

## Prevention Strategies Of Badminton Injuries

Mohamed Ali MR, Ng WM, Al-Fayyadh MZM, Teo SH

*Department of Orthopaedic Surgery, Faculty of Medicine, University of Malaya, Kuala Lumpur, 50603, Malaysia.*

### INTRODUCTION:

The common badminton injuries are as follows: the sprained ankle and foot, patella tendinitis, tennis elbow, rotator cuff injury and Achilles tendinitis.

### METHODS:

Review of the latest methods and strategies of prevention by the University Hospitals of Hong Kong, Denmark and the Professional Physiotherapy Services in the UK.

### RESULTS:

Table showing incidence of badminton injuries ( Fong et al 2007 )

Epidemiology Most Injured Areas	Percentage (%)
Ankle	23.5
Knee	14.0
Foot	12.5
Arm/Shoulder/Elbow	8.5
Leg/Achilles Tendon	5.4

### DISCUSSION:

When the time of exposure is taken into account, men are found to have a higher injury risk than women, and recreational players a higher injury risk than elite players. While overuse injuries are commoner in most cases, traumatic injuries usually happen at the ankle or the foot. Elite senior players have a higher incidence of recurrent injuries. Junior elite and recreational or potential athlete players have a higher incidence of new injuries. In contrast to most other sports the relative injury risk is higher during training than in competition. Elite junior athletes are going through transition from less intensive training to very

intensive training resulting in high tensile loading and stresses on their musculoskeletal system. As the athletes adapt to the high intensive training load and volume, the incidence rate of injuries decreased among the elite senior group. The change in the tendon load and the repeated tensile overload of the musculoskeletal tendinous unit have been suggested to be associated with the aetiology of tendinopathy. General measures such as the warm up and the cool down, help to ensure oxygenation to the muscles and removal of waste products. Nutrition and hydration ensure endurance for the game. Fitness such as general conditioning, aerobic fitness, strength training of the upper limb and shoulder muscles reduce muscle imbalance and ensure endurance. Core strength training increase the transfer of power of play and reduce injuries. Specific measures such as changes in the badminton shoe, towards a higher heel, with shock absorption and a stiffer anatomically fitting heel counter; specific badminton training including stretching and strengthening of the triceps surae and the muscles involved in the internal and external rotation of the shoulder and elbow during the badminton strokes are suggested.

### CONCLUSION:

Deployment of general and specific strategies of prevention are helpful in the reduction of common badminton injuries.

### REFERENCES:

1. Yung P et. al. Research in Sports Medicine 2007; 15: 133–146
2. Fong et. al. Sports Medicine 2007; 37: 73-94.
3. Hoy K et. al. Br J Sports Med 1994; 28: 276-279