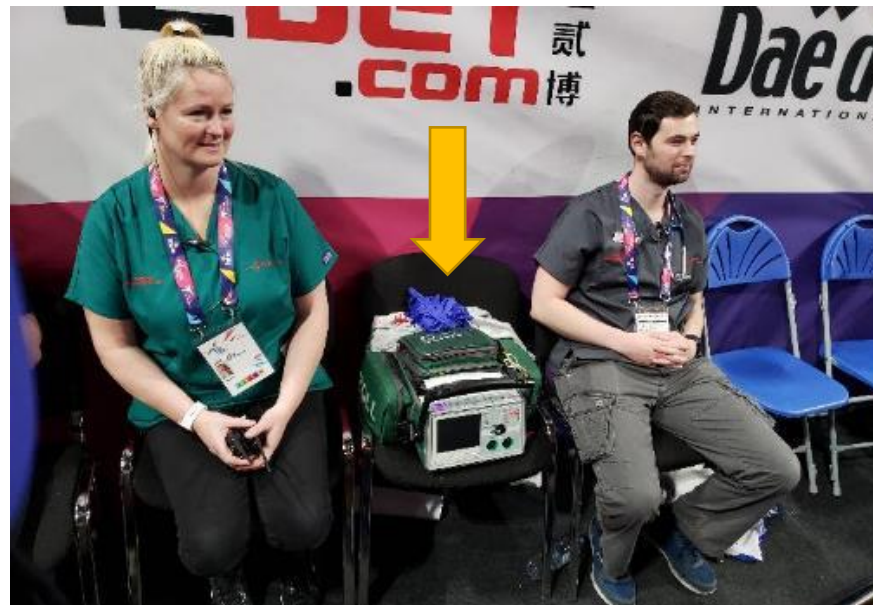
For World Championships and World Junior Championships

>> At least three (3) ambulances are required during competition period.

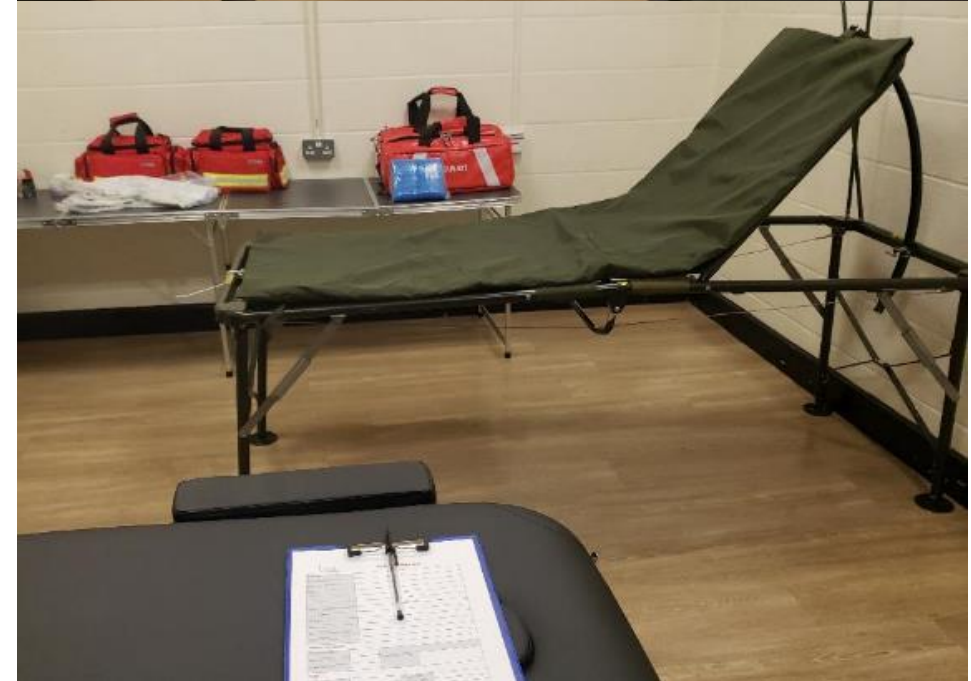
(two (2) ambulances at the venue at all times and one (1) standby ambulance within 10 minutes to the venue)



2019 Manchester world taekwondo championships – RINGSIDE MEDICAL STATION



Venue medical room



Requirements for Medical Service and Resources

<For World Championships,
World Junior Championships>



(nurse)



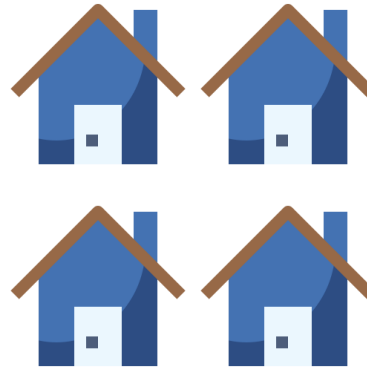
(paramedic)



(ambulance)

must standby **at the athlete village**
at all times with ACLS equipment

<Medical coverage
for **athlete village**>



: At least **one medical staff**
must **standby or available**
as an on-call basis after
competition hours.

- Medical Doctor must have on-call for
after hour service within **10 minutes**
after call



Requirements for Medical Service and Resources

Ringside Medical Station for Poomsae



(one) medical doctor,



(two) paramedic/EMT,



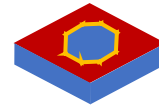
(two) paramedic volunteers

FOR



(one) medical Station up

TO

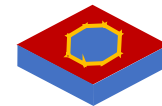


(nine) competition courts



(one) paramedic unit

MUST BE AVAILABLE FOR



(one) to (nine) competition

courts

which consists of the minimum



(one) paramedic,



(two) Emergency Technicians

(EMT)

AND



(one) ambulance

with full ACLS AND ATLS equipment



Requirements for Medical Service and Resources

Ringside Medical Station for Poomsae



(two) medical doctors,



(three) paramedics/EMT

AND



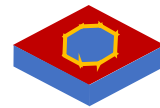
(three) stretcher bearers

FOR



(two) Medical Stations

FOR

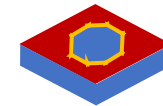


(ten) to(eighteen) competition courts



(two) paramedic units

MUST BE AVAILABLE FOR



(ten) to(eighteen) competition courts

courts **which consists of the minimum**



(two) paramedics,



(four) EMTs

AND



(two) ambulances

with full ACLS AND ATLS equipment per each unit

Requirements for Medical Service and Resources

Criteria for “Stop-the Competition by MC Chair” during the competition period

1



No standby
ambulance at
venue at any
moment

2



Lack of essential
emergency **medical**
equipment or necessary
medications listed on WT
medical code

3



Lack of **medical staff**
per minimal requirement
during the competition
both at ringside medical
station and venue
medical room

4



Significant deficit of
professionalism or
serious ethical issues
against WT medical code,
which may jeopardize the
athlete safety

Periodic Health Evaluation and Medical Disqualification

Mandatory Periodic Health evaluation (or Annual Medical Certificate)

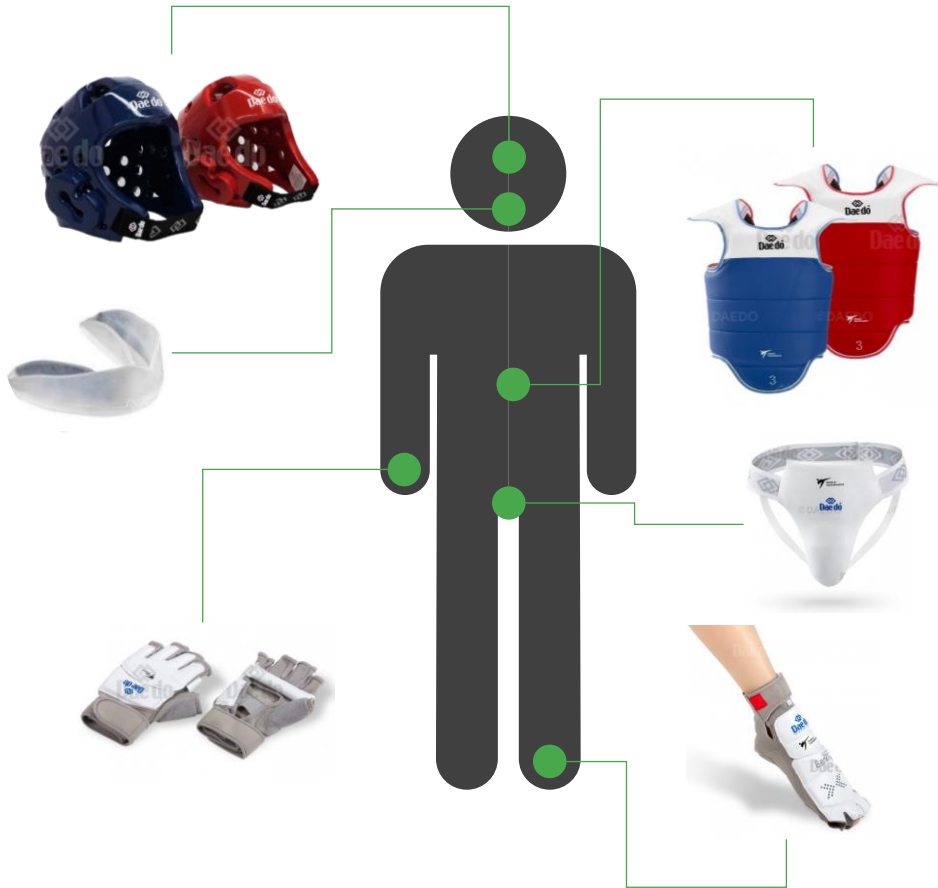


- **Failure to disclose** any significant medical history or active medical problem of the athlete in the annual medical certificate or deficiency in mandatory ***blood test, immunization record or cardiac testing*** (electrocardiogram or exercise stress test) shall result not only in the disqualification of the athlete but also the sanction or disciplinary action against team medical staff and MNA.

