

Appendix I – Consensus Statement 2016 Definitions

1. Injury definitions

Match time-loss injury
Any injury or other medical condition that either: 1) prevents a player from being fully available for selection for a major match or 2) during a major match, causes a player to be unable to bat, bowl or keep wicket when required by either the rules or the team's captain.
General time-loss injury
A general time-loss injury is any injury (or illness) that would have resulted in a player being considered unavailable for match-play, irrespective of whether a match or training was actually scheduled.
Medical attention injury
A medical attention injury (or illness) is any health-related condition that required medical (or medical staff) attention and had the potential to affect cricket training or playing. It therefore includes time-loss and non-time loss injuries.
Player-reported injury
A player-reported injury is any condition which was considered to represent an injury by a player who is under survey.
Imaging-abnormality (injury)
An imaging-abnormality (injury) is any condition which gives rise to abnormal findings on specific imaging.

2. Mode of onset

<p>The following different modes of onset of injury are suggested:</p> <ol style="list-style-type: none">(1) Sudden-onset non-contact injury (e.g. ankle sprain during the bowling run-up)(2) Impact/traumatic injury (blow or contact) (e.g. fractured rib due to collision with another player)(3) Gradual onset associated with bowling/running/throwing/batting practice/weight training (e.g. low back pain with gradual onset which is experienced during and aggravated by the fast bowling action)(4) Insidious (gradual and no identifiable mode of onset) (e.g. posterior thigh pain which started with no identifiable cause)(5) Medical illness (e.g. the flu) <p>The mechanism of injury should be described as this will assist in an accurate mode of injury classification. Injuries and illnesses sustained outside cricket that affect availability to play cricket should be noted.</p>
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3. Definitions of injury recovery and recurrence

Recurrent injury: match time-loss injury
An injury is considered recovered once a player has returned to full (unrestricted) participation in at least one match (of any type or grade). A recurrent injury is one to the same side and body part and of the same injury type as an injury that previously qualified as a significant injury earlier in the same season, but which had recovered. For a match time-loss injury, recovery is return to an actual match.
Recurrent injury: general time-loss injury
Recovery from a general time-loss injury differs from recovery for a match time-loss injury, in that recovery is when medical staff determine the player has returned to match availability, regardless of whether a match is scheduled for that day or not.
Recurrent injury: medical-presentation injuries
Recovery from a medical–presentation injury is determined by the injury no longer needing ‘active’ medical management (or, if the injury required ongoing medical management for the entire remainder of the season, at the end of the surveillance year). Recurrence occurs when an injury which had stopped requiring medical management re-entered this category in the same year.

4. Injury incidence measures

Calculation of injury incidence
Injury incidence analyses the number of new injuries (or new plus recurrent) occurring over a given time period, and should be measured in either or all of the following major formats.
Match injury incidence
Match injuries from all phases (batting, bowling and fielding): injuries per 1000 player days; bowling injuries: injuries per 1000 overs bowled; batting injuries: injuries per 10000 deliveries faced. Bowling injuries could alternatively be converted into a unit of bowling injuries per 10000 deliveries bowled (1 over = 6 deliveries).
Training injury incidence
Training injuries from all phases (batting, bowling and fielding): injuries per 1000 player days; bowling injuries: injuries per 1000 overs bowled; batting injuries: injuries per 10000 deliveries faced. Bowling injuries could alternatively be converted into a unit of bowling injuries per 10000 deliveries bowled (1 over = 6 deliveries).
Annual injury incidence
Annual injuries (new, recurrent or combined) per 100 players per year
Time-loss and non time-loss injuries as a function of injury duration
There is potential for different injuries to have different status under varying definitions. For example, some injuries will be considered both <i>time-loss</i> and <i>non time-loss</i> at different periods of the injury duration. Time-loss injuries that either commence as, or become, a non-time loss injury can be accounted for by recording multiple dates for that particular injury: <ol style="list-style-type: none"> (1) The date of first symptoms (onset of a ‘player-reported’ injury) (2) The date of first medical presentation (onset of a ‘medical-presentation’ injury) (3) The date the player is first ‘considered’ unavailable for match play (onset of a ‘general time-loss’ injury) (4) Actual dates of matches missed (period of a ‘match time-loss’ injury) (5) The date when ‘considered’ available for match play (recovery from a ‘general time-loss’ injury) (6) The date of actual return to play (recovery from a ‘match time-loss’ injury) (7) The date that ‘active’ medical management is no longer required (recovery from a ‘medical-presentation’ injury) (8) Recovery of all symptoms (recovery of a ‘player-reported’ injury)

5. Injury prevalence measures

Match injury prevalence
Injury prevalence considers the average number of squad members not available for selection through injury or illness for a given time period divided by the total number of squad members. Injury prevalence should be expressed as a percentage, representing the percentage of players missing through injury on average for that team for the season in question. It is calculated using the numerator of 'missed player games', with a denominator of number of games multiplied by squad members.
Annual injury prevalence and general injury prevalence
Injury prevalence can also be presented as a percentage of players unavailable, based on general time-loss status taking into account daily status over a tournament or 365 day period. This injury prevalence should be referred to as "annual injury prevalence" when used for 365 days or "general injury prevalence" if used, say, for a tournament.

