



Fig. 3. A CLASSIFICATION OF SPORTS INJURIES

may not necessarily apply here. The decision as to whether future competition, perhaps allied with a neglect of treating the injury, should be undertaken is a matter for the competitor. Sportsmen make this plea to practitioners of sports medicine – “understand that our motivations are strong, and help us occasionally to suffer the consequences of our actions without judging us in strictly medical terms”.

The Place of Physiotherapists

In one sense, the aim of sports medicine is to make physiotherapy unnecessary. The first part of the treatment of the sportsman is the prevention of injuries. In the better organised situations, physiotherapists may play a part in preventative practices, but essentially preventative sports medicine is a combination of proper physical training, efficient medical care, enlightened administration of the regulations of play, and good design of playing facilities or equipment. The responsibility for the prevention of injuries lies with the coach, or manager.

If injuries nevertheless occur, the first aid is again the responsibility of the coach, but in all but the most trivial circumstances his aim must be to advance the injured athlete to the next phase which is the proper assessment of the injury by a sports medicine specialist. In this country, both of these aspects are at a lamentably low ebb. Certainly, the British Association of Sport and Medicine is beginning to improve the latter situation, but very little is being done to improve the former.

The final phase is the rehabilitation of the injured sportsman. This should be a team effort, between the doctor, coach, athlete and sometimes the physiotherapist. Except in professional soccer, this is seldom the case. British sport, with the exception of professional soccer, seems to be dogged by the failures of sportsmen and women to reproduce their best performances because of injury problems. The solution lies in our own hands.

SPORTS INJURIES: THE DEMANDS AND REALITIES OF BASKETBALL

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INTRODUCTION

Though basketball is theoretically a non-contact sport, in reality this is not true. The main court location for physical contact is around the basket.

Scores in top class competition average about fifty baskets per team. There are many more scoring attempts resulting from the ball's rebounding off the backboard. Practically all of the ten players on court may be attempting to gain

possession from a rebound. The fight for possession often results in "held ball" incidents, i.e. when opposing players simultaneously have possession of the ball. Players in shooting situations are exposed to injury as they are primarily concentrating on scoring. Even when fouled a player will continue his attempt to score and think little of personal safety.

COMMON INJURIES. Injuries can be categorised either in terms of behavioural causal factors, site or type of injury. Each category is considered in the injuries described here.

"Bridging". "Bridging" occurs when a fast dribbling attacker takes off into a powerful jump-shot close to the basket and a defender moves underneath him. As the shooter is concentrating on the basket he may be caught unawares and serious injury can result. Most players try to break the fall by rolling and only minor bruises and abrasions may result. If the player is unable to roll serious injury may be incurred. Common injuries that can result are fractures of the metacarpals, scaphoids or clavicles, and head injuries. Cerebral concussion or more serious brain damage can occur.

Jammed fingers. Catching the ball in basketball is mainly performed under pressure and often an aggressive snatching technique is used. Defenders make full use of their hands and arms to intercept passes, secure rebounds, and knock away the ball from an opponent. As a result the ball is often "stabbed" by one or more fingers resulting in a painful "jamming" causing contusion of the interphalangeal or metacarpophalangeal joints. The result is a swollen painful joint with impaired function. It is common practice to tape the injured finger to an adjacent one and for the player to continue playing.

Sometimes dislocation of the joint occurs. Again it is usual for a coach to "pull" the joint back into place. This player too usually continues playing.

Knee and ankle injuries. The sudden stopping, starting, changing of direction, twisting, jumping, and landing, impose considerable strain on the knee and ankle joints. Floor surfaces and footwear play a large part in the effect on these joints. Due to prevailing economic constraints modern sports centres employ hardwearing multipurpose flooring which does not have the resilience of the traditional wooden sprung floor. Players are not always wise in the choice of footwear, while shoe manufacturers design within commercial constraints. The torsion during violent twisting movements can result in injuries to the semilunar cartilages and collateral or cruciate ligaments of the knee joints, and to the ankle joints.

The ankle sprain usually involves an inverted and equinus position, incurring damage to the anterior talofibular ligament (Lunceford, 1971). The extent of the damage depends on the forces operating.

