



INTERNATIONAL
OLYMPIC
COMMITTEE



London 2012 Olympic Summer Games

Injury & Illness Surveillance Study

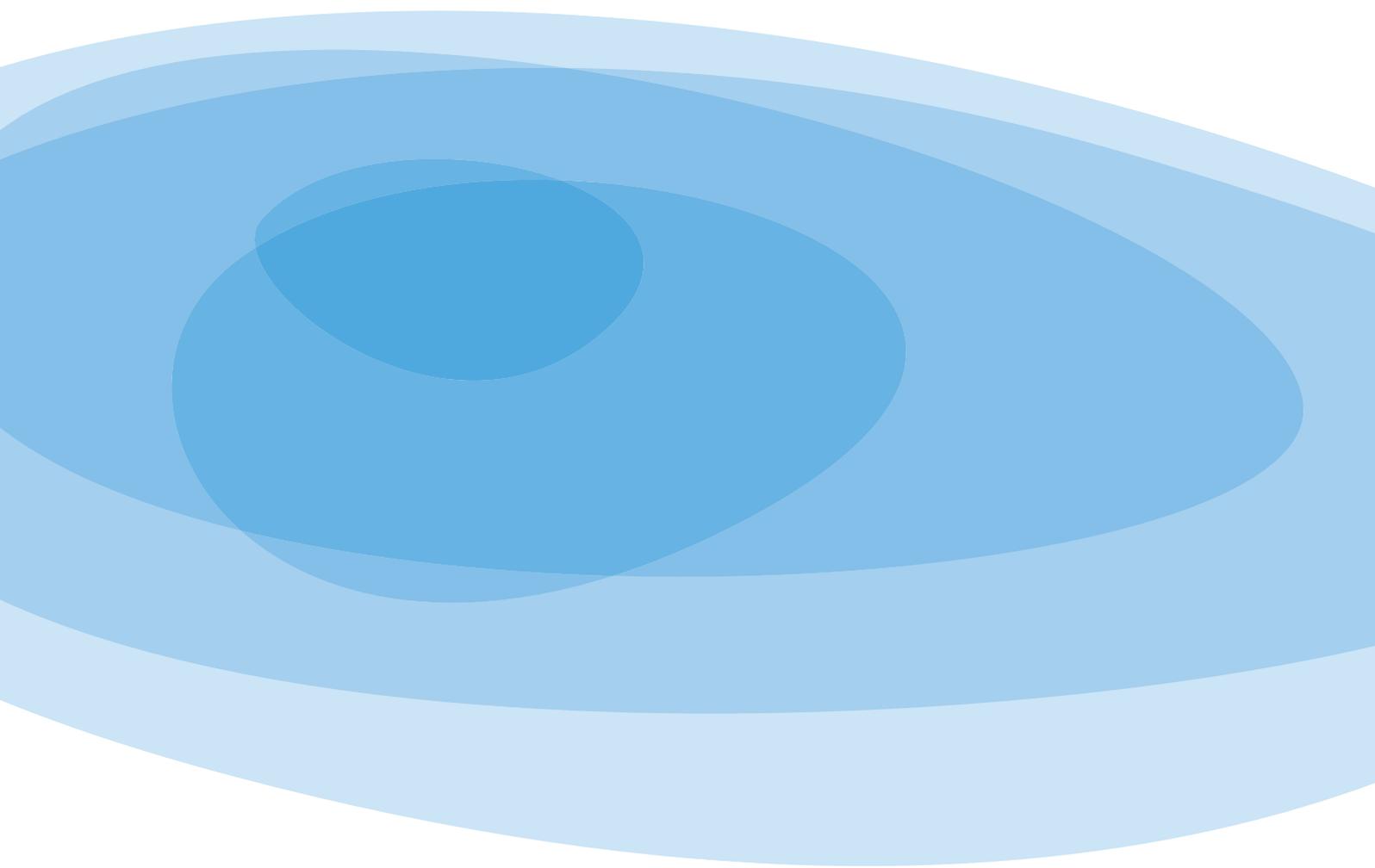


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Foreword

Dear Colleagues,

It is with great pleasure that we welcome you to London for the 2012 Summer Olympic Games. We are pleased to provide you with this introductory booklet, which will explain to you the details of the IOC Injury & Illness Surveillance Study. As you may know, the IOC is increasingly emphasizing work on the protection of the athletes' health and prevention of injuries and illnesses.