Disqualification Criteria due to medical reason(s)



1 Inadequate safety protection gear and equipment



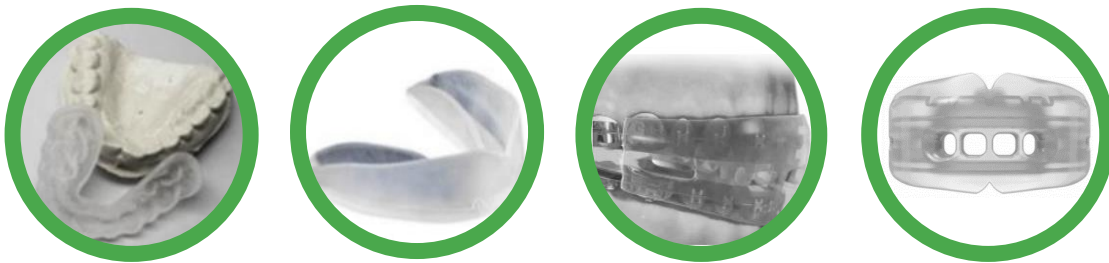
(1) **Protection gear** has any of following conditions which can compromise the protection function of the protection gear and equipment

- i) Inadequate body part coverage by the gear
- ii) Inappropriate size for the athlete
- iii) Significant defect of the shape or material

Disqualification Criteria due to medical reason(s)



(2) **Do not have appropriate mouthguard per WT mouthguard rules** at the inspection and at any time during the match, or fail to wear appropriate mouthguard



(3) **Piercing, earing or any hard material in the face or any body part** at the inspection or during the match despite of receiving a warning by an inspection referee, center referee or WT commissioned doctor



Disqualification Criteria due to medical reason(s)



2 Competition Medical Commission led by MC Chair may either stop the match and/or disqualify an athlete from the competitions by jurisdiction.

- (1) Any signs or symptoms suggesting **concussion or post-concussion syndrome**
- (2) Any signs or symptoms of **neurologic deficit** (such as prolonged and significant lethargy / weakness / shakiness, nausea, recurrent vomiting, altered mental status, impaired speech or eye tracking, conversion, or seizure)
- (3) Any signs or symptoms suggesting **acute cardiac or pulmonary issues** (e.g. chest pain, chest tightness/discomfort, shortness of breath, tachypnea respiratory failure, wheezing, persistent cough, or low oxygen saturation)
- (4) Any signs or symptoms suggesting **significant active infection** (e.g. cellulitis, abscess, pneumonia, sepsis)

Disqualification Criteria due to medical reason(s)

2 Competition Medical Commission led by MC Chair may either stop the match and/or disqualify an athlete from the competitions by jurisdiction.

- (5) Any signs or symptoms suggesting **serious organ damage** (e.g. rupture or laceration of the liver, spleen, kidney, eye or testicles)
- (6) **Unstable vital signs** (e.g. low blood pressure or uncontrolled blood pressure, desaturation, prolonged tachypnea or tachycardia in resting status)
- (7) Acute complete or near-complete rupture of any ligament, muscle, or **tendon that affects safety and functional performance of the athlete.**
- (8) Any confirmed or **possible fracture** of **long bone or other fractures** with obvious deformity and severe uncontrolled pain

Disqualification Criteria due to medical reason(s)

2 Competition Medical Commission led by MC Chair may either stop the match and/or disqualify an athlete from the competitions by jurisdiction.

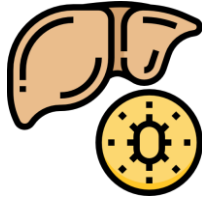
- (9) Any **irreducible dislocation** or **dislocation with neurovascular** compromise
- (10) Any **deep skin laceration wound** with severe bleeding that requires multiple stitches
- (11) Any other **medical emergency** or **trauma** that requires prompt medical care
- (12) Any conditions that can **significantly impair** the athlete's ability to walk, jump, bend, block, avoid or weight bear (for Para Taekwondo, this must be considered case-by-case according to the athletes' category and type of disability)

✓ **Disqualifying conditions in the medical certificate**

Any athlete with any of the following conditions in the medical certificate shall not be allowed to compete



Severe **chronic infections** or **blood dyscrasias** (sickle cell disease)



History of **Hepatitis B**, **Hepatitis C** or **HIV infection**



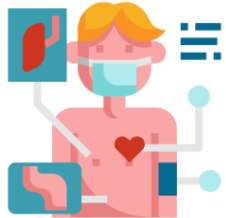
Any **active infection** that can be contagious without completion of proper treatment



Refractive and intraocular surgery, cataract, retinal detachment



Exposed / open / infected **skin lesions**



Significant congenital or acquired **cardiovascular, pulmonary, neurologic or musculoskeletal** deficiencies or abnormalities



Active or persistent **concussion** symptoms



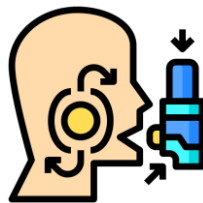
Significant psychiatric disorder or substance **drug abuse**



Significant congenital or acquired **intracranial bleeding** or mass lesion



Any **seizure activity** within the last 3 years



Uncontrolled **asthma** or exercise-induced asthma



Unhealed **fracture** of the long bone



Uncontrolled **diabetes mellitus**, uncontrolled **hypertension** or uncontrolled **thyroid disease**



Pregnancy



Types and protocols for Medical Emergency in Taekwondo Competitions

Medical Emergency (Emergent hospital transfer is required)

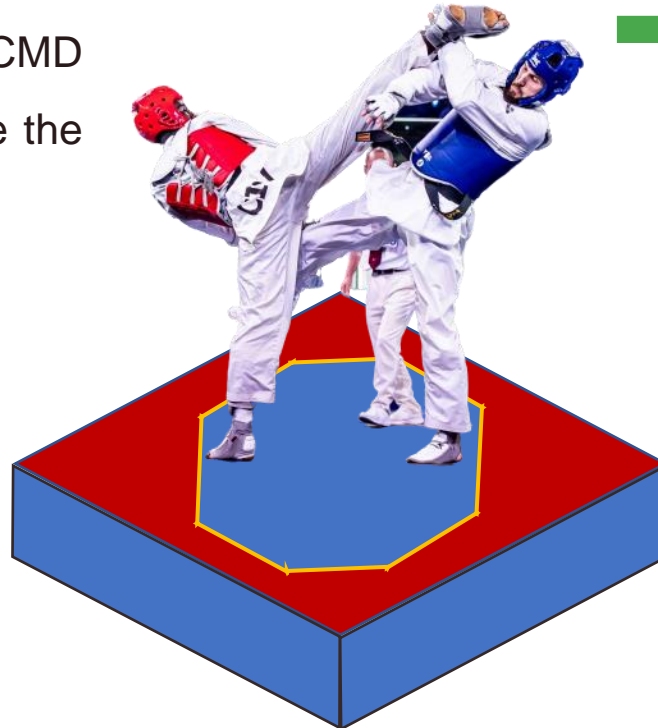
- Cardiac Arrest (sudden collapse or syncope)
- Blunt trauma to chest / abdomen with unstable vital signs or severe symptoms (collapse, respiratory distress, severe pain)
- Massive uncontrolled bleeding
- Severe head trauma
- Cervical Spine Injury with potential spinal cord injury
- Seizure or convulsion
- Open Fracture of long bone
- Dislocation of the joint or dislocated fracture with neurovascular compromise
- Severe eye (ocular) injury (Rupture / Injury with vision changes)

Types and protocols for Medical Emergency in Taekwondo Competitions

Management protocol for loss of consciousness, head trauma or collapse in competition

➡ Referee immediately call CMD and start counting or close the match.

➡ CMD immediately comes to the mat; the counting of one (1) minute by centre referee begins as soon as the CMD arrives in the mat.

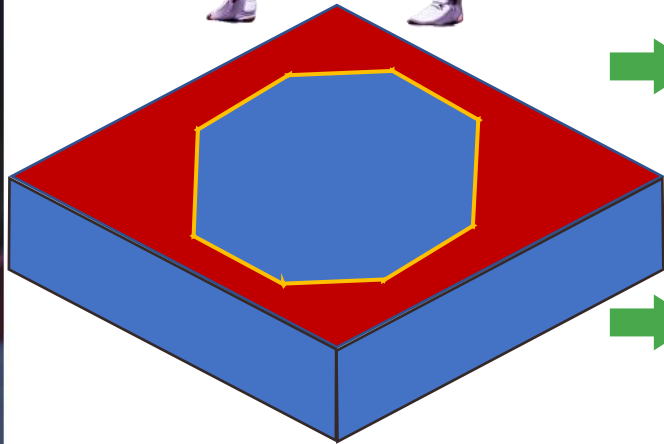


➡ The injured must remain lying down on the floor and care shall be provided in this position and do not move the head and neck of the athlete.

➡ The CMD quickly examines the athlete and provides the injured with emergency medical care.



