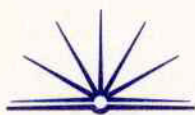


(a) Direct sports injuries are those injuries that occur at the point of contact (e.g. - a boxer is hit in the nose & his/her nasal bones break). They can be both hard tissue (fractures) or soft tissue (bruises). Indirect sports injuries are different because they occur at a distance from the point of contact (e.g. - a gymnast falls on their outstretched hand & breaks their collarbone). These injuries can be a result of an intrinsic force (muscle contraction) or stress being placed on a pressure point that is some distance from the actual impact.

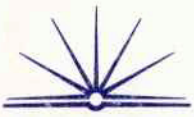
(b) Physical preparation is essential in preventing injury & being mentally & physically prepared for their (athletes) specific event. Sports injuries are a huge cost to the community (1 million Australians injured each year costing \$1 billion) & cause considerable stress to the athletes involved reducing the amount of time spent playing/training. Aspects of physical prevention vital for any athlete are:

- Skill & Technique - athletes with a higher skill level are at less risk of injury due to their better



co-ordination, kinaesthetic sense etc.

- **safe sporting movements** - In training & competition safe technique is essential in reducing risk of injury (e.g. - Hyperextension in a golf swing is not an appropriate/safe action).
- **Flexibility** - By consistently stretching an athlete improves their Range of Movement around the joint & can reduce the chance of soft tissue injury. It can enhance performance in some sports too (e.g. - gymnastics)
- **Strength** - vital in gaining a competitive advantage & greater muscle mass strengthens the bodies ability to sustain the stresses of their event (e.g. cycling, sprinting)
- **endurance** - prolongs the effects of muscle fatigue & hence serious injury (hyperventilation, fainting & over-exertion)
- **Individual participants needs** - a pre-preparation screening program will determine any athletes individual characteristics that could heighten the risk of injury (e.g. - previous injuries, disabilities, family history, previous exercise history, motivation level) - delivers ~~an~~ a rewarding program that will reduce risk of injury.
- **Warm-up, stretching & cool-down** - considered an essential part of any physical preparation as in the warm-up the

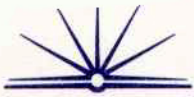


body & mind are prepared, muscles used in activity are stimulated preventing/reducing risk of soft-tissue damage. Stretching prepares the muscles whilst the cool-down promotes a full recovery & prevents blood pooling.

All of the factors are essential in physical preparation & contribute to reducing the risk of injury.

(c) An athlete returning to play after a serious injury may be pressured to do so, both intrinsically (boredom, fear of losing spot in team) or extrinsically (sponsors, peers, fans, fellow teammates, coach) & this can result in a hasty return to play without regard to specific policies & procedures which are in place in most sporting organisations to ensure a fast but full recovery, reduced risk of re-injury. These regulatory procedures are:

- Returning to play only after complete skill level has been reached (same as prior to injury)
- Both sides of the body move/operate in the same manner
- player can participate in full length training sessions completing a range of skills pertaining to their sport

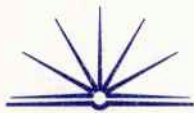


(e.g. Soccer player - dodging, weaving, trapping, passing, shooting, two on two practice & complete cardiovascular recovery)

- passing of fitness tests that ensure full flexibility, endurance, speed & strength have returned.
- recommendation by club doctor/physician giving the all clear.

Upon actually making a return the player should be introduced into the lower grades & once they move back into the 1st division ranks, only play halves or quarters. Constant monitoring is necessary to ensure that re-injury does not occur & this is often done with more fitness tests.

These policies are only effective as the organisation implementing them & hence are subject to vested interests or subjectivity (e.g. - the coach leading into a major final may advise the club doctor to pass the athlete in the fitness test anyway). The rules & regulations must be strictly adhered to if the organisation is to appear ethical & supportive of its players, whose disposition is the most important despite what owners, sports administrators & sponsors might say. Other rules in place are those that refer to the individual players physical



& mental wellbeing (e.g. -taping, protective equipment & braces). This will ensure players returning have a higher confidence in their participation. Ultimately in promoting a safe environment for athletes they should be able to answer 'yes' to these questions:

- is the area free from ^{pain} injury?
- can you move freely on both sides of the body?

If the answers are no or unsure then a return to play should be prolonged. This of course can be subject to the player (themselves) wanting to make a quick return so careful judgement through appropriate skills tests, doctors recommendations & player comfort are ultimately effective collectively.