6. Characterisation of player positions

<p>With respect to match injury incidence within the various phases of the game, a player should be categorised by the role he or she was undertaking at the time of injury. Therefore, a player who is usually a fast bowler is categorised as such when taking into account injury prevalence and yearly injury incidence; when considering the rate of bowling match injuries, this player is only considered as a bowler in the act of actually bowling. When batting, any injury sustained (even by a player who is considered a bowler) is a batting injury, and when injured fielding one's own bowling, this injury is considered a fielding injury.</p> <p>Bowlers therefore are now best defined as players who have bowled more than 10% of the overs bowled by their team in matches that they played in, for either of the two previous seasons ["either of two" qualification included to capture an "all-rounder" who may have played as a batsman only for a part of a single season due to injury]. This 10% rule can be applied to wicketkeepers (a wicketkeeper is a player who has kept wicket for more than 10% of overs that they been in the field for, meaning that part-time wicketkeepers are defined generally as wicketkeepers rather than batsmen).</p>
Type of bowler
Bowlers should be stratified initially (and primarily) into fast (or pace) and slow (or spin). The categorization between the two is usually clearcut, with a key difference being that the wicketkeeper will always stand directly behind the stumps for slow/spin bowlers. Bowlers can be sub-categorised, within the pace spectrum as 'fast', 'fast-medium' and 'medium' and within the spin category as off/finger spin and leg/wrist spin. The player profiles listed by Espn (Wisden) Cricinfo (http://www.espn-cricinfo.com/) tend to be universally accepted.

7. Definition of time-frames

Annual vs seasonal injury rates

For (adult) players who only play one sport (i.e. cricket), the injury rate for a cricket 'season' would almost equate to an 'annual' rate. For junior players who may play, say, one of the football codes in winter and cricket in summer, it would be important to note that a rate was a 'seasonal' incidence rate (not including injuries from the other sport) rather than an 'annual' incidence rate (which would include injuries sustained whilst playing other sports).

Tournament vs match injury rates

For a tournament that lasted for, say, 2 months, injury rates could theoretically be multiplied by 6 to give a 'annual' injury incidence based on the hypothetical situation of a similar tournament being indefinitely played 6 times per year. However, in reporting tournament injury incidence (e.g. for a World Cup, or in a domestic T20 competition) it may be preferable to use match injury incidence rates rather than annual incidence rates.

8. Definition of cohorts

The cohort to be followed for a given team should be referred to as the 'squad'. A match-day team consists of 11 players (11 active players and the 12th man) whereas a squad for a team contains a varied number of players. The squad to be followed can consist of any number of players, which should be recorded for all times of surveillance (i.e. for the entire year if annual surveillance is being undertaken).

Appendix II – Consensus Statement 2016: Additional Information pertaining to Injury Surveillance Systems

Information that an injury surveillance system should attempt to collect:

Details for player exposure
<ol style="list-style-type: none"> (1) Player participation in each major match and in different playing roles (2) Reasons for not participating for all squad members not playing—that is, playing at another level, injured, not available for another reason, not selected (3) Number of overs/deliveries bowled in each innings (for all players who bowled) (4) Number of deliveries faced in each innings (for all players who batted) (5) Occasions where match participation was ceased through injury (including batsmen retiring hurt, bowlers being unable to complete an over and wicketkeepers having to relinquish gloves), or in the case of concussion/head injury, threatened (that is, a concussion assessment was performed) (6) Eventual length of the match (in days actually played) (7) Player status/exposure on other days – training (and whether fit or not), traveling or ‘off’. (8) Number of overs/deliveries bowled or deliveries faced on training days (9) Status of each day within the diary (match day, training day, travel day, off day being the options)
Details for each injury recorded
<ol style="list-style-type: none"> (1) Player name (2) Player details—for example, date of birth, gender, bowling type, ethnic origin, dominant side for batting, bowling and throwing (3) Injury diagnosis (including code and body region) (4) Injury side (left/right/bilateral/central/not applicable) (5) New injury/recurrence (6) Time of onset (match/training/other vs gradual onset but first noticed at which time) including match details (7) Activity of onset (batting/bowling/fielding/gradual), including fielding position, type of bowling faced where relevant (8) Dates of onset and recovery to meet the various injury definition thresholds (9) Mechanism description (if available) or broadly - mode of onset (10) Qualifications to meet definition threshold (match time-loss, time-loss, medical presentation) (11) Details of any surgery required or any other major treatment (if relevant) (12) Did this injury cause the player to leave cohort or retire from cricket? Yes/No (13) Where relevant, protective equipment use and/or failure e.g. helmet, pads, gloves, thigh/chest/forearm/groin protectors

Preferred injury categories (with suggested new categories)	
Head and neck	Fractured facial bones Concussion [+/- sub-concussive head impacts] Neck injuries Other head region injuries
Shoulder	Shoulder tendon injuries Shoulder dislocations/instability Other shoulder injuries
Arm, elbow, forearm	Arm/forearm fractures Other elbow/arm injuries
Wrist and hand	Wrist and hand fractures Other wrist/hand injuries
Chest & trunk	Side and abdominal strains Chest & abdominal impact injuries Other trunk injuries
Lumbar spine	Lumbar stress fractures Other lumbar injuries
Groin, hip and thigh	Groin strains Hip joint injuries Hamstring strains Quadriceps strains Buttock and other thigh injuries
Knee	Knee cartilage injuries Other knee injuries
Shin, foot and ankle	Calf strains Shin and foot stress fractures Ankle and foot sprains Other shin, foot and ankle injuries
Medical	Heat-related illness Other medical illness