Types and protocols for Medical Emergency in Taekwondo Competitions



- ➔ **Team doctor** may assist the CMD per CMD or Centre referee's permission. (However, the team doctor must comply to the CMD's direction for the care.)
- ➔ The CMD **removes** the mouthguard and the head guard with caution with protecting the neck.
- ➔ The CMD **performs a neurological and cardiopulmonary evaluation** quickly; check Glasgow-coma scale score, breathing status, and carotid pulse/rhythm.
- ➔ **Take off the Hogu** (body protector) by cervical spine protocol. put the cervical collar (always keep in mind cervical spine protection) and keep the alignment of head and neck

Types and protocols for Medical Emergency in Taekwondo Competitions

1 Start with chest compression if no pulse or very weak pulse.

2 Manual breathing (oropharyngeal airway with pocket mask or bag-valve mask) if no spontaneous breathing



3 Using the **automatic external defibrillator** (AED) if no pulse.

4 Activate emergency medical service with assist of EMT / Paramedic / RN.



➡ If necessary, CMD **MUST start CPR** (Cardiopulmonary resuscitation) per BLS (basic life support) or ALS (advanced life support) protocol.

➡ **For suspected cervical spine injury:** cervical spine immobilization protocol (ATLS) by placing rigid C-Collar on the neck and transporting the patient to stretcher with assist of 4 people.

Types and protocols for Medical Emergency in Taekwondo Competitions

Stable conditions after brief loss of consciousness

(1) loss of consciousness is
less than 60 seconds
(recovery of the consciousness)



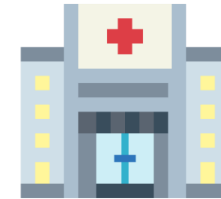
- (2) the injured has stable vital sign without serious trauma
- Venue medical doctor at the medical room shall resume the care for the injured athlete.
 - Venue Doctor MUST closely monitor the injured athlete by performing serial examination of the neurologic state and cardiopulmonary status every 15 minutes for the first hour, then once every hour up to 2-3 hours.



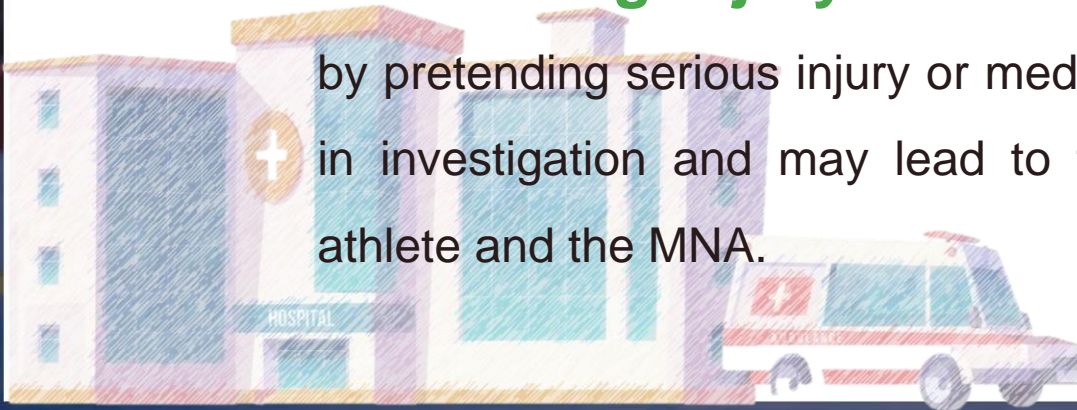
Types and protocols for Medical Emergency in Taekwondo Competitions

Emergent hospital transfer

: The injured that is being compromised or become deteriorated must be transferred to the designated hospital immediately by an ambulance accompanied by a paramedic and full resuscitation equipment.



Pretending injury: A fake action intended to affect the result of the competition by pretending serious injury or medical emergency during the competition shall result in investigation and may lead to the sanction and disciplinary action against the athlete and the MNA.



Types and protocols for Medical Emergency in Taekwondo Competitions



Mandatory suspension after significant head trauma or concussion

- Any **significant head trauma** carries mandatory suspension for any competition during the suspension period.



- This **mandatory medical suspension period** cannot be shortened in any circumstances once the suspension is given.

➤ Suspension period:

Senior athlete: 30 days

Junior athlete: 40 days

Cadet athlete: 50 days

➤ 2nd concussion in last 90 days: 90-day suspension

➤ 3rd concussion in last 180 days: 180-day suspension

Types and protocols for Medical Emergency in Taekwondo Competitions

The decision on the suspension of the athlete in competition must be made based the on one of the followings

(1) Comprehensive **neurological examination** and neurocognitive testing (SCAT 5 or other validated concussion-assessment tools permitted by MC Chair)

(3) **Failure to show full recovery** within one (1) minute of medical evaluation on the mat after the centre referee calls a doctor for possible concussion or serious head trauma.



(2) Any **knockout** (loss of consciousness or altered mental status or inability to make any meaningful, stable and voluntary movement as a result of **a direct head trauma**) at least for ten (10) seconds or by count ten (10) by centre referee (referee-stop-contest) shall be regarded as concussion.

Types and protocols for Medical Emergency in Taekwondo Competitions



Administrative procedures for the mandatory suspension due to concussion and serious head trauma

(1) OMD(CMD) Must notify the athlete and MNA official of the diagnosis of concussion/significant head trauma and mandatory medical suspension rules in person

(2) A Certificate of medical suspension must be written by OMD (or CMD) and report the incidence to MC Chair, TD and WT Sport Department as soon as the diagnosis of concussion or moderate to severe traumatic head injury is made.

(3) Any athlete with concussion or significant head trauma are not allowed to compete until mandatory suspension is completed, and **cannot compete the next match even if the athlete wins the match by opponent's illegal attack on the head of the athlete.**

(4) **Team Medical Staff(or Head Coach)** Must report the incidence to MC Chair and WT Sport and strictly follow the return-to-competition procedures for concussion.



TD must collect this form

WT INJURY SURVEILLANCE LOG SHEET



Date: (____ / ____ / 20____) / Competition Name: _____

(Page: ____)

