

BOWLING - ADDITIONAL INFORMATION 1

FAST BOWLING AND INJURIES

Injuries to fast bowlers are still as rife as ever and the causes are still the same. The technique issue has been updated a little by identifying a number of 'new' mixed techniques but the issues of poor physical preparation, poor equipment and facilities, and over use are still very much apparent. These problems will not just go away. It will take a concerted effort on the parts of the coaches, administrators, parents and players to start to improve this dire situation.

TECHNIQUE

The side-on and front-on actions are still very much acceptable and should be encouraged. As we are more adept at coaching the side-on action and because this action is deemed the best as it encourages away swing this action is the action that should be taught to beginners. If young bowlers do not or cannot get their back feet round, or if they find it difficult to bowl side-on they should be encouraged to bowl with a more front-on action. In doing this it is important that the players stay as upright as possible and keeps their shoulders front-on throughout the delivery stride. If they allow their shoulders to become side-on during the delivery stride then they are becoming 'Mixed'.

The Mixed action is still very common and is still dangerous. It has been shown that there are a number of 'Mixed Techniques' and not just one. The 'traditional mixed' technique is known as the 'front-on: mixed' technique (Fig.4) as the lower body is in a front-on position and the upper body is, or attempts to become, 'side-on'. Another 'mixed' technique is the 'side-on: mixed' action (Fig.3). This action involves a side-on lower body and a front-on upper body at back foot contact. It is actually far more common than all other types of action and it has been suggested that it is more dangerous too. There are a couple of other mixed techniques which involve the hips or the shoulders being over side-on. This inevitably leads to an excessive twist in the back which can, and normally does, lead to back problems.

In summary, the basic rule for bowling is:

**KEEP THE HIPS AND SHOULDERS IN LINE AND YOU'LL BE FINE:
TWIST THE BACK, AND IT WILL CRACK!**

PHYSICAL PREPARATION

Poor physical condition is also a major factor in determining the longevity of bowlers. Coaches, parents and teachers are often far too happy bowling their quickies into the ground (and thus performing one of the most unusual and most injury liable movements known on the sporting field) and yet would advise them away from a gym or other physical work. Pursuing a general sports programme throughout the year is probably one of the best ways to prepare for a long cricket career (at whatever level). Muscles that are not used in the summer are used in the winter and hence a strong balanced physique is developed. Failure to develop an all-round fitness can lead to postural and fitness problems and is also one of the reasons for injury.

Running around the pitch during the warm-up might be the only physical activity (other than playing) that most players do all week. Similarly, the stretching may be the only flexibility work they do. It is the coach's responsibility to make sure the warm-up and stretching is safe, worthwhile, simple and enjoyable. If it is simple and they enjoy it they are more likely to do it when they are training on their own.

All bowlers irrespective of age should perform a regular and structured trunk conditioning programme. Abdominal muscles can be worked 4-5 times a week and should involve sit-ups/crunches, oblique work and strengthening exercises for the back.

BOWLING - ADDITIONAL INFORMATION 1

EQUIPMENT

The use of absorbent footwear (basketball boots/shoes or runners for indoor nets) and the use of absorbent floor surfaces all help to reduce the risk of injury due to excessive forces. In cases where poor equipment is used, sessions should be reduced in length and intensity accordingly.

OVER USE

Irrespective of the other risk factors, the vast majority of the players who break down with back problems have all been seriously overbowed in the period immediately before the injury showed itself (and probably for years prior to that). For this reason long term adherence to the Fast Bowling Directives is essential. Even with the best technique in the world (of which there are very few), and a perfect, strong and flexible physique (also a commodity that is rare) players could not withstand the levels of demands that would be placed on them by their schools, clubs, school associations, county boards and other representative bodies. Captains, team managers, coaches and indeed the players themselves should take responsibility for their playing and training loads and ensure that the programmes fit within the Directives.

THE FAST BOWLING DIRECTIVES:

The figures in the tables below are based on players bowling in no more than 3 matches or practice sessions per week for age groups up to and including U15, and 4 matches or practice sessions per week for age groups up to and including U19. Players can play in other matches provided they do not bowl.