During the 2004 Olympic Games, injuries in all team sport tournaments (football, handball, basketball, field hockey, baseball, softball, water polo and volleyball) were surveyed, and the IOC extended the project to all sports events during the 2008 Olympic Games in Beijing. Further improvements were made in the 2010 Winter Olympic Games in Vancouver, where also illnesses were recorded. The surveillance study provide the sports world with invaluable data that help us identify injury and illness risk factors and mechanisms, that, in turn, is used to develop and implement prevention measures and thus create safer sports for the athletes' benefit.

You, as the team physicians and physiotherapists, are crucial to the success of the project, and we kindly ask you to **report all injuries and illnesses of your athletes on a daily basis** on the provided report forms and return them to the IOC research team. All information will be treated with the strictest **confidentiality**.

This booklet provides comprehensive information on how to fill in and return the daily report form. The IOC research group will process the data, and you will receive a formal report of the study in due course after the end of the Olympic Games. Our goal is to transfer the science into practice to provide you with valuable information that will enable you to organise your work in a more efficient way to prevent sports injuries among your athletes.

Thank you very much for your valuable contribution!



Prof. Arne Ljungqvist
Medical Commission Chairman



Dr Patrick Schamasch
Medical and Scientific Director



Prof. Lars Engebretsen
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Introduction

Injury surveillance provides not only important epidemiological information, but also direction for injury prevention. During the 2004 Olympic Games, the eight international team sports federations (FIBA, FIFA, FINA, the FIH, the FIVB, IBAF, the IHF and the ISF) participated in a study on the frequency and characteristics of injuries in all 14 team sport tournaments using an established injury-surveillance system. The acceptance and compliance of the project was excellent, as demonstrated by the response rate exceeding 90% for almost all tournaments. The findings, which were consistent with previous studies, demonstrated the high quality of the data obtained.

In Beijing 2008 the injury surveillance system was slightly modified to be applicable for both individual and team sports, and in Vancouver 2010 to also monitor illnesses. Thanks to the collaboration with you, the NOC physicians and physiotherapists, the quality of the data reported in these Games was excellent. The results from the IOC injury surveillance system have been published in the renowned peer-reviewed journals British Journal of Sports Medicine and American Journal of Sports Medicine.

The aims of the present study are to record newly acquired illnesses and sports injuries incurred in competitions and/or training during the 2012 Summer Olympic Games in London.

Confidentiality

The accreditation number of the athletes will be used only to avoid double reports from team and LOCOG physicians and to obtain information on age, gender, nationality and national federation of the athlete from the IOC database. **The accreditation number of the athletes will not be entered into the injury and illness database;** all injury & illness report forms will be stored in a locked filing cabinet and will be made anonymous after the 2012 London Olympic Games. All reporting will be either for groups of athletes, or in a way that **no individual athlete or team can be identified.**

Confidentiality of all information will be ensured.



Methods

This injury and illness-reporting system can be briefly summarised as follows:

During the 2012 Summer Olympic Games, the NOC physicians or physiotherapists of all participating teams are requested to report all injuries newly incurred in competitions and/or training and all illnesses (or the non-occurrence of injuries/illnesses) daily using a specially designed, single-page report form. Injury and illness data will also be obtained from the medical staff of the local organizing committee. The report form is available in eight languages (English, French, Arabic, Chinese, German, Japanese, Russian and Spanish) **on paper form and electronically**. All information will be treated as strictly confidential. The team physicians will receive a formal report of the study in due course after the Olympic Games.

1

What should be reported?

All newly acquired injuries of athletes

An injury is defined as any musculoskeletal complaint and/or concussion newly incurred due to competition and/or training during the 2012 Summer Olympic Games in London that received medical attention regardless of the consequences with respect to absence from competition and/or training.

This injury definition includes four aspects:

1. all injuries that received medical attention (not only time-loss injuries);
2. newly incurred (pre-existing, not fully rehabilitated injuries should not be reported);
re-injuries (injuries of the same location and type) should be reported only if the athlete has returned to full participation after the previous injury;
3. in-competition or training injuries;
4. during the period of the Olympic Games (27 July to 12 August 2012).