Medical Staff (name / e-mail): _____

<p>Athlete No.(e.g. KOR-12345): _____</p> <p>Gender: <input type="checkbox"/> Male / <input type="checkbox"/> Female</p> <p>Weight division: + / - _____ kg</p> <p>Injured during: <input type="checkbox"/> Game No.: _____ (R1 / R2 / R3 / SD) <input type="checkbox"/> Training</p> <p>Grade of Injury: <input type="checkbox"/> 1. Negligible <input type="checkbox"/> 2. Mild <input type="checkbox"/> 3. Moderate <input type="checkbox"/> 4. Severe <input type="checkbox"/> 5. Catastrophic</p>	<p>Side / Location of Injury:</p> <p>[Left / Right / Bilateral] [Anterior/ Posterior/ Medial/ Lateral/ Dorsal/ Ventral / Upper / Lower]</p> <p><input type="checkbox"/> Head: brain, scalp, eye, nose, ear, lip, tooth, jaw, cheekbone</p> <p><input type="checkbox"/> Neck : larynx, carotid artery</p> <p><input type="checkbox"/> Trunk: thorax, ribs, abdomen, pelvis</p> <p><input type="checkbox"/> Upper limb: shoulder, arm, elbow, forearm, wrist, hand, finger, thumb</p> <p><input type="checkbox"/> Lower limb: hip, groin, thigh, knee, low leg, Achilles tendon, ankle, foot, toe</p> <p><input type="checkbox"/> Spine: cervical, thoracic, lumbar</p> <p><input type="checkbox"/> Genitalia</p>	<p>Type of Injury:</p> <p><input type="checkbox"/> Contusion <input type="checkbox"/> Laceration <input type="checkbox"/> Fracture <input type="checkbox"/> Stress fracture <input type="checkbox"/> Other bone injury <input type="checkbox"/> Concussion <input type="checkbox"/> Dislocation <input type="checkbox"/> Bursitis <input type="checkbox"/> Lesion of meniscus <input type="checkbox"/> Impingement <input type="checkbox"/> Ligament sprain <input type="checkbox"/> Ligament rupture <input type="checkbox"/> Muscle strain <input type="checkbox"/> Tendon rupture <input type="checkbox"/> Tendinosis <input type="checkbox"/> Fasciitis <input type="checkbox"/> Muscle cramps <input type="checkbox"/> Dental injury <input type="checkbox"/> Spinal cord injury <input type="checkbox"/> Other:</p>	<p>Cause of Injury:</p> <p><input type="checkbox"/> Contact: another athlete <input type="checkbox"/> Contact: moving object (training) <input type="checkbox"/> Contact: stagnant object (training) <input type="checkbox"/> Non-contact trauma <input type="checkbox"/> Overuse (gradual onset) <input type="checkbox"/> Overuse (sudden onset) <input type="checkbox"/> Re-injury <input type="checkbox"/> Violation of rules <input type="checkbox"/> Field of play conditions <input type="checkbox"/> Equipment failure <input type="checkbox"/> Other:</p> <p>Specific cause of Injury:</p> <p><input type="checkbox"/> Attack <input type="checkbox"/> Be attacked <input type="checkbox"/> Supporting leg (If a leg injury) <input type="checkbox"/> Unsupported-kicking leg (If a leg injury)</p>	<p>Management:</p> <p><input type="checkbox"/> Match: (continue/ Stop) <input type="checkbox"/> None (observation) <input type="checkbox"/> Transfer (medical room /Hospital)</p> <p>Treatment:</p> <p><input type="checkbox"/> C-spine Immobilization <input type="checkbox"/> Resuscitation (ACLS) <input type="checkbox"/> Use of Oxygen <input type="checkbox"/> ICE/Cryotherapy <input type="checkbox"/> Stretching/Massage <input type="checkbox"/> Support (band/splint) <input type="checkbox"/> Bleeding control <input type="checkbox"/> Seizure/conversion control <input type="checkbox"/> Others:</p>
<p>Athlete No.(e.g. KOR-12345): _____</p> <p>Gender: <input type="checkbox"/> Male / <input type="checkbox"/> Female</p> <p>Weight division: + / - _____ kg</p> <p>Injured during: <input type="checkbox"/> Game No.: _____ (R1 / R2 / R3 / SD) <input type="checkbox"/> Training</p> <p>Grade of Injury: <input type="checkbox"/> 1. Negligible <input type="checkbox"/> 2. Mild <input type="checkbox"/> 3. Moderate <input type="checkbox"/> 4. Severe <input type="checkbox"/> 5. Catastrophic</p>	<p>Side / Location of Injury:</p> <p>[Left / Right / Bilateral] [Anterior/ Posterior/ Medial/ Lateral/ Dorsal/ Ventral / Upper / Lower]</p> <p><input type="checkbox"/> Head: brain, scalp, eye, nose, ear, lip, tooth, jaw, cheekbone</p> <p><input type="checkbox"/> Neck : larynx, carotid artery</p> <p><input type="checkbox"/> Trunk: thorax, ribs, abdomen, pelvis</p> <p><input type="checkbox"/> Upper limb: shoulder, arm, elbow, forearm, wrist, hand, finger, thumb</p> <p><input type="checkbox"/> Lower limb: hip, groin, thigh, knee, low leg, Achilles tendon, ankle, foot, toe</p> <p><input type="checkbox"/> Spine: cervical, thoracic, lumbar</p> <p><input type="checkbox"/> Genitalia</p>	<p>Type of Injury:</p> <p><input type="checkbox"/> Contusion <input type="checkbox"/> Laceration <input type="checkbox"/> Fracture <input type="checkbox"/> Stress fracture <input type="checkbox"/> Other bone injury <input type="checkbox"/> Concussion <input type="checkbox"/> Dislocation <input type="checkbox"/> Bursitis <input type="checkbox"/> Lesion of meniscus <input type="checkbox"/> Impingement <input type="checkbox"/> Ligament sprain <input type="checkbox"/> Ligament rupture <input type="checkbox"/> Muscle strain <input type="checkbox"/> Tendon rupture <input type="checkbox"/> Tendinosis <input type="checkbox"/> Fasciitis <input type="checkbox"/> Muscle cramps <input type="checkbox"/> Dental injury <input type="checkbox"/> Spinal cord injury <input type="checkbox"/> Other:</p>	<p>Cause of Injury:</p> <p><input type="checkbox"/> Contact: another athlete <input type="checkbox"/> Contact: moving object (training) <input type="checkbox"/> Contact: stagnant object (training) <input type="checkbox"/> Non-contact trauma <input type="checkbox"/> Overuse (gradual onset) <input type="checkbox"/> Overuse (sudden onset) <input type="checkbox"/> Re-injury <input type="checkbox"/> Violation of rules <input type="checkbox"/> Field of play conditions <input type="checkbox"/> Equipment failure <input type="checkbox"/> Other:</p> <p>Specific cause of Injury:</p> <p><input type="checkbox"/> Attack <input type="checkbox"/> Be attacked <input type="checkbox"/> Supporting leg (If a leg injury) <input type="checkbox"/> Unsupported-kicking leg (If a leg injury)</p>	<p>Management:</p> <p><input type="checkbox"/> Match: (continue/ Stop) <input type="checkbox"/> None (observation) <input type="checkbox"/> Transfer (medical room /Hospital)</p> <p>Treatment:</p> <p><input type="checkbox"/> C-spine Immobilization <input type="checkbox"/> Resuscitation (ACLS) <input type="checkbox"/> Use of Oxygen <input type="checkbox"/> ICE/Cryotherapy <input type="checkbox"/> Stretching/Massage <input type="checkbox"/> Support (band/splint) <input type="checkbox"/> Bleeding control <input type="checkbox"/> Seizure/conversion control <input type="checkbox"/> Others:</p>

• Please submit this form to WT Medical and Anti-Doping Committee Chairman (Dr. Dae Hyoun Jeong, Email: dhjeong15@gmail.com) and WT Science & Research Committee Chairman (Dr. Sae Yong Lee, Email: syleel@yonsei.ac.kr), WT Sports Department (sport@worldtaekwondo.org) at the end of the competition on each day.

Appendix 1. Examples of How to code acute Injuries

1. A 74kg male athlete sustained a right ankle sprain in contact with another athlete during 16 round competition. Athlete received icing/cryotherapy during the competition. Estimated duration of treatment = 15 days.

Date: (May / 15 / 2019) Competition Name: Manchester 2019 WTC

Medical Staff (name / e-mail): David / david@worldtaekwondo.org

Athlete No.(e.g. KOR-12345): <u>KOR-12345</u> Gender: <input checked="" type="checkbox"/> Male / <input type="checkbox"/> Female Weight division: + / - <u>74</u> kg Injured during: <input type="checkbox"/> Game No.: <u>101</u> <input checked="" type="checkbox"/> Training (R1 / R2 / R3 / SD) Grade of Injury: <input type="checkbox"/> 1. Negligible <input type="checkbox"/> 2. Mild <input checked="" type="checkbox"/> 3. Moderate <input type="checkbox"/> 4. Severe <input type="checkbox"/> 5. Catastrophic	Side / Location of Injury: [Left / Right / Bilateral] [Anterior / Posterior / Medial / Lateral / Dorsal / Ventral / Upper / Lower] <input type="checkbox"/> Head: brain, scalp, eye, nose, ear, lip, tooth, jaw, cheekbone <input type="checkbox"/> Neck: larynx, carotid artery <input type="checkbox"/> Trunk: thorax, ribs, abdomen, pelvis <input type="checkbox"/> Upper limb: shoulder, arm, elbow, forearm, wrist, hand, finger, thumb <input type="checkbox"/> Lower limb: hip, groin, thigh, knee, low leg, Achilles tendon, ankle, foot, toe <input type="checkbox"/> Spine: cervical, thoracic, lumbar <input type="checkbox"/> Genitalia	Type of Injury: <input type="checkbox"/> Contusion <input type="checkbox"/> Laceration <input type="checkbox"/> Fracture <input type="checkbox"/> Stress fracture <input type="checkbox"/> Other bone injury <input type="checkbox"/> Concussion <input type="checkbox"/> Dislocation <input type="checkbox"/> Bursitis <input type="checkbox"/> Lesion of meniscus <input type="checkbox"/> Impingement <input checked="" type="checkbox"/> Ligament sprain <input type="checkbox"/> Ligament rupture <input type="checkbox"/> Muscle strain <input type="checkbox"/> Tendon rupture <input type="checkbox"/> Tendinosis <input type="checkbox"/> Fasciitis <input type="checkbox"/> Muscle cramps <input type="checkbox"/> Dental injury <input type="checkbox"/> Spinal cord injury <input type="checkbox"/> Other:	Cause of Injury: <input checked="" type="checkbox"/> Contact: another athlete <input type="checkbox"/> Contact: moving object (training) <input type="checkbox"/> Contact: stagnant object (training) <input type="checkbox"/> Non-contact trauma <input type="checkbox"/> Overuse (gradual onset) <input type="checkbox"/> Overuse (sudden onset) <input type="checkbox"/> Re-injury <input type="checkbox"/> Violation of rules <input type="checkbox"/> Field of play conditions <input type="checkbox"/> Equipment failure <input type="checkbox"/> Other: Specific cause of Injury: <input checked="" type="checkbox"/> Attack <input type="checkbox"/> Be attacked <input type="checkbox"/> Supporting leg (If a leg injury) <input type="checkbox"/> Unsupported-kicking leg (If a leg injury)	Management: <input type="checkbox"/> Match: (continue/ Stop) <input type="checkbox"/> None (observation) <input type="checkbox"/> Transfer (medical room /Hospital) Treatment: <input type="checkbox"/> C-spine Immobilization <input type="checkbox"/> Resuscitation (ACLS) <input type="checkbox"/> Use of Oxygen <input checked="" type="checkbox"/> ICE/Cryotherapy <input type="checkbox"/> Stretching/Massage <input type="checkbox"/> Support (band/splint) <input type="checkbox"/> Bleeding control <input type="checkbox"/> Seizure/conversion control <input type="checkbox"/> Others:
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2. A 57kg female athlete developed a left shoulder impingement during training and sought medical attention; the condition did not prevent the athlete from taking full part in training or competition even though it caused the player some pain.