DIRECTIVES FOR MATCHES

Age	Max. overs per spell	Max. overs per day
Up to 13	4 overs per spell	8 overs per day
U14, U15	5 overs per spell	10 overs per day
U16, U17	6 overs per spell	18 overs per day
U19	7 overs per spell	21 overs per day

DIRECTIVES FOR PRACTICE SESSIONS

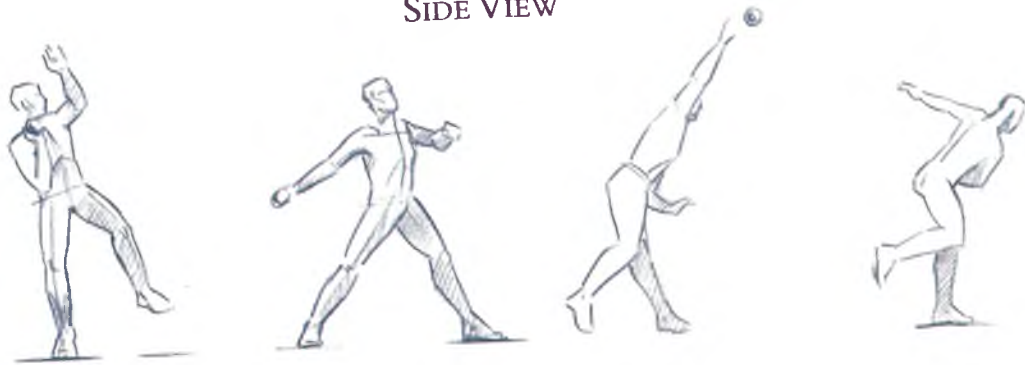
Age	Max. balls per session	Max. sessions per week
Up to 13	30 balls per session	2 sessions per week
U14, U15	36 balls per session	2 sessions per week
U16, U17	36 balls per session	3 sessions per week
U19	42 balls per session	3 sessions per week

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. 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.

BOWLING - ADDITIONAL INFORMATION 2

FIG. 1 SIDE-ON ACTION
SIDE VIEW



FRONT VIEW

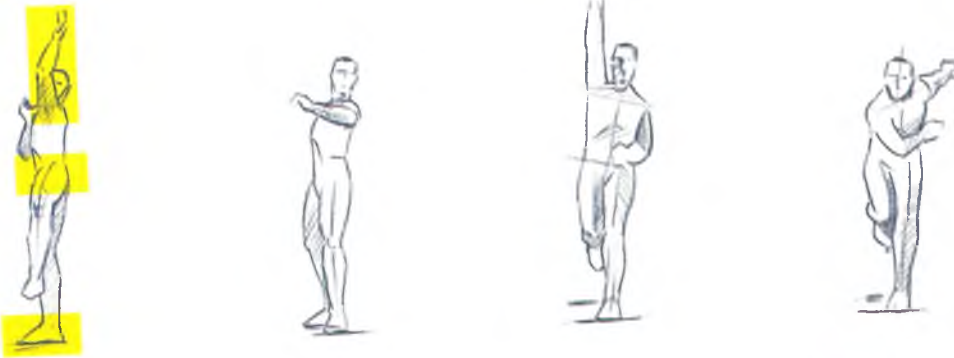
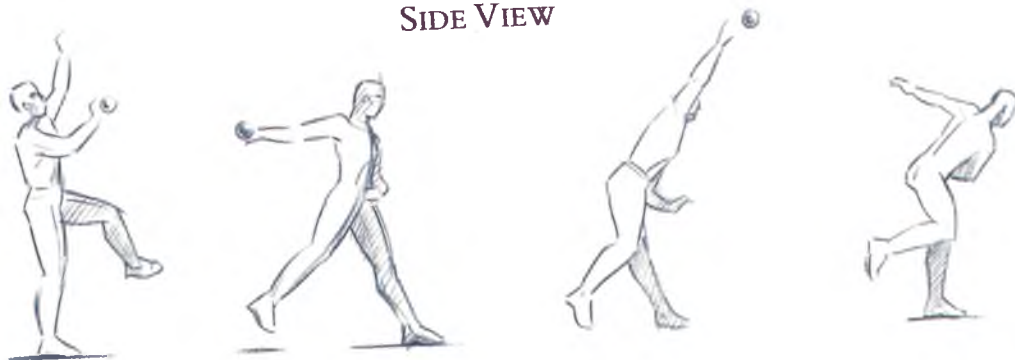
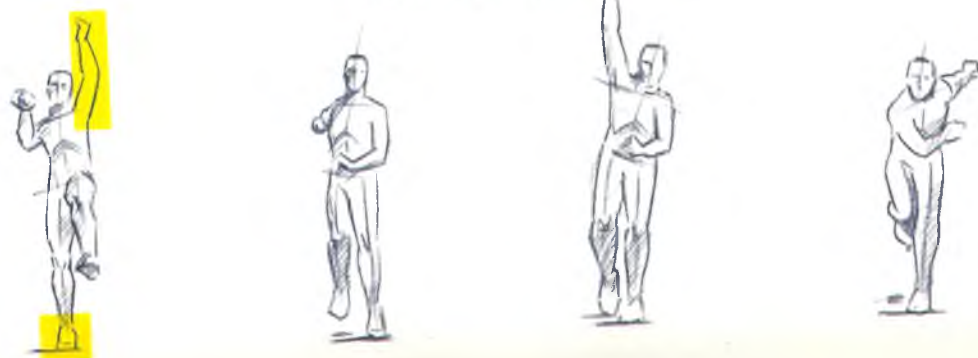