All newly acquired illnesses of athletes

An illness is defined as any physical complaint (not related to injury) newly incurred during the 2012 Summer Olympic Games that received medical attention regardless of the consequences with respect to absence from competition and/or training.

This illness definition includes three aspects:

1. all illness that received medical attention (not only those resulting in time-loss);
2. newly incurred (pre-existing and chronic illnesses should not be reported except the athlete suffers an acute exacerbation);
3. during the period of the Olympic Games (27 July to 12 August 2012).

2

Who reports?

National Olympic Committee medical staff (team physician, physiotherapist, etc., i.e. qualified medical staff)

Injuries and illnesses should be diagnosed and reported by qualified medical personnel (team physician, physiotherapist, etc.) to ensure valid information on the characteristics of the injury and/or illness and a comparable standard of the data. It is advantageous if each team designates one contact person who will take part in the Team Physicians' meeting and will be accessible for questions during the period of the Olympic Games.

In order to receive information about injured/ill athletes of teams without a physician or medical personnel, injuries and illnesses will also be reported by the medical personnel of LOCOG.

3

When to report?

On a daily basis

Acute injury and illness should be reported daily. The IOC injury & illness surveillance system requires a daily report regardless of whether or not any injury has occurred. This procedure is important to distinguish between the non-occurrence of injuries and illnesses from a missing report of a team.

4

What details should be reported?

Newly acquired injury

The injury component of the report form requires documentation of the following information: accreditation number of the athlete, sport and event, round / heat / training, date and time of injury, injured body part, type and cause of injury and an estimate of the expected duration of subsequent absence from competition and/or training.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>athletics – 100m (women)</i>		round, heat or training <i>quarter final – 1st heat</i>		date and time of injury <i>7.08.2012, 14:35</i>	
injured body part, side <i>wrist, left</i>	code <i>15</i>	type of injury <i>sprain</i>	code <i>8</i>	cause of injury <i>slipped and fell</i>	code <i>21</i>	absence in days <i>10</i>	

Definitions and codes are given on the back page of the report form (see appendix 2, page 13).

In the situation when the diagnosis (or the duration of absence) is revised later as more information about the injury becomes available, the team physician should report the injury again (with the previous data and location of injury to indicate that this is a revised report) and state the corrected information. You will find more examples on how to fill in the injury report form in appendix 2.

Newly acquired illness

The illness component of the report form requires documentation of the following information: accreditation number of the athlete, sport and event, diagnosis, date of first occurrence, affected system, main symptom(s), cause of illness and an estimate of the expected duration of subsequent absence from competition and/or training.

athlete's accreditation no. <i>1564579587979</i>		sport and event <i>football (men)</i>		diagnosis <i>cystitis</i>		occurred on (date) <i>2.08.2012</i>	
affected system <i>uro-genital</i>	code <i>3</i>	main symptom(s) <i>pain</i>	code <i>2</i>	cause of illness <i>infection</i>	code <i>2</i>	absence in days <i>0</i>	

Definitions and codes are given on the back page of the report form (see appendix 2, page 13).

5

How to return the report forms?

The completed report forms should be submitted to the injury and illness study researchers at the IOC Medical Commission office in the Olympic Village polyclinic, or sent by email to torbjorn.soligard@olympic.org.

Appendix 1:

Examples of how to record acute injuries

1. A female hammer-thrower developed shoulder instability 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. The team physiotherapist recommended an individual training programme for the athlete to avoid aggravating the condition.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>hammer throw (women)</i>		round, heat or training <i>training</i>		date and time of injury <i>10.08.2012, 08:00</i>	
injured body part, side <i>shoulder, left</i>	code <i>11</i>	type of injury <i>instability</i>	code <i>5</i>	cause of injury <i>overuse (gradual onset)</i>	code <i>1</i>	absence in days <i>0</i>	

2. A decathlete sustained an ankle sprain during competition but continued to compete; the athlete received medical attention following the competition. The athlete completed full competition using ankle taping (with some pain) but aggravated the injury the following day; the athlete then required rehabilitation and stopping from training. Estimated duration of treatment = 15 days.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>decathlon (women) – high jump</i>		round, heat or training <i>competition – first day</i>		date and time of injury <i>7.08.2012, 17:00</i>	
injured body part, side <i>ankle, right, medial</i>	code <i>27</i>	type of injury <i>sprain</i>	code <i>8</i>	cause of injury <i>non contact trauma</i>	code <i>3</i>	absence in days <i>0</i>	