Date: (May / 15 / 2019) Competition Name: Manchester 2019 WTC

Medical Staff (name / e-mail): David / david@worldtaekwondo.org

Athlete No.(e.g. KOR-12345): <u>KOR-56789</u> Gender: <input type="checkbox"/> Male / <input checked="" type="checkbox"/> Female Weight division: + / - <u>57</u> kg Injured during: <input type="checkbox"/> Game No.: _____ <input checked="" type="checkbox"/> Training (R1 / R2 / R3 / SD) Grade of Injury: <input checked="" type="checkbox"/> 1. Negligible <input type="checkbox"/> 2. Mild <input type="checkbox"/> 3. Moderate <input type="checkbox"/> 4. Severe <input type="checkbox"/> 5. Catastrophic	Side / Location of Injury: [Left / Right / Bilateral] [Anterior / Posterior / Medial / Lateral / Dorsal / Ventral / Upper / Lower] <input type="checkbox"/> Head: brain, scalp, eye, nose, ear, lip, tooth, jaw, cheekbone <input type="checkbox"/> Neck: larynx, carotid artery <input type="checkbox"/> Trunk: thorax, ribs, abdomen, pelvis <input type="checkbox"/> Upper limb: shoulder, arm, elbow, forearm, wrist, hand, finger, thumb <input type="checkbox"/> Lower limb: hip, groin, thigh, knee, low leg, Achilles tendon, ankle, foot, toe <input type="checkbox"/> Spine: cervical, thoracic, lumbar <input type="checkbox"/> Genitalia	Type of Injury: <input type="checkbox"/> Contusion <input type="checkbox"/> Laceration <input type="checkbox"/> Fracture <input type="checkbox"/> Stress fracture <input type="checkbox"/> Other bone injury <input type="checkbox"/> Concussion <input type="checkbox"/> Dislocation <input type="checkbox"/> Bursitis <input type="checkbox"/> Lesion of meniscus <input checked="" type="checkbox"/> Impingement <input type="checkbox"/> Ligament sprain <input type="checkbox"/> Ligament rupture <input type="checkbox"/> Muscle strain <input type="checkbox"/> Tendon rupture <input type="checkbox"/> Tendinosis <input type="checkbox"/> Fasciitis <input type="checkbox"/> Muscle cramps <input type="checkbox"/> Dental injury <input type="checkbox"/> Spinal cord injury <input type="checkbox"/> Other:	Cause of Injury: <input type="checkbox"/> Contact: another athlete <input type="checkbox"/> Contact: moving object (training) <input type="checkbox"/> Contact: stagnant object (training) <input type="checkbox"/> Non-contact trauma <input type="checkbox"/> Overuse (gradual onset) <input type="checkbox"/> Overuse (sudden onset) <input checked="" type="checkbox"/> Re-injury <input type="checkbox"/> Violation of rules <input type="checkbox"/> Field of play conditions <input type="checkbox"/> Equipment failure <input type="checkbox"/> Other: Specific cause of Injury: <input type="checkbox"/> Attack <input type="checkbox"/> Be attacked <input type="checkbox"/> Supporting leg (If a leg injury) <input type="checkbox"/> Unsupported-kicking leg (If a leg injury)	Management: <input type="checkbox"/> Match: (continue/ Stop) <input type="checkbox"/> None (observation) <input type="checkbox"/> Transfer (medical room /Hospital) Treatment: <input type="checkbox"/> C-spine Immobilization <input type="checkbox"/> Resuscitation (ACLS) <input type="checkbox"/> Use of Oxygen <input checked="" type="checkbox"/> ICE/Cryotherapy <input checked="" type="checkbox"/> Stretching/Massage <input type="checkbox"/> Support (band/splint) <input type="checkbox"/> Bleeding control <input type="checkbox"/> Seizure/conversion control <input type="checkbox"/> Others:
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OFFICIAL ATHELTE INJURY (ILLNESS) REPORT

- This is an official injury (illness) report issued for an athlete who wish to obtain an official medical report after getting any significant injury during the competition period
- This form must be filled out and certified by either WT Medical Chair, WT Commissioned Doctor, Official Medical Director (OMD) or Consultant at OC designated hospital only.

NAME OF THE COMPETITION (City/Country)	
DATE OF REPORTING (DD/MM/YY)	
NAME OF NATIONAL ASSOCIATION	
ATHELTE NAME (Family name in capital letter)	
GENDER	<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
WT GAL Number	
Date of Birth	(Day/ Month/ Year)
Weight Division	KG
Date /Place of the Injury/Illness	
Explanation of the Injury/Illness (how the injury happened and what was the consequence of the injury)	
Diagnosis of the injury/Illness	
- Significant symptoms and physical exam findings - Any imaging study (x-ray, ultrasound, CT, MRI, etc)	
The management of the injury (treatment for the injured athletes)	
Recommendations	
Medical Examiner (Name / Title/ Signature/ Email address)	
Injured Athlete (Name / Signature / Email address)	
Accompanying personnel for the injured athlete (head of team or coach or team medical staff) (Name / Signature /Email)	

7. 2018 Athlete injury report during competition period

During the competition period, MNA may request OMD or venue medical staff to write the diagnosis/management/treatment of the injured or ill athlete for their record to bring it back to their country so that medical doctors in their home country understand what happened to the athlete.

This form can be used for medical certificate for the athlete who obtained injury or illness during the competition period, and this form can be filled out by medical doctor who was involved in evaluation and management of the injured or ill athlete, per MNA personnel's request. (Either WT Medical Chair, WT Commissioned Doctor, Official Medical Director (OMD) or Consultant at OC designated hospital only.)

*This is for record (OMD/Athlete)
TD does not need to collect this form*



TD must collect this form

SCAT5

SPORT CONCUSSION ASSESSMENT TOOL – 5TH EDITION

DEVELOPED BY THE CONCUSSION IN SPORT GROUP
FOR USE BY MEDICAL PROFESSIONALS ONLY

supported by



Patient details

Name: _____

DOB: _____

Address: _____

ID number: _____

Examiner: _____

Date of Injury: _____ Time: _____

WHAT IS THE SCAT5?

The SCAT5 is a standardized tool for evaluating concussions designed for use by physicians and licensed healthcare professionals¹. The SCAT5 cannot be performed correctly in less than 10 minutes.

If you are not a physician or licensed healthcare professional, please use the Concussion Recognition Tool 5 (CRT5). The SCAT5 is to be used for evaluating athletes aged 13 years and older. For children aged 12 years or younger, please use the Child SCAT5.

Preseason SCAT5 baseline testing can be useful for interpreting post-injury test scores, but is not required for that purpose. Detailed instructions for use of the SCAT5 are provided on page 7. Please read through these instructions carefully before testing the athlete. Brief verbal instructions for each test are given in italics. The only equipment required for the tester is a watch or timer.

This tool may be freely copied in its current form for distribution to individuals, teams, groups and organizations. It should not be altered in any way, re-branded or sold for commercial gain. Any revision, translation or reproduction in a digital form requires specific approval by the Concussion in Sport Group.

Recognise and Remove

A head impact by either a direct blow or indirect transmission of force can be associated with a serious and potentially fatal brain injury. If there are significant concerns, including any of the red flags listed in Box 1, then activation of emergency procedures and urgent transport to the nearest hospital should be arranged.

Key points

- Any athlete with suspected concussion should be REMOVED FROM PLAY, medically assessed and monitored for deterioration. No athlete diagnosed with concussion should be returned to play on the day of injury.
- If an athlete is suspected of having a concussion and medical personnel are not immediately available, the athlete should be referred to a medical facility for urgent assessment.
- Athletes with suspected concussion should not drink alcohol, use recreational drugs and should not drive a motor vehicle until cleared to do so by a medical professional.
- Concussion signs and symptoms evolve over time and it is important to consider repeat evaluation in the assessment of concussion.
- The diagnosis of a concussion is a clinical judgment, made by a medical professional. The SCAT5 should NOT be used by itself to make, or exclude, the diagnosis of concussion. An athlete may have a concussion even if their SCAT5 is "normal".

Remember:

- The basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Do not attempt to move the athlete (other than that required for airway management) unless trained to do so.
- Assessment for a spinal cord injury is a critical part of the initial on-field assessment.
- Do not remove a helmet or any other equipment unless trained to do so safely.

1

IMMEDIATE OR ON-FIELD ASSESSMENT

The following elements should be assessed for all athletes who are suspected of having a concussion prior to proceeding to the neurocognitive assessment and ideally should be done on-field after the first first aid / emergency care priorities are completed.

If any of the "Red Flags" or observable signs are noted after a direct or indirect blow to the head, the athlete should be immediately and safely removed from participation and evaluated by a physician or licensed healthcare professional.

Consideration of transportation to a medical facility should be at the discretion of the physician or licensed healthcare professional.

The GCS is important as a standard measure for all patients and can be done serially if necessary in the event of deterioration in conscious state. The Maddocks questions and cervical spine exam are critical steps of the immediate assessment; however, these do not need to be done serially.

STEP 1: RED FLAGS

RED FLAGS:

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

STEP 2: OBSERVABLE SIGNS

Witnessed ☐ Observed on Video ☐

Lying motionless on the playing surface	Y	N
Balance / gait difficulties / motor incoordination: stumbling, slow / laboured movements	Y	N
Disorientation or confusion, or an inability to respond appropriately to questions	Y	N
Blank or vacant look	Y	N
Facial injury after head trauma	Y	N

STEP 3: MEMORY ASSESSMENT MADDOCKS QUESTIONS²

² I am going to ask you a few questions, please listen carefully and give your best effort. First, tell me what happened?

Mark Y for correct answer / N for incorrect

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

Note: Appropriate sport-specific questions may be substituted.

