

# IOMCA FAST BOWLING DIRECTIVES

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## **Injury prevention for fast bowlers**

These Directives apply to girls and boys, and any reference to he/his should be interpreted to include she/her.

For the purpose of these Directives, a fast bowler should be defined as a bowler to whom a wicket keeper in the same age group would, in normal circumstances, stand back to take the ball.

All coaches are urged to identify those players with the potential to bowl fast and to ensure they follow the Directives in all cricket throughout the season.

There are four main areas to be aware of when assessing injury risk to fast bowlers:

1. Overbowling
2. Technique
3. Physical Preparation
4. Equipment

### **1. Overbowling**

This is an important consideration especially for young bowlers whose bodies are not fully developed. Recent studies have revealed that overbowling is a common cause of back injuries. Evidence suggests that much of the damage occurs early in the playing career, especially during growth spurts, though the effects do not often show themselves until the late teens. The more talented and more physically mature youngsters are generally most at risk, as they tend to play at more than one age group level.

To ensure that young fast bowlers do not place undue stress on their bodies, every attempt must be made to keep the amount of bowling within reasonable limits. The following Directives provide sensible playing and training levels.

Directives for matches:

Up to 13 - Max 5 overs per spell and 10 overs per day

U14, U15 - Max 6 overs per spell and 12 overs per day

U16, U17 - Max 7 overs per spell and 18 overs per day

U18, U19 - Max 7 overs per spell and 18 overs per day

Directives for practice sessions:

Up to 13 - Max 30 balls per session and 2 sessions per week

U14, U15 - Max 36 balls per session and 2 sessions per week

U16, U17 - Max 36 balls per session and 3 sessions per week

U18, U19 - Max 42 balls per session and 3 sessions per week

Having completed a spell the bowler cannot bowl again, from either end, until the equivalent number of overs to the length of his spell have been bowled from the same end. A bowler can change ends without ending his current spell provided he bowls the next over he legally can from the other end. If this does not happen his spell is deemed to be concluded. If play is interrupted, for any reason, for less than 40 minutes any spell in progress, at the time of the interruption, can be continued after the interruption up to the maximum number of overs per spell for the appropriate age group. If the spell is not continued after the interruption the bowler cannot bowl again, from either end, until the equivalent number of overs to the length of his spell before the interruption have been bowled from the same end. If the interruption is of 40 minutes or more, whether scheduled or not, the bowler can commence a new spell immediately.

Once a bowler covered by these Directives has bowled in a match he cannot exceed the maximum number of overs per day for his age group even if he subsequently bowls spin. He can exceed the maximum overs per spell if bowling spin, but cannot then revert to bowling fast until an equivalent number of overs to the length of his spell have been bowled from the same end. If he bowls spin without exceeding the maximum number of overs in a spell the maximum will apply as soon as he reverts to bowling fast.

## **Nets**

Outdoor:

The emphasis on all nets should be quality rather than quantity. These Directives will encourage young fast bowlers to focus their efforts on shorter, more intensive spells. Consequently young fast bowlers should be made aware of the importance of warming up and warming down as part of their preparation.

Indoor:

In the period between the end of the cricket season and Christmas, indoor practice for fast bowlers should be kept to an ABSOLUTE MINIMUM. The following highlights the risk of playing/practising on hard surfaces such as solid concrete and shows how these forces can be reduced by using appropriate mats or indeed by practising on grass. Concrete offers 0% force absorption whereas grass can offer up to 75%. The 34% offered by natural turf was measured at Trent Bridge on a rock hard Test Match pitch. These figures have major implications for limiting indoor work in the winter, particularly for seamers, and for ensuring that length and intensity of sessions are considered when working on the harder surfaces.

Force absorption and surfaces:

Concrete - 0% force reduction  
Uniturf on concrete - 7% force reduction  
Uniturf + mat - 15% force reduction  
Uniturf + 2 mats - 31% force reduction  
Natural turf - 34% force reduction  
Synthetic + underlay - 49% force reduction

## **2. Technique**

It is crucial that bowlers are encouraged to adopt a safe action early in their development. Bowlers should either have a SIDE-ON, a FRONT-ON or a 'MIDWAY/NEUTRAL' action, but SHOULD NEVER MIX THE ACTIONS. The mixed actions (of which there are two main types) are a major cause of back injuries, because they cause an unnecessary spinal twist. Excessive hyperextension of the back during the delivery stride is also a contributing factor.

For further clarification of mixed actions consult the 'ECB Coaches Manual' or an appropriately qualified cricket coach.

### **3. Physical Preparation**

A well structured, cricket specific training programme is essential to develop, and maintain, the strength, endurance and flexibility required for fast bowling. It is one of the most injury-liable non-contact activities in sport and the need for the fast bowlers to be amongst the fittest and best prepared players in the team cannot be over emphasised. Bowlers should WARM UP and STRETCH thoroughly before bowling and training, and should WARM DOWN and STRETCH afterwards. A good warm up helps to encourage a more professional approach, helps team spirit and can actually improve performance. It also helps to reduce the chance of an injury occurring.

### **4. Equipment**

Impact forces of up to eight times body weight can be experienced during the delivery stride. Without the appropriate footwear, these forces must be absorbed by the feet, ankles, knees and lower back of the bowler. It is therefore essential that bowlers minimise these effects by absorbing them with the use of efficient, well-fitting, cushioned boots or shoes and if required, absorbent insoles. The use of running shoes, basketball-type boots or good cross trainers is also essential as they are designed to cope with the types of forces experienced when bowling on hard surfaces.

The IOMCA have also adopted as a directive in any seven day period any player should not play more than four days in that period and for a maximum of two days in a row.