Second Incident should be recorded as another injury

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>decathlon – 1500m</i>		round, heat or training <i>competition – second day</i>		date and time of injury <i>8.08.2012, 12:00</i>	
injured body part, side <i>ankle, right, medial</i>	code <i>27</i>	type of injury <i>sprain</i>	code <i>8</i>	cause of injury <i>recurrence of injury</i>	code <i>4</i>	absence in days <i>15</i>	

3. Male football player is hit in the head by arm of another player. He suffers from a contusion to his cheek, a laceration to his eyelid and a concussion.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>football (men)</i>		round, heat or training <i>competition – preliminary round</i>		date and time of injury <i>29.07.2012, 12:00</i>	
injured body part, side <i>head</i>	code <i>1, 2</i>	type of injury <i>concussion, laceration, contusion</i>	code <i>1, 11, 16</i>	cause of injury <i>contact with other player</i>	code <i>11</i>	absence in days <i>7</i>	

4. A beach volley player sprained her left ankle during training. She received treatment by the PT, and was then taken to the hospital for MRI and secondary treatment.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>beach volleyball (women)</i>		round, heat or training <i>training</i>		date and time of injury <i>30.07.2012, 10:45</i>	
injured body part, side <i>ankle, left, lateral</i>	code <i>27</i>	type of injury <i>sprain</i>	code <i>8</i>	cause of injury <i>non contact trauma</i>	code <i>3</i>	absence in days <i>2</i>	

Revised diagnosis (after MRI) should also be provided on the injury report form.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>beach volleyball (women)</i>		round, heat or training <i>training</i>		date and time of injury <i>30.07.2012, 10:45</i>	
injured body part, side <i>ankle, left, lateral</i>	code <i>27</i>	type of injury <i>ligament rupture without instability</i>	code <i>7</i>	cause of injury <i>already reported</i>	code	absence in days <i>>20</i>	

5. A football player sustained a rotation injury to his right knee during the first game of the Games.

athlete's accreditation no. <i>TAM 1234569587979</i>		sport and event <i>football (men)</i>		round, heat or training <i>match against Germany</i>		date and time of injury <i>04.08.2012, 18:42</i>	
injured body part, side <i>knee, right, medial</i>	code <i>24</i>	type of injury <i>sprain</i>	code <i>8</i>	cause of injury <i>contact with other player</i>	code <i>11</i>	absence in days <i>>14</i>	

6. A marathon runner suffers a muscular cramp in the gastrocnemius and has to quit the race. Expected to not miss time.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>marathon</i>		round, heat or training <i>competition</i>		date and time of injury <i>9.08.2012, 11:35</i>	
injured body part, side <i>gastrocnemius</i>	code <i>25</i>	type of injury <i>cramps</i>	code <i>19</i>	cause of injury <i>overuse (sudden onset)</i>	code <i>2</i>	absence in days <i>0</i>	

7. A male 10000m runner slipped on wet ground and sustained a laceration to the leg during a morning training session; the physician sutured the cut but the athlete missed the afternoon training session. The athlete was able to take a full part in competition on the following day.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>10000m (men)</i>		round, heat or training <i>training – morning session</i>		date and time of injury <i>11.08.2012, 10:00</i>	
injured body part, side <i>calf, left</i>	code <i>25</i>	type of injury <i>cut</i>	code <i>16</i>	cause of injury <i>slipped on wet ground</i>	code <i>3</i>	absence in days <i>0</i>	

8. A table tennis player fell down and sprained his ankle when getting off the bus on his way to the venue.

Incident should not be recorded as an injury.

