

## **Whiplash**

Whiplash occurs when the soft tissue in the spine and surrounding area is stretched and strained after the head is thrown forward in a sudden, forceful jerk. The injury most commonly occurs in car crashes involving sudden deceleration, but the injury can also occur in other strenuous physical activities such as diving.

If you suffer a whiplash injury as the result of a car accident, the type of damage to the tissues will depend on whether your car was hit from the front or from the back. If it was a head-on impact, your body will have been stopped suddenly while your head continued to move forward. The result of this is that when your head was prevented from moving forward by your neck and shoulders, the muscles, soft tissue and ligaments at the back of the neck would have been pulled in the movement, causing damage to their structures. If however it was a rear-end collision, the head and neck would have been thrown back in relation to the body, excessively stretching the tissue and muscles at the front of the neck. The vertebrae in the neck can also be compressed and damaged by this mechanism of injury.

Whiplash can be severe, and cause damage to the vertebrae, in the form of fracture and dislocation, and to the nerves, spinal discs, spinal cord and blood vessels. All whiplash injuries should be seen by a doctor to ensure that no serious injury has been sustained.

### **Signs and Symptoms**

After the injury, it is likely that the neck, back and shoulder areas will be sore and stiff. Headaches are a frequent complaint. These symptoms appear within the first couple of days after the accident and usually pass within a few weeks or less.

It is also possible to experience dizziness, mild hearing loss and altered sensation in your face. These usually fade in a few days. If your signs and symptoms become severe or you experience any of the following, it is advisable to return to your Accident and Emergency department:

- memory loss
- periods of unconsciousness
- severe pains in the back of the head
- pins and needles in the shoulders and arms
- a sensation of heaviness in the arms

### **Treatment**

A soft-collar is often used immediately after the injury to help protect the injured structures in the neck from further strain. It is recommended that after an initial period of rest that you resume your normal activities as soon as possible, as extended bed rest can cause the injured structures to become more stiff and painful.

In the first few days following a whiplash injury it is helpful to ice the affected area, which can be done in a lying position with your neck supported. An ice pack or bag of frozen peas wrapped in a towel can be applied every few hours for 10-15 minutes to help calm inflammation in the area, and will also bring pain relief.

Non-steroidal anti-inflammatory drugs (NSAIDs), such as Ibuprofen, are often prescribed to help decrease the pain and swelling.

Your physiotherapist will treat and rehabilitate the injured structures once the inflammation has started to go down. This may include gentle stretching exercises to start with to regain movement and overcome stiffness, and gradually a programme to regain normal strength and function of the injured area is introduced. Electrotherapy is also sometimes used in treatment sessions to promote healing and reduce pain.