Name: _____
DOB: _____
Address: _____
ID number: _____
Examiner: _____
Date: _____

STEP 4: EXAMINATION GLASGOW COMA SCALE (GCS)³

Time of assessment			
Date of assessment			
Best eye response (E)			
No eye opening	1	1	1
Eye opening in response to pain	2	2	2
Eye opening to speech	3	3	3
Eyes opening spontaneously	4	4	4
Best verbal response (V)			
No verbal response	1	1	1
Incomprehensible sounds	2	2	2
Inappropriate words	3	3	3
Confused	4	4	4
Oriented	5	5	5
Best motor response (M)			
No motor response	1	1	1
Extension to pain	2	2	2
Abnormal flexion to pain	3	3	3
Flexion / Withdrawal to pain	4	4	4
Localizes to pain	5	5	5
Obeys commands	6	6	6
Glasgow Coma score (E + V + M)			

CERVICAL SPINE ASSESSMENT

Does the athlete report that their neck is pain free at rest?	Y	N
If there is NO neck pain at rest, does the athlete have a full range of ACTIVE pain free movement?	Y	N
Is the limb strength and sensation normal?	Y	N

In a patient who is not lucid or fully conscious, a cervical spine injury should be assumed until proven otherwise.

* Indication: For any athlete who had moderate to severe head trauma by the opponent during the competition with any of following symptoms:

(1) loss of consciousness (2) altered mental status (3) nausea/vomiting/headache/dizziness (4) knockout(RSC)

Date		Time	
Competition / Round			
Full Name of the Injured athlete			
Country of Origin		WT GAL No.	
Weight Category		Sex	
Nature of head trauma			

※ Check below form every 15minutes, up to 1 hour at venue medical room

Time	Blood Pressure	Pulse Rate	Glasgow Score

Attestation

Date Time

I, the undersigned **Official Medical Director**..... of

the certify that I have examined and observed the

injured athlete, Mr/Ms for one hour in conformity with the WT Medical Code. Currently, he/she presents no neurological abnormality or signs suggesting medical emergency. Hereby, I will transfer the care of the injured athlete to

(Team physician/Head of team/Coach)..... for

observation. This athlete shall have suspension due to head trauma per WT Medical Code.

Signature of OMD

Signature of Team Physician
(or Head of Team or Coach)

This form must be filled in and given to (1) WT Medical Chair or Technical Delegate (2) Head of Team and shall be emailed to WT Sport Department (sport@worldtaekwondo.org).



TD must collect this form

Attestation

Date Time

I, the undersigned **Official Medical Director**..... of

the certify that I have examined and observed the

injured athlete, Mr/Ms for one hour in conformity with the WT Medical Code. Currently, he/she presents no neurological abnormality or signs suggesting medical emergency. Hereby, I will transfer the care of the injured athlete to

(Team physician/Head of team/Coach)..... for

observation. This athlete shall have suspension due to head trauma per WT Medical Code.

Signature of OMD

Signature of Team Physician
(or Head of Team or Coach)

This form must be filled in and given to (1) WT Medical Chair or Technical Delegate (2) Head of Team and shall be emailed to WT Sport Department (sport@worldtaekwondo.org).



WT Medical Suspension Form for Concussion/Knockdown

- Indication: Any athlete who had head injury and/or diagnosed with concussion by WT commissioned doctor or OMD during the competition

Date			Time	
Competition				
Full Name of the Injured Athlete				
Nationality		WT GAL No.		
Weight Category		Sex		
Nature of head trauma				
Treatment				

※ Please send (1) Medical Certificate AND (2) SCAT 5 form for this certificate) to the WT Sports Department (sport@worldtaekwondo.org) to be released from the suspension and resume the competition.

Your athlete Mr./Ms. _____ had head injury (or knockdown by significant injury) by the opponent during the _____ round of _____.

In conformity with the WT Medical Code, any athlete who cannot continue the match as a result of either (1) loss of consciousness more than 10 seconds by knockdown or (2) signs or symptoms that suggests concussion by neurologic exam include SCAT5 will get mandatory medical suspension. Therefore, per the WT Medical Code, he/she shall have [30 (senior)/ 45 (junior)/60 (cadet)] days of medical suspension from today, and may not participate in any competition during the suspension period. To resume the competition, the athlete must have a formal follow-up evaluation for neurologic exam and concussion evaluation, receive a medical clearance letter by the medical doctor (either neurologist or certified concussion specialist) which must be sent to WT Sport Department. The letter shall be reviewed by WT Medical Chairman and the decision for approval shall be informed by E-mail.

WT Medical Chairman
Dae Hyoun Jeong M.D.

[Sample Letter of the medical clearance for return-to-competition]

I, the undersigned medical doctor specialized in Neurology (or Certified Concussion Specialist) certify that I have examined the

(Nationality) athlete, Mr/Ms _____ who had a (head injury or concussion) on (DD/MM/YY) at (name of competition) by (explain the mechanism of injury, such as kicking, fall on head, etc).

Comprehensive physical examination and neurologic examination was performed today.

Currently, he/she does not present any neurological abnormality nor signs/symptoms suggesting concussion. Therefore, I certify that the athlete has been fully recovered from concussion (or head trauma) and the athlete may return to competition after the mandatory medical suspension period is completed.

Name of the medical doctor

Speciality of the medical doctor

Address of the hospital (or office) of the certifying medical doctor

Date of visit

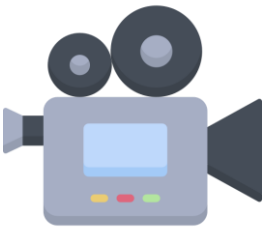
Signature

Stamp

Types and protocols for Medical Emergency in Taekwondo Competitions

*** For underreported, misdiagnosed or mismanaged without mandatory medical suspension, WT Sport Department, WT MC Medical Committee led by WT MC Chair shall investigate the case by retrospective video review of the incidence even after the competition period is over.**

- The incidence must be reported to WT MC Chair **within 30 days after the date of the incidence** to commence the investigation.
- If the **video review confirmed by at least three (3) reviewers** of WT medical committee reveals obvious concussion or serious head trauma (knockout more than 10 seconds) or other serious injuries which mandate at least 30-day mandatory medical suspension, WT medical committee shall override the medical examiner (OMD or CMD)'s decision and apply the mandatory suspension rules to the athlete to protect his or her health and safety.



Medical Withdrawal

1 For Invitation-based competitions

: The MNA or team doctor of the injured or ill athlete must submit the WT medical withdrawal request form to WT medical chair with supporting documents **before the deadline of the medical withdrawal.**

WT MC chair or WT medical committee member shall review the form and decide whether to approve the request or not.

Click
[World Taekwondo
Medical Form](#)



Re: Medical Withdrawal Request (updated the policy as of May 29th, 2018)

As of April 2018, WT sport department has been reinforced the requirement of the withdrawal from the participation in the Grand-Prix series competitions. After confirmation by WT sport department, you may be withdrawn from the participation if there is any serious injury or illness justifying the medical withdrawal.

MNA head of team or MNA head team doctor (medical doctor) need to provide WT sport department (sport@worldtaekwondo.org, medical@worldtaekwondo.org) with the correct information on all the component of (1) - (5) (and C.C to Dr Dae Hyoun Jeong, WT medical chairman (djeong@siumed.edu) when you request the review for the medical withdrawal of your athlete. All the documents will be reviewed by the WT medical chairman who will notify WT sport department on whether to approve or reject the withdrawal after his review on the case.

Please make sure all the component of documentation requirement is fulfilled before submitting the Medical Withdrawal Request. If there is any lack of supporting documentation, the medical chairman may request more document or explanation. So be aware that any lacking of documentation requirement will delay the entire process and WT medical chairman may reject the case if documents do not support the reason for medical withdrawal.

If MNA head of team and/or head team physician fails to provide appropriate supporting document or the reason for the medical withdrawal request is inappropriate, the medical chairman shall reject the approval and the MNA may be put on monitoring list.

* Please note that it may take up to five (5) days for medical chairman to review the case, so make sure to request the review for medical withdrawal with all the required supporting documents at least (1) week prior to the due date for withdrawal.

* Important: If any of information submitted to WT medical chairman is turned to be forged or untruthful and any these injury or illness are not properly updated in annual medical certificate of the athlete, WT medical chairman and WT sport department shall regard it as unethical conduct against Code of Ethics and process the sanction and disciplinary action against the MNA, athlete and head team physician.

Medical Withdrawal



2 During the event period

: The athlete with any serious medical injury or illness who wish to withdraw from the competition must be personally examined and get an approval by **WT MC Chair** (or medical officer of CSB for the competition) or **OMD** to be able to officially withdraw.

- Any request after his or her match is over shall not be considered for review except for emergent medical transfer to the hospital due to true medical emergency.

- In case of **emergent medical transfer**, the **MNA official** must **notify medical officer of CSB, TD and games director** at the venue as soon as possible, within the same day of the incidence.





