Neck Pain

For information on all types of injuries visit:
http://www.cssphysio.com.au/Doctors/fordoctors.html

Physiotherapy for Non-traumatic Neck Pain

Neck pain is extremely common – affecting up to 70% of people at some stage of their lives, and up to 40% of people in any one year. It is second only to low back pain in annual workers compensation costs. Up to 60% of sufferers will have some degree of recurrence or ongoing pain*. Some neck pain is due to a traumatic cause (notably whiplash). However the majority has an insidious onset.

The upper cervical levels – O-C1 to C2/3 will commonly refer pain to the head, while the levels below will frequently refer pain into the scapular region or arm. This is because these areas have the same segmental innervation as the involved cervical levels, and convergence of afferent inputs to the 2nd order neurons results in perception of pain remote to the source*.

Non-traumatic neck pain may arise suddenly – often with the patient waking in pain, or feeling acute discomfort after a sudden neck movement. The best known example is the 'acute wry neck', which results in acute pain and deformity, and loss of movement toward the direction of pain. Most other forms of neck pain are more subtle. Gradual onset of pain and stiffness is common, as the patient compensates for loss of neck movement through the trunk, and often doesn't notice the stiffness until it becomes quite marked.

The following are the common presentations of non-traumatic neck pain that I see clinically:

1. Postural pain. These patients will generally be younger, and work in sedentary occupations or be undertaking education. The pain will have been building up over time, and will often affect the neck, upper shoulders and upper thoracic regions. There is usually no loss of neck or trunk movement. The pain will build in intensity during the day, settle after a night's rest, and be better with movement. However over time, the pain may become more persistent, and it may be more difficult for the patient to identify aggravating and easing factors.

   Treatment: This is often the most challenging neck pain to treat, as success depends largely on patient self-help. Even when the patient is compliant, results are often not quick, and symptoms will fluctuate relative to daily changes in workload, stress, and duration of symptoms. Management will include:
   - Education, including use of photographing the patient's posture to provide feedback.
   - Massage.
   - Postural correction including neck &/or shoulder retraction and possibly attention to lumbar spine position changes.
   - Thoracic mobilisation – there will often be accompanying mid-back stiffness in muscles &/or joints.
   - Techniques such as 'body scanning' to help the patient identify areas of tension and learn to self-release.
2. Zygoapophyseal joint related pain. This is the most common neck pain I treat. It can be acute or persistent. There will often be a corresponding postural component. The pain

will often be unilateral, with the area of symptoms partly over the upper to mid-cervical region. Referral to the medial scapula or upper trapezius is also common. There will often be restriction of cervical rotation to one or both sides. Palpation will reveal pain and stiffness over one, and sometimes two or more facet joints. The most common source of symptoms is upper cervical, as this is the region of the neck put under most stress from daily postures and movements.

Treatment:

- Mobilisation. This is an effective treatment. Even when stiffness has been present for some time, mobilisation to the involved joint(s) will often result in early improvement in range.
- Thoracic mobilisation
- Massage. There will often be ipsilateral muscle tension or tightness. This generally responds to 'massage with movement' where massage is performed with active movement into the painful or restricted direction.
- Postural correction as necessary.

3. Acute wry neck. Also see http://www.cssphysio.com.au/pdfs/Wry-Neckpdf.pdf

   This condition is most common in teenagers and young adult females. It will often be recurrent. It results from acute joint locking, possibly due to an extra-articular 'meniscoid' becoming trapped in the joint. There will be accompanying muscle spasm.

   Treatment:

   - Will respond to a specific form of mobilisation – unilateral glides across the plane of the joint.
   - Ice
   - Massage
   - Strengthening exercises

4. Cervicogenic headache. This can arise due to referral from upper cervical joints and/or the surrounding soft tissues. Referral can be into any part of the head including the eyes, but generally not the rest of facial region. Sometimes, the only way to confirm that the headache is neck-related is to demonstrate this through successful treatment. It may be possible to reproduce the head pain with palpation techniques at the involved levels.

   Treatment:

   - Sustained pressure / trigger point techniques to upper cervical joints &/or soft tissues
   - Releases to the upper cervical extensors including trapezius.

5. Radiculopathy. Radicular pain presentations will generally lead to a patient seeking early treatment. If the pain is constant and very irritable, physiotherapy may be ineffective. However if the patient can find positions which afford some relief, treatment is more likely to help.

   Treatment:

   - Manual or mechanical traction
   - Massage to cervical extensors, trapezius, levator scapula, and scaleni's
   - Mobilisation to the upper thoracic levels including the upper rib joints.
   - Gentle deep neck flexor strengthening as tolerated.

***Reference**: Jull, G et al (2008). Whiplash, Headaches and Neck Pain – Research-based directions for physical therapists. Elsevier.

For information for doctors on physiotherapy management of all types of injuries visit:
http://www.cssphysio.com.au/Doctors/fordoctors.html

Information for patients is at:
http://www.cssphysio.com.au/forpatients.html

Concord Sport & Spine Physiotherapy
202 Concord Road
Concord West, NSW 2138
Sydney, Australia.
Ph (02) 9736 1092
Email: info@cssphysio.com.au
Web: www.cssphysio.com.au