Examples of how to record acute illness

1. A female basketball player develops sudden onset of fever and a sore throat for 2 days. On examination, she is found to have acute tonsillitis. She is expected to miss 2 days of training and competition.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>basketball (women) – preliminary</i>		diagnosis <i>tonsillitis, cold</i>		occurred on (date) <i>30.07.2012, 12:15</i>
affected system <i>respiratory</i>	code <i>1</i>	main symptom(s) <i>fever, pain</i>	code <i>1, 2</i>	cause of illness <i>infection</i>	code <i>2</i>	absence in days <i>2</i>

2. A female weightlifter suddenly becomes ill after dinner with abdominal cramping, vomiting and diarrhea. A diagnosis of acute gastroenteritis was made. She is expected to miss 3 days of training.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>weightlifting (women, 53kg)</i>		diagnosis <i>gastroenteritis</i>		occurred on (date) <i>3.08.2012, 19:00</i>
affected system <i>gastrointestinal</i>	code <i>2</i>	main symptom(s) <i>abdominal cramping, vomiting, diarrhoea</i>	code <i>2, 3</i>	cause of illness <i>dinner</i>	code <i>4</i>	absence in days <i>3</i>

3. A male 5000m runner with known stable asthma suddenly becomes acutely short of breath upon arrival in the competition venue. He complains of cough and shortness of breath. He requires medical intervention for stabilization. He is expected to miss 1 day of competition.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>5000m (men) – semi-final</i>		diagnosis <i>asthma</i>		occurred on (date) <i>5.08.2012, 10:45</i>
affected system <i>respiratory</i>	code <i>1</i>	main symptom(s) <i>cough and shortness of breath</i>	code <i>4</i>	cause of illness <i>asthma, environmental</i>	code <i>1, 4</i>	absence in days <i>1</i>



4. A female race walker collapses at the finish line after the 20k race. She complains of dizziness, weakness and confusion. She requires medical intervention for stabilization. She is not expected to miss time from competition as her event is complete.

athlete's accreditation no. <i>1234569587979</i>		sport and event <i>racewalking – 20k (women)</i>		diagnosis <i>dehydration</i>		occurred on (date) <i>9.08.2012, 13:00</i>	
affected system <i>cardiovascular</i>	code <i>4</i>	main symptom(s) <i>dizziness, weakness and confusion</i>	code <i>8, 11</i>	cause of illness <i>exercise induced</i>	code <i>3</i>	absence in days <i>0</i>	

5. A female hockey player with known diabetes presents to the medical clinic for a renewal of her insulin prescription. Her sugars are stable and she does not require any medical intervention.

This illness should not be reported.

Appendix 2:

Report form for acute injuries & illnesses



Daily Report on Injuries and Illnesses



NOC _____ Report by (name) _____ Date of report _____ /2012

Contact details (e-mail/tel.) _____

Please report: (1) All injuries (traumatic and overuse) and (2) all illnesses newly incurred in competition or training during the Olympic Games regardless of the consequences with respect to absence from competition or training. The information provided is for medical and research purposes and will be treated confidentially.

1. Injury – Example

Definitions and codes of 1 to 6 see reverse

athlete's accreditation no. <i>123456789</i>		sport and event <i>athletics, 100m (women)</i>		round, heat or training <i>quarter final / 1st heat</i>		date and time of injury <i>7.8.2012 - 14:35</i>	
injured body part, side <i>wrist, left</i>	code <i>15</i>	type of injury <i>sprain</i>	code <i>8</i>	cause of injury <i>slipped and fell</i>	code <i>21</i>	absence in days <i>10</i>	

athlete's accreditation no.		sport and event		round, heat or training		date and time of injury	
injured body part	code	type of injury	code	cause of injury	code	absence in days	

athlete's accreditation no.		sport and event		round, heat or training		date and time of injury	
injured body part	code	type of injury	code	cause of injury	code	absence in days	

athlete's accreditation no.		sport and event		round, heat or training		date and time of injury	
injured body part	code	type of injury	code	cause of injury	code	absence in days	

athlete's accreditation no.		sport and event		round, heat or training		date and time of injury	
injured body part	code	type of injury	code	cause of injury	code	absence in days	

2. Illness – Example

Definitions and codes of 1, 2, 7, 8 and 9 see reverse

athlete's accreditation no. <i>1564579587979</i>		sport and event <i>football (men)</i>		diagnosis <i>tonsillitis, cold</i>		occurred on (date) <i>02.08.2012</i>	
affected system <i>respiratory</i>	code <i>1</i>	main symptom(s) <i>fever, pain</i>	code <i>1, 2</i>	cause of illness <i>infection</i>	code <i>2</i>	absence in days <i>2</i>	

athlete's accreditation no.		sport and event		diagnosis		occurred on (date)	
affected system	code	main symptom(s)	code	cause of illness	code	absence in days	

athlete's accreditation no.		sport and event		diagnosis		occurred on (date)	
affected system	code	main symptom(s)	code	cause of illness	code	absence in days	

No injury or illness in any athlete of our team today

Please use additional forms if needed.