ATHELTE WITHDRAWAL FORM DUE TO INJURY/ILLNESS

I, hereby withdraw the competition due to injury occurred under the following circumstances:

NAME OF THE COMPETITION (City/Country)	
DATE OF REPORTING (DD/MM/YY)	
NAME OF NATIONAL ASSOCIATION	
ATHELTE NAME (Family name in capital letter)	
GENDER	<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
WT GAL Number	
Date of Birth	(Day/ Month/ Year)
Weight Division	KG

Date and place of the Injury/Illness	
Explanation of the Injury/Illness (what and how happened)	
Diagnosis of the injury/Illness	
Reason for Withdrawal (explain why the injured/ill athlete needs to be withdrawn from the competition)	
Name of the Head of Team	
Signature of the Head of Team	

*** IMPORTANT: This form will be accepted only if**

(1) This form is filled out completely AND

(2) Medical certificate written by responsible medical doctor in English (or translated in English with public notarization) is attached to this form. Medical Certificate should include

- *Description of the medical condition (injury/illness), diagnosis of the medical condition, expected time-off period AND explanation of current treatment plan to justify the length of time-off*
- *Supporting documents to justify the diagnosis (such as report of imaging study such as x-ray, MRI, CT or Ultrasound, blood work or other workup or proof of the hospitalization, etc) is attached to this form*
- *Specialist's opinion if any specialist was ever involved in the athlete's case AND*

(3) These documents shall be emailed to WT sports department (sport@worldtaekwondo.org) and WT Medical Chairperson (dhjeong15@gmail.com) within 2 weeks after the onset of the injury or illness.

MNA PRESIDENT (OR HEAD OF TEAM) NAME, SIGNATURE or STAMP

Cardiac Arrest

- True medical emergency with high mortality rate

- Screening for cardiac condition can prevent the athlete from sudden cardiac death

- **High risk** athletes for cardiac arrest

- ① Family history of sudden cardiac arrest or sudden death

- ② Syncope, loss of consciousness, dizziness, irregular heart rhythm or chest pain during exercise

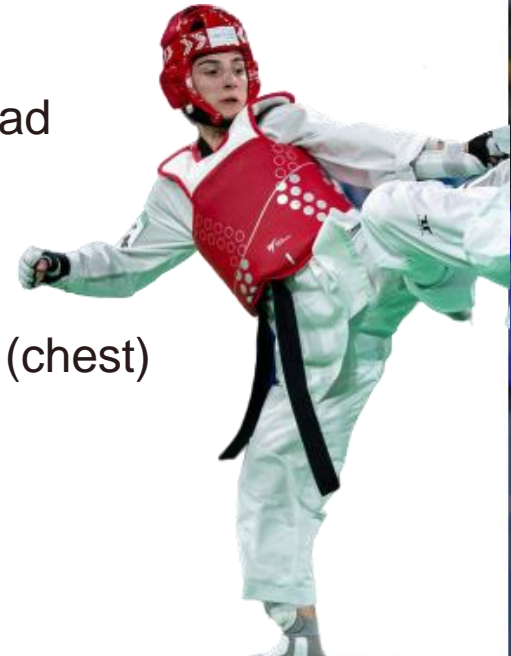
Cardiac arrest must be presumed if the athlete falls down unconsciously either

①

without blow to the head

②

with a blow to the trunk (chest)



Cardiac Arrest and sudden cardiac death



There was no medic or aed(defibrillator)
and No one started cpr on time

→ Death of the athlete

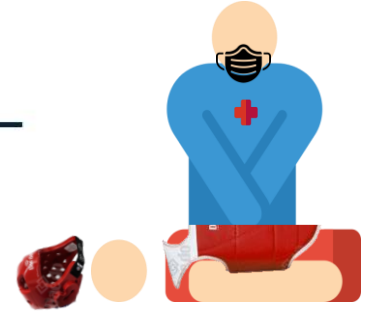


Sudden cardiac death by chest contusion



Cardiac Arrest

Cardiac arrest must be presumed if the athlete falls down unconsciously either



- First few minutes are essential to save the athlete's life

- Start **CPR** (resuscitation) immediately

- Always check **AED** (Defibrillator), which must be available at the venue and ready usable

- All the coaches must receive **CPR training** and get certified in CPR

- Any athlete who has high risk of cardiac arrest or had cardiac arrest must be seen by cardiologist and get complete **cardiac evaluation**

Management of Cardiac Arrest

- **FIRST FEW MINUTES ARE ESSENTIAL** to save the athlete's life!!

(CPR must be started immediately(**within 1 minute**) and electric shock (by AED or Defibrillator) must be given **within 3-5 minutes** after cardiac arrest!!!)

- In suspected cardiac arrest, **HEART** is more **PRIORITY** than head and neck!!

(1) Call and gently tap on athlete's chest (**DO NOT SLAP or SHAKE**), check carotid artery pulse on the neck and breathing in the nose and mouth (10 second)

(2) Call emergency medical service and activate ambulance

(3) ***Take off mouthguard and body protector(HOGU) ASAP!!! (within 30 second)**

(4) **Start CPR (resuscitation) immediately (not on HOGU, but on the CHEST). Follow BLS, ALS protocol**

(5) **After 2-3 cycles of CPR (at least 2 AED(defibrillator) shocks) on the mat by medical team, transfer athletes to the hospital as soon as possible**

- **Always check if AED (Defibrillator) is available at the venue**, which must be always available at the venue and ready to use,
- **All the coaches must receive CPR training every year and get certified/recertified in CPR (Basic Life Support, BLS) every 2 years.**
- **Referees are strongly recommended to receive CPR training every year**
- **Prevention/screening: Any athlete who has high risk of cardiac arrest or had previous history of cardiac arrest must be evaluated by cardiologist and get complete cardiac evaluation**



Medical simulation – cardiac arrest case



Medical simulation – cardiac arrest case



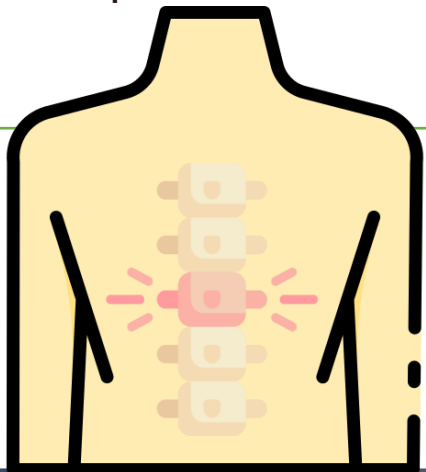
Medical simulation – cardiac arrest case



Cervical Spine injury and Spinal Cord Injury

Assume spine injury if:

- Head injury by rotational or axial force
- Unconscious or confused
- Spinal cord pain present
- Extremity weakness is present
- Loss of sensation



Signs or symptoms of Spinal Cord Injury

- Extreme pain or pressure in the neck, head or back
- Tingling or loss of sensation in the hand, fingers, feet or toes
- Partial or complete loss of control over any part of the body
- Urinary or bowel urgency, incontinence or retention
- Difficulty with balance and walking
- Abnormal band-like sensations in the thorax: pain, pressure
- Impaired breathing after injury
- Unusual lumps on the head or spine



Cervical Spine injury and Spinal Cord Injury

Management of suspected cervical spine injury

- Use log-roll, backboard and rigid c-collar, hospital transfer

Cervical Spine Injury is much LESS likely if

- Normal strength, sensation and reflexes in all extremities (arms and legs)
Good hand grip in both hands
- No numbness, tingling, weakness in any extremities
- Alert, normal consciousness
- Full, pain-free active range of motion of the neck
- No neck pain or neck tenderness

Cervical spine/ neck injury protocol

- Mechanism:

- (1) Rotational or axonal force to the head and
- (2) fall down, cannot stand up and/or
- (3) severe pain in the neck/weakness or numbness in the neck and arm or loss of consciousness



- After counting "Hana(one), Dul(two)", Call CMD immediately

1. CMD will **hold(stabilize) head/neck carefully** and check the cervical spine with caution
2. Any suspicion of sprain or fracture of the cervical spine (pain/tenderness of posterior neck, limited range of motion, numbness/tingling/weakness of arms/hands)
 - **CMD must stop the fight**
 - **C-spine immobilization protocol**

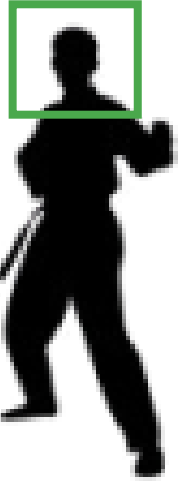
Medical simulation – knock out



Medical simulation – knock out, head and cervical spine trauma



Concussion and head trauma



Concussion

: mild traumatic brain injury induced by biomechanical forces

- (1) a direct blow to the head, face, neck
- (2) elsewhere on the body with an impulsive force transmitted to the head

Signs of Concussion



- ① Loss of consciousness
(less than one minute)



- ② Fall down to the floor



- ③ Impaired balance, nauseous,
confused or has blurred vision



- ④ Feels dizzy, groggy, nauseous,
confused or has blurred vision

Concussion and head trauma

Consequence of concussion



Increase the **risk** of
injury or accident



Decrease the academic
and athletic
performance



**Serious
complications**

(1) Chronic Traumatic
Encephalopathy
(early dementia/
parkinsonian syndrome)

(2) Second impact
syndrome (sudden death
by brain hernia)

Knockout/loss of consciousness by head trauma



Knockout/loss of consciousness by head trauma



Concussion

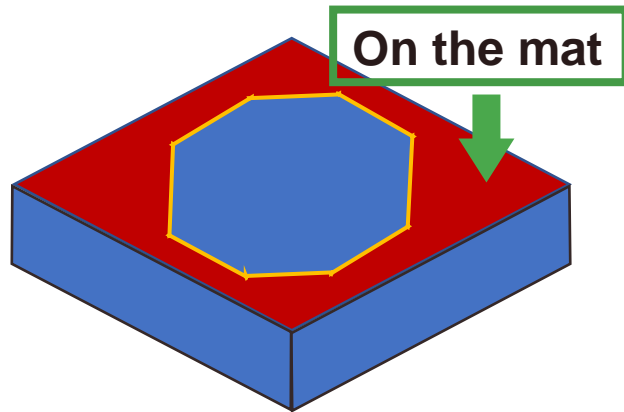


Concussion



Concussion and head trauma

Evaluation of concussion



: CMD will perform brief concussion evaluation within a minute

- ① check pupils with light and eye movement
- ② orientation (ask name, match round, place)
- ③ order simple command (sit down and stand up, raise hands)
- ④ check walking and balance (2leg stance, 1 leg stance, hopping on 2 legs and 1 leg)

