Ankle Sprain (ligament injury)

What is it?
An ankle ligament injury refers to a tearing of one or more of the ligaments on the inside, outside, or both sides of the ankle. There are a number of "bands" of the ligaments on each side that connect as stabilizers from the tibia (inside) or fibula (outside) to surrounding bones in the ankle that can be affected. Severity of a sprain and damage is usually graded 1-3.

What are the causes?
The ligaments are injured when they are stretched past a tearing point (sprained). This occurs most commonly with a forced rolling of the foot and ankle, often during a quick change in direction or unbalanced landing in sport. It can also be injured when forced into rolling by other players bodies or by stepping on an opponent's foot. The most common mechanism is a roll of the foot towards the inside that is associated with a sprain on the outside ligaments of the ankle. Less common is rolling of the foot outside, with associated inside ligament damage.

What are the symptoms?
There will be immediate pain on the outside or inside of the ankle with some people hearing an audible "pop" or "crack". There will usually be swelling (can be immediate or after some time) and a difficulty walking due to pain. Bruising can develop over a few days.

What should I do?
Immediately it is advised that you stop activity or sport to prevent further injury and minimise the damage already done. The RICE regime for soft tissue injuries should be commenced and maintained for the first 48 hrs (note that this is the most important time for the management of this injury)
***R**est*, involves ceasing activity and limiting the amount of weight through the affected side.
***I**ce*, applied to the area crushed in a wet towel for 15-20 minutes, every 1-2 hrs.
***C**ompression*, with a firm (but not tight) elastic bandage around the ankle.
***E**levation*, comfortably above the level of the heart.
Seeking assessment from a physiotherapist should be undertaken in the first week if possible to treat and plan a return to activity safely.

What shouldn't I do?
Return to activity or engage in any activity that will increase blood flow or inflammation. Although inflammation is needed for tissue healing too much can be detrimental to the process and lengthen recovery. Other inflammatory contributors that should be avoided are heat (hot showers, heat packs etc), massage and alcohol.

Could there be any long term effects?
There is a significant risk of re-injury if the proper rehabilitation is not performed. Depending on the severity of the sprain there will likely be a degree of permanent instability in the ankle joint. Strengthening, balance and proprioceptive training exercises are paramount to having a stable ankle in this case to prevent long term problems and reoccurrence.

Physiotherapy treatment and management
Following initial RICE management, treatment focus is on restoring range of movement, and strength and reducing stiffness. This can involve a number of treatment methods including soft tissue release, ligament frictions, joint mobilizations etc. Advice and technique for strapping or braces can be provided to ensure protection of the healing tissues. Specific functional or sport based exercises can be tailored to each individual as well as proprioceptive and balance training exercises.

References:
Brukner and Kahn (2011) Clinical Sports Medicine 3rd Ed, McGraw-Hill Professional, North Ryde NSW.

To arrange an appointment:

- call our reception staff on (**08) 82638844**
- email info@robertsphysiotherapy.com.au