

SECTION 1: MOST COMMON TYPES OF SOCCER INJURIES AND THEIR TREATMENTS

Most prevalent injuries to soccer

There are three major types of injuries that are most common in soccer (Elite Athletes), these include:

1. Muscle strains (35 – 37 %), most commonly Hamstring and Groin strain (respectively 23% and 21%)
2. Ligament sprains (20 -21%), most commonly ankle sprain (the highest with 32%), Medial ligament rupture and Anterior Cruciate ligament rupture.
3. Contusions (16 – 24%)

A FIFA studied between the years 1998 – 2002 (both male and female athletes) concluded that the majority of incidence occurred in the following areas:

1. Ankle 17%
2. Thigh 16%
3. Head and Neck 15%
4. Lower leg 15%
5. Knee 12%

Why these injuries occur the most!

- Foul play; 69% of injuries are caused by foul play (Fuller Research, 2004), this mainly cause sprains and strains to the lower leg of the athlete, due to the rough play, and “miss” attempts of kick the ball.
- Tackling; A FIFA study in 2004 obtained the result, that if an athlete was found to be tackled from the side, it was twice as likely to require post match medical attention. Tackles with risk to the player mainly centred two-footed injuries such as contusions.
- Previous Injuries; That over time become chronic injuries or further affect the same area. It is important for an athlete to fully recover, because if he/she does not, it is more likely that they will get injured once again.

Muscle Strains

- **Hamstring**

Can be both direct and indirect, soft tissue injury. Injury Management:

1. Rest: Stop player from continuing to play and rest the injured limb.
2. Ice: Apply ice to the affected area, 20 mins every 2 hours for the next 48 – 72 hours. Do not forget to take into consideration the athlete's tolerance to ice!
3. Compression: Apply compression bandage.
4. Elevation: Elevate limb above heart level.
5. Referral.
6. This treatment needs to continue for the next 48 – 72 hours.
7. After the first 72 hours obtain a referral from a qualified professional and start a comprehensive rehab program for the athlete.

- **Groin**

Can be both direct and indirect, soft tissue injury. Injury management:

1. RICER as above.
2. Exercise rehab when given the all clear must include, PNF for hip rehabilitation and muscle stimulation, this slowly begins to re-function the groin area.

- **Muscle strains**

Are most prevalent in soccer because:

1. Inadequate warm up.
2. Foul play
3. Tackle
4. Running at a rapid degree and then changing direction

Ligament Sprains

- **Ankle sprain**

Can be both direct and indirect soft tissue injury. Injury management:

1. Rest: Stop player from continuing to play and rest the injured limb.
2. Ice: Apply ice to the affected area, 20 mins every 2 hours for the next 48 – 72 hours. Do not forget to take into consideration the athlete's tolerance to ice!
3. Compression: Apply compression bandage
4. Elevation: Elevate limb above heart level.
5. If second or third degree sprain much immobilise and seek immediate medical attention.
6. Rehab program after given the all clear, should consist of balance activities and flexibility exercises.

- **Ankle sprains**

Are most prevalent because of many reasons such as:

1. Lack of warming up
2. Inadequate footwear
3. Uneven ground
4. Foul play
5. Previous history of an ankle sprain

Contusions

- Direct soft tissue injury.
- Injury management: Raise injured area, ice (wrapped in a towel) for twenty minutes every two hours, for the next 48 -72 hours.
- Contusions are most prevalent in soccer because of the high chances of collision with another player or the equipment.

SECTION 2: PREVENTION MEASURES

Specific safety Rules to ensure Athletes safety.

- All fields must be inspected by a coach/trainer or ground manager before every practice and every game. This will insure no unexpected injuries due to an inadequate playing field. Things that should be looked out for include:
 - Holes (uneven ground), sprinkler heads
 - Sticks, rock and sharp objects
 - Excessive mud in a specific playing area
- All players participating in the games must wear properly-sized shin guards; This minimises injury to the leg, as it softens the blow when players collide with the ball or each other.
- Soccer shoes may not have metal cleats, nor a cleat at the very front tip of the shoe. This rule is devised to minimise further injury to the player when he or she collides with one another (metal will make the injury MUCH, MUCH, WORSE!)
- No jewellery of any kind such as necklaces and rings, may be worn during any game or practice, this is because the accessory piece may get caught onto another player and injure them.
- The use of Yellow/Red cards and free kicks, when a player commits a foul. This rule is imposed to minimise and prevent fouls in the game, which ultimately contribute to soccer injuries.

Prevention strategies

1. Off field Prevention

- Pitch or field; Most fatal soccer injuries occur because of a collision with the goalpost, therefore appropriate padding minimises this injury. The field must also be inspected by a ground manager to ensure the field is clear of any unwanted catalysts which can cause injuries.
- Equipment; such as shin guards, mouth guards and head protection (if needed, light weight football boots (no metals studs). These allow the Athlete to reduce the risk of injury, while still maintaining optimum performance.
- Fitness level; An athlete must always be at their optimum performance levels to support and allow the body to work without injuring itself easily.
- Medical screening or profiling; which aims to recognise any serious injuries in the early phases of the condition and it allows training programs to be tailored to the athletes needs, which increases their game play and in turn minimises their injury.
- Prevention Awareness program; which teach athletes to differentiate between different types of injuries and how they can be minimised - A research from FIFA, in 2005, studied 14 teams (of equal ability), in which 7 took part in prevention program, and the other 7 did not. The incidence of injuries in the group that took part in the prevention program was 21% lower than that of the one that did not take part.

2. Warm-up

Warming up allows the athletes body to prepare for the task ahead. Research suggests that due to sufficient warm up, coordination is enhanced, and therefore the individual minimises the risk factor of “clumsy” mistakes which lead to injuries. Warm up also increases oxygen reserves for muscles, which will assist the athlete in quick bursts of movement needed in the games without injury.

3. Nutrition

An athlete cannot be in top condition without having sufficient amounts of essential nutrients, this allows the athletes body to function at an optimum level and also allows the body to repair itself more efficiently. Hydration is VERY important, one must make sure that the athlete is always hydrated, to minimise the risk of fatigue.

4. Environmental concerns

- Problems caused by Heat; Can cause heat stroke, heat cramps and heat exhaustion and Air pollution. This issues are dismissed by sports administrators who choose a field which is least likely to cause any issues.

5. Policies & Rules

Major sporting associations such as FIFA and the Olympics are constantly moulding and changing rules and policies to ensure maximum safety for athletes.

Section 3: Further rules and policies

- To prevent ankle injuries such as ankle sprain an athlete could wear high top shoes, which will further protect the ankle area.
- A shoe design that might reduce the risk of knee and lower leg injuries, possibly something with a cleat which will allow the leg to pivot when force is applied.
- Enforce strict but fair rules on players who continuously commit fouls, such as not allowing the athlete to play next game.
- Pad the goal posts with a highly absorbent sponge type material, which will minimise the blow, when in contact with an athlete.
- Make sure EVERY athlete who plays soccer at an elite level has been part of a prevention awareness program, Coaches should particularly be aware of the ways injuries can be prevented or minimised (Both for elite or leisure).
- Muscle strain injuries can be reduced by increased effectiveness in training methods, such as strength, power and speed.
- Additional referees should be hired to see the field more clearly – this will allow them to catch fouls easier and to prevent injuries earlier.