FIG. 2 FRONT-ON ACTION
SIDE VIEW

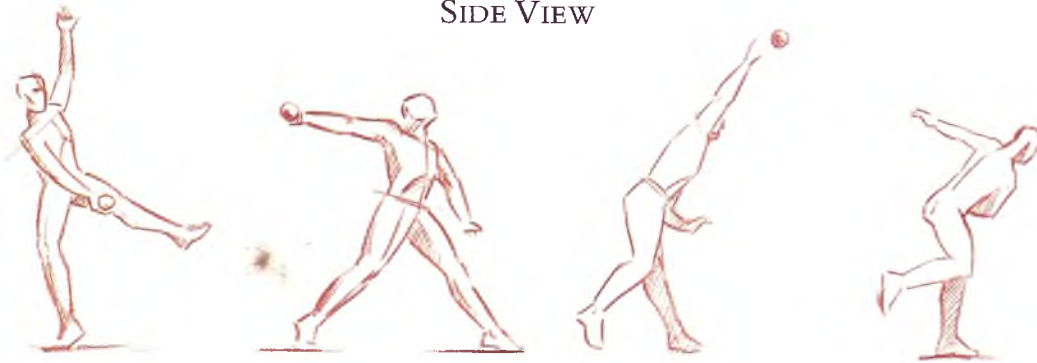


FRONT VIEW

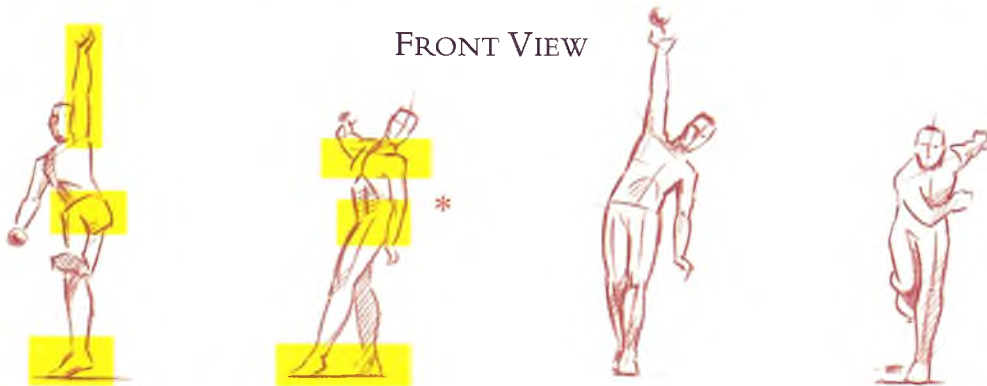


BOWLING - ADDITIONAL INFORMATION 2

FIG.3 SIDE-ON MIXED ACTION
SIDE VIEW



FRONT VIEW

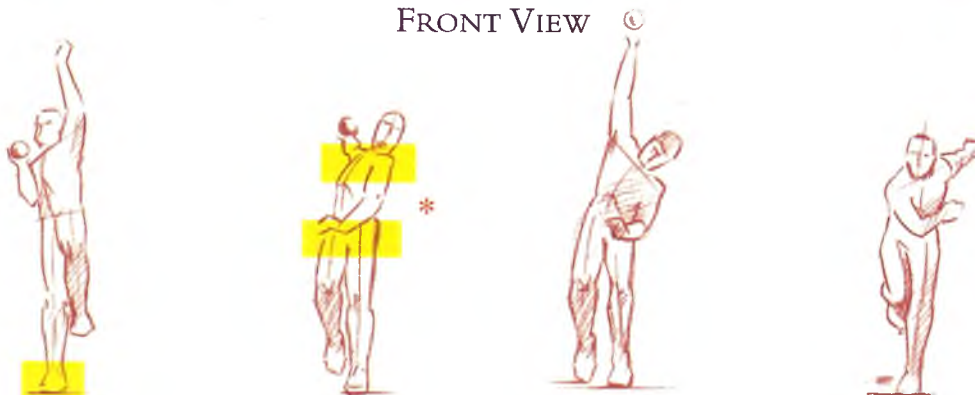


* Often, the significant part of the side-on mixed action occurs at front foot contact, when the hips are still 'closed' (because of an angles delivery stride) but the shoulders are 'open'.

FIG. 4 FRONT-ON MIXED ACTION
SIDE VIEW



FRONT VIEW



* Often, the significant part of the front-on mixed action occurs at front foot contact, when the hips 'open' but the shoulders rotate towards a more side-on position.