



CRICKET INJURIES

Cricket can lead to injuries similar to those seen in other sports which involve running, throwing or being hit by a hard object. However, there are some injuries to look out for especially in cricket players.

Low Back Injuries

A pace bowler can develop a stress fracture in the back. This can develop in the area of the vertebra called the **pars interarticularis** (“**pars**”) in players aged 12-21. Parsstress fractures are thought to be caused by repetitive hyper-extension and rotation of the spine that can occur in fast bowling. The most common site is at the level of the 5th lumbar vertebra (L5).

Risk Factors

Factors in bowling technique that are thought to increase the risk of getting a pars stress fracture are:

- Posture of the shoulders and hips when the back foot hits the ground: completely side-on and semi-open bowling actions are the safest. A mixed action (hips side-on and shoulders front-on or vice versa) increases the risk of injury.

Interestingly, recent research is suggesting the completely front-on action may be unsafe as rotation of the spine tends to occur in the action following back foot impact. Up until now, front-on was thought to be the safest.

- Change in the alignment of the shoulders or of the hips during the delivery stride.
- Extended front knee at front foot contact with the ground.
- Higher ball release height.

The other general risk factor for injuries in bowlers is high bowling workload: consecutive days bowling and high number of bowling sessions per week. There may be a range of number of deliveries per week below which and above which increases the risk of injury (“dual bowling threshold”).



The Injury

The pain of a pars stress fracture is felt in the low back on one side or in the midline. It is worse with activity, especially if rotation or extension of the spine occurs. X-ray can sometimes show if a pars fracture has occurred. If fractures on both sides of the vertebra are present, a slip forward of one vertebra compared to the one below, can be seen (“spondylolisthesis”). A bone scan is sensitive in picking up a stress fracture, and a CT scan targeted to the “hot” location can reveal if it is affecting the pars, and how long it has been present.



A CT scan with arrow pointing to the pars fracture.

Bowlers can also get back pain from inflammation of the small joints between each vertebra (facet joints) or from wear and tear of the intervertebral discs in the low back.

Treatment

Cricket players who have had pars stress fractures can still make a full return to sport. A rehabilitation programme involving strengthening of deep abdominal, trunk and gluteal muscles, and stretching of hamstrings and gluteals is followed for up to 3 to 6 months.

Bowling action may need to be modified once training is resumed.

Side Strains

A range of conditions can lead to pain in the side of the ribs opposite to the bowling arm. The tips of the lowest ribs can enlarge and rub against the pelvis during the delivery stride (bony impingement) or the soft tissue can get pinched between the two structures (soft tissue impingement). Sometimes even the bone and cartilage tip of the lower ribs can break off. Occasionally the injury is a true “side strain”, where the muscle between the ribs tears.



The bowler feels the pain in his or her side when leaning over to the bowling side and when coughing or sneezing. Treatment involves modifying bowling technique, taping and a rehabilitation programme to stretch out the upper spine and strengthen the deep trunk muscles.

Other Injuries

Other common injuries sustained while batting or in the field are strains or tears of muscles in the leg, groin injuries, ankle sprains, hand and finger injuries and head and facial injuries. The shoulder can be affected by rotator cuff tears or strains, tears of the cartilage (labrum) and instability. Treatment depends on the specific condition but initial management as with any soft tissue injury, is **RICE**: **R**est the injured area, **I**ce to the injury every 2 hours for 20 minutes, **C**ompression by bandage if possible and **E**levation of the injured body part. All of these help to minimise swelling and to prevent further damage to the already injured tissues.