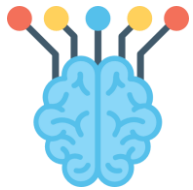
If the concussion suspected,

- ① **CMD to stop the fight**
- ② Venue doctor at medical room perform thorough evaluation using Sports Concussion Assessment Tool 5th edition (SCAT5) or other neurologic exam and fill out **observation form**
- ③ CMD will issue **medical suspension form** for concussion and the license will be blocked

Concussion and head trauma

Moderate to Severe head trauma

- Brain contusion or edema, brain hematoma (bleeding), skull fracture, diffuse axonal injury
- **Signs of more serious brain injury (moderate to severe head trauma)**
: Immediate hospital transfer is needed



① Neurological deficit



② Prolonged Loss of consciousness

OUT OF CONTROL



④ Impaired speech



⑤ Cannot stand up



⑥ Weakness or numbness of limb (asymmetric)



⑦ Repeated vomiting or nausea



⑧ Persistent headache or worsening headache



⑨ Seizure or conversion

Concussion and head trauma

Moderate to Severe head trauma

- Complication of severe head trauma: Coma, Vegetative state, brain death, permanent neurologic damage, death
- When more serious brain injury (e.g. head trauma) is suspected



① CMD or Centre referee to stop the fight immediately



② Take off mouthguard, check Glasgow-coma scale score, breathing status, and carotid pulse/rhythm quickly



③ Cervical spine protocol: keep the spine alignment, take off body protector and put the cervical collar cautiously



④ CPR and Oxygen if needed



⑤ Immediate hospital transfer

Severe head trauma with conversion/seizure



Severe head trauma with conversion/seizure



Concussion and head trauma

Return-to-competition protocol after concussion/head trauma

: the athlete may return to competition if meeting the below

1



Strictly follow and complete the post-concussion rehabilitation protocol by team doctor or team physiotherapist

2



Obtain the medical clearance letter by either neurologist, or qualified concussion specialist

3



Submit the medical clearance letter to WT Medical Division and MC Chair by email to request the review of the medical clearance letter for the return-to-competition

4



Complete the entire suspension period and receive the notification by WT Medical division and WT GMS Department

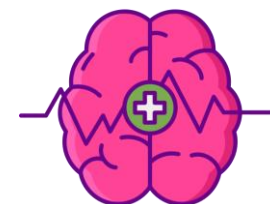
Concussion and head trauma

Mandatory medical suspension for any serious injury other than concussion/head trauma carries at least one month suspension

- Can be prolonged by specialist's recommendation or MC Chair's decision based on the seriousness of the medical condition.



The suspended athlete due to any major injuries other than concussion / head trauma may return to competition



① Follow-up with the specialist or team doctor for the medical condition

② Obtain a medical clearance letter by medical doctor, specialist or team doctor after the athlete's recovery and rehabilitation

③ The medical examiner MUST put a detail on the clearance letter as following the form

④ Submit the **clearance letter** to WT Medical Division (under sports department)

⑤ **Complete the entire suspension period** and receive the notification

Rapid Weight Loss

Strategies to avoid decreased performance after rapid weight loss

Gradual weight loss for adjusting weight

Maximize body fat loss and **minimize muscle wasting** and dehydration when adjusting weight

To reduce **more than 5%** of body weight or cut weight
: Fat would be lower than **5% for men** and **12% for women** should consider not losing weight

Should not undergo **low-carbohydrate diets** in order to make weight which can be actually more harmful to physical performance

Do strength training to maintain muscle mass during the weight loss period

Rapid weight loss by dehydration and restricted carbohydrate ingestion should be avoided if an athlete will have less than 2-3 hours to recovery after the weigh-in

During the recovery period after weigh-in, athletes are encouraged to **consume high amounts of carbohydrates**, fluids and electrolytes

Consult nutritionist for safe nutrition and weight loss strategies

NEW WT weigh-in rules (since June 2018)

2nd day random weigh-in with up to 5% weight gain allowance on 2nd day (competition day) weigh-in

Mouthguard, Taping and Bracing and Piercing



Principles of Mouthguard, Taping and Bracing

To provide athletes with safety protection and injury prevention

Must not harm the athlete or the opponent

Should not affect the athletic performance or the match result

Taping and brace will be strictly checked during the athlete inspection process

Must get the inspection and approval by OMD (or CMD) BEFORE enter the inspection area.

Click

[More detail of Mouthguard, Taping and Bracing rules](#)

Mouthguard, Taping and Bracing and Piercing



It is Team medical staff (and coach)'s responsibility to check and ensure the safety and health protection of team athletes in accordance to WT mouthguard, taping, bracing and piercing rule.

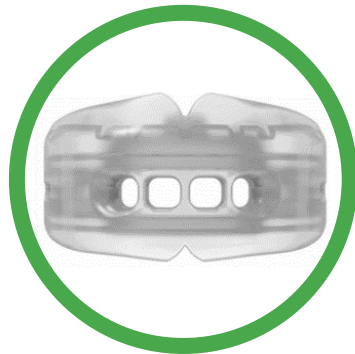
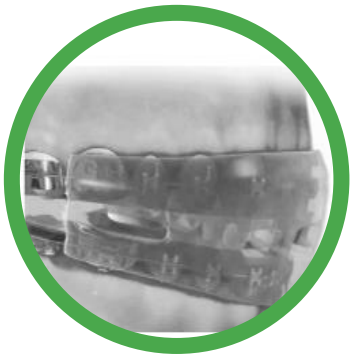
Mouthguard



Mouthguard, Taping and Bracing and Piercing

Athlete **with** brace

Must wear (1) full upper mouthguard and (2) either short lower mouthguard or lower brace shield/wax to completely cover exposed braces so that it is not going to harm the athletes or opponent.



Athlete **without** brace

Must wear at least a full upper mouthguard



Piercing or earring

Athletes must take piercing, earring or other ornament off from their face or body before entering inspection area.

* Any team medical staff or coach who neglect his or her responsibility to protect his or her athletes by not complying to these rules shall be subject to sanction or disciplinary action.

Mouthguard, Taping and Bracing and Piercing



Taping and Bracing

Taping and Bracing will be strictly checked during the athlete inspection process.

The minimal amount of tape may be used to protect and support an injured joint

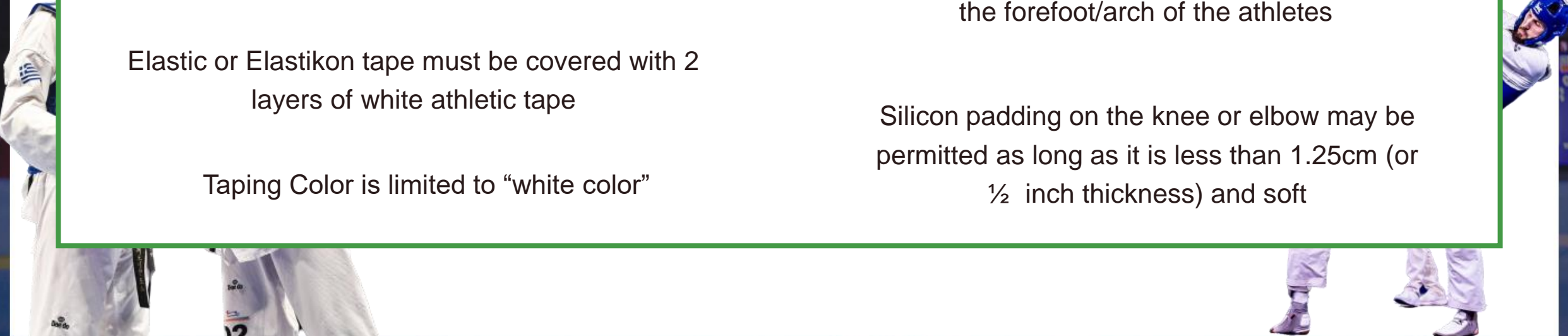
Elastic or Elastikon tape must be covered with 2 layers of white athletic tape

Taping Color is limited to “white color”

Maximum of 4 layers (2mm) for injury and maximum of 2 layers (1mm) for prevention is allowed

Only two layers of white tape are allowed on the forefoot/arch of the athletes

Silicon padding on the knee or elbow may be permitted as long as it is less than 1.25cm (or ½ inch thickness) and soft



Mouthguard, Taping and Bracing



Taping and Bracing



No taping on the knuckles of the fist is allowed



No hard substance (metal or plastic) is allowed to be used in taping or bracing



No hinges or hard material or shoestrings are allowed on braces. Only neoprene is permitted.

Padding of the dorsum of the foot must be only one or two soft sponge padding (**maximum thickness: ¼ inch (0.62cm) of thickness or 3 layers of gauze**). It must be maintained as soft when wrapped with minimal tape (up to 2 layers). It should not cover toe or ankle.

Thank you!