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Codes and classifications

1 Estimated duration of absence from training or competition (in days)

Please provide an estimate of the number of days that the athlete will not be able to undertake his/her normal training programme or will not be able to compete.

0 = 0 days	7 = 1 week	28 = 4 weeks
1 = 1 day	14 = 2 weeks	> 30 = more than 4 weeks
2 = 2 days	21 = 3 weeks	> 180 = 6 months or more

2 Sport and event

Please state the event. For example: swimming – 4x100m freestyle relay (women); track – 110m hurdles (men); taekwondo – under 58kg (men); cycling – team sprint (women)

For Injuries

3 Round, heat or training

If the injury occurred during competition, please state the round (e.g. heats, qualification B, final).

If the injury occurred on another occasion, please specify whether it was training, warm-up or other.

4 Injured body part (location of injury)

Head and trunk

- 1 face (incl. eye, ear, nose)
- 2 head
- 3 neck / cervical spine
- 4 thoracic spine / upper back
- 5 sternum / ribs
- 6 lumbar spine / lower back
- 7 abdomen
- 8 pelvis / sacrum / buttock

Upper extremity

- 11 shoulder / clavicle
- 12 upper arm
- 13 elbow
- 14 forearm
- 15 wrist
- 16 hand
- 17 finger
- 18 thumb

Lower extremity

- 21 hip
- 22 groin
- 23 thigh (a: anterior / p: posterior)
- 24 knee (m: medial / l: lateral)
- 25 lower leg (a: anterior / p: posterior)
- 26 Achilles tendon
- 27 ankle (m: medial / l: lateral)
- 28 foot / toe

5 Type of injury (diagnosis)

- 1 CONCUSSION (regardless of loss of consciousness)
- 2 fracture (traumatic)
- 3 stress fracture (overuse)
- 4 other bone injuries
- 5 dislocation, subluxation
- 6 tendon rupture
- 7 ligamentous rupture

- 8 sprain (injury of joint and / or ligaments)
- 9 lesion of meniscus or cartilage
- 10 strain / muscle rupture / tear
- 11 contusion / haematoma / bruise
- 12 tendinosis / tendinopathy
- 13 arthritis / synovitis / bursitis
- 14 fasciitis / aponeurosis injury

- 15 impingement
- 16 laceration / abrasion / skin lesion
- 17 dental injury / broken tooth
- 18 nerve injury / spinal cord injury
- 19 muscle cramps or spasm
- 20 other

6 Cause of injury

- 1 overuse (gradual onset)
- 2 overuse (sudden onset)
- 3 non-contact trauma
- 4 recurrence of previous injury

- 11 contact with another athlete
- 12 contact: moving object (e.g. puck)
- 13 contact: stagnant object (e.g. pole)
- 14 violation of rules (obstruction, pushing)

- 21 field of play conditions
- 22 weather condition
- 23 equipment failure
- 24 other

For Illnesses

7 Affected system

- 1 respiratory / ear, nose, throat
- 2 gastro-intestinal
- 3 uro-genital / gynaecological
- 4 cardio-vascular

- 5 allergic / immunological
- 6 metabolic / endocrinological
- 7 haematological
- 8 neurological / psychiatric

- 9 dermatologic
- 10 musculo-skeletal
- 11 dental
- 12 other

8 Main symptom(s)

- 1 fever
- 2 pain
- 3 diarrhoea, vomiting
- 4 dyspnoea, cough

- 5 palpitations
- 6 hyper-thermia
- 7 hypo-thermia
- 8 dehydration

- 9 syncope, collapse
- 10 anaphylaxis
- 11 lethargy, dizziness
- 12 other

9 Cause of illness / symptom(s)

- 1 pre-existing (e.g. asthma, allergy)
- 2 infection

- 3 exercise-induced
- 4 environmental

- 5 reaction to medication
- 6 other

Research team

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If in doubt, please do not hesitate to contact any of the above.

**Thank you very much indeed
for your valuable contribution!**