Elbow injuries. Apart from its susceptibility as a site of injury the elbow can constitute a dangerous weapon. As players attempt to secure rebounds their elbows are raised to head height and may produce painful contacts between elbows and heads. Players may be coached in the use of elbows and this may cause contusions and bruises. The elbow joint is not invulnerable and contact between it and the floor can result in linear fractures and detachments.

Abrasions. Abrasions caused by the skin's contacting the floor are commonplace and are referred to as "strawberries". Players either play on or wash the affected area with soap and water.

Contusions. Muscle contusions most frequently implicate the quadriceps or biceps brachialis. A direct firm blow, usually from a knee or elbow causes torn muscle tissue with resultant haematoma development. If the periosteum is affected a myositis can develop (Lunceford 1971). Such injuries if not treated can impair a player's function for a period that can vary from a few weeks to several months.

ATTITUDES OF COACH AND PLAYER

The coach. At a high level of competitive basketball the accent is on winning. This emphasis has repercussions in the behaviour of coaches and players. Personality profiles of basketball coaches have been described by Ogilvie and Tutko (1971). One of the types described was the "hard nosed coach" who attempts to produce extremely fit, highly motivated, and totally controlled players. The search for success is pursued without many scruples. Training methods are utilised which attempt to develop the traits the coach desires in his team. To develop toughness and controlled aggression practices are devised to highlight physical contact situations. In practices contact beyond the constraints of the rules is encouraged. The following practices illustrate such attitudes:—

(a) "War". describes the practice used by the 1960 Belgian National Coach to promote aggression in contesting rebounds and tolerance to physical contact. In this practice the ball is tossed at the basket by the coach to initiate the play, underneath which a group of players are assembled. Each player attempts to gain possession of the ball and score while the others prevent his doing so. Play is continuous, rules concerning travelling and dribbling violations are not enforced, and physical contact is allowed. The practices at times become so aggressive that the coach has to part players whose tempers run high.

(b) "One on one" practice, a dribbling attacker attempts to go past a defender and score, an exceedingly common occurrence in competition. The coach places an emphasis on the attacker "taking his opponent on", and the defender is allowed more than normally permissible contact and provides a strong physical challenge.

(c) Conditioned practices ensure that a team when scrimmaging plays the game in the extremely aggressive fashion, a coach may make additional rules or conditions.

(d) "Punishment" maintains motivation of players in training; if players or teams do not maintain certain standards they receive punishment in the form of extra physical work, or in being withdrawn from scrimmages for a period. During the practices described more injuries may occur than in competitive match-play as the training period is longer and there is a greater incidence of contact between players.

The players. Players recently injured or who are recovering from injury are anxious to play, either to maintain or regain their position in the team. Such players may attempt to conceal the extent of their injuries. Additionally the "hard" approach by the coach produces an unsympathetic attitude to injuries on his part. This attitude may be replicated in the non-injured players. It is not unusual for a player to play through a full competitive season with a recurring injury. Playing might be the reason for the recurrence. Athletes learn to live with such injuries and it may be that they are willing to pay the price of a deteriorating condition for the current self-fulfilment the game can bring.

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INJURIES IN BADMINTON*

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Physiological studies have lead to the classification of badminton as moderate activity. Shephard (1971) cites a value of 6.3 kcal/min as the energy demands of this game while Yamaoka (1965) obtained a level of oxygen consumption 6.6 times the resting metabolism in singles play. It is likely that the level competitive badminton players play and practise exceeds the level found by these investigators using University students as subjects. Additionally work is intermittent, interspersing high intensity activity with short rest pauses. The activity of the game involves abrupt jerking movements and staccato footwork to cover a singles court area of 20' x 17' before the shuttle hits the floor. Another factor which adds to the physical demands imposed by badminton is that strokes are often played from extreme postural orientations. Though stress is induced in a number of sites, the main problem areas are the legs, and in the playing arm and shoulder. It is essential to increase strength and mobility both to protect from injury and to enhance performance.

*This material was presented as a demonstration on court.