Extrinsic causes of injury are those that are external to the athlete e.g. due to the environment, equipment, playing surfaces, other players etc. Extrinsic factors cause more injuries than intrinsic ones. Thus their manipulation offers the greatest scope for injury prevention. Brief comments on some of the more important extrinsic factors are given below (modified from Watson 1997)

- Foul play is a major cause of injury in body contact sports: stricter rule enforcement offers great scope for injury prevention.
- Rule changes have reduced the incidence of injuries in several sports e.g. American football, ice hockey and gymnastics.
- Recklessness is a major cause of injury in young, inexperienced players.
- Hard surfaces (concrete floors) increase the incidence of overuse injuries.
- The friction of shoes and playing surface needs to be carefully matched: friction too low → injuries due to falling; friction too high → injuries to joints and muscles (strains and sprains).
- The effects of different surfaces on the incidence of running injuries has not yet been definitely established.
- In American football the introduction of helmets reduced the number of head injuries but increased the incidence of catastrophic neck injuries. Protective equipment can be effective but its introduction must be carefully researched. Poor protective equipment may cause injuries.
- Orthotics. Can be effective but are over-prescribed and are often used for conditions better treated by other means.
- Research on the effectiveness of the following items in injury prevention is not conclusive: use of high-top shoes in preventing ankle injury, ankle taping, knee supports, knee braces.
- The effects of injury prevention programmes. There have been few studies but it seems such programmes are more likely to increase the knowledge of the subjects than to reduce the number of injuries.

REFERENCE