The 10 top tips on assessing and treating neck pain
by Shaun O’Leary

Shaun O’Leary is a specialist musculoskeletal clinician and widely published researcher on the cervical spine. He delivers an evening lecture on assessment and exercises for neck pain and a one day course which adds the practical aspects of assessing and treating neck pain.

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1. Be specific when addressing postural issues of the neck, forward head postures and flexed neck postures result in very different physical challenges to the neck and different emphases on correction.

Postural neck pain presentations don’t all come in the one package and neither should the strategies to correct them. An interesting thought experiment is, if I say the term sports car, what do you think of, a Formula one car, a Ferrari, an Aston Martin, a go kart, it might even be a model of a sports car! Words that seemingly transfer meaning may mean something completely different. When someone says sitting, how do they sit, at what height, what position is their neck in? Get them to show you! Just 30 additional clarifying seconds in the patient interview and 30 in the physical examination could save you a lot of time in misdirected effort. By showing attention to this you will connect with the patient and you will make sure that you are not missing important information about their problem. Which brings me to the second point...,

2. Give due consideration to the shoulder girdle and thoracic spine.

An important question when evaluating the role of the shoulder girdle in a patient’s neck pain is ‘What aggravates your pain the most, activities that involve positions or movements of your neck, or positions and movements of your arm?’ There are many ways poor shoulder girdle function can upset the neck. Some patients just don’t seem to get better if problems with the shoulder girdle are not addressed.

The thoracic spine is the middle child of the spinal family. Like all middle children it can be problematic often bringing pain to its big lumbar brother and its little cervical sister. Give due consideration to the thoracic spine when managing neck pain, the sagittal orientation of the cervicothoracic junction will largely dictate the resulting angle and loading of the cervical lordosis and abnormal thoracic mobility has been implicated in conditions of abnormal loading and restricted motion of the cervical spine.

3. Exercises of the craniocervical and typical cervical regions can be utilised to target different muscular regions of the neck.

There are muscles that belong to the craniocervical region, there are muscles that belong to the typical cervical region, and there are muscles that belong to both. This is great because we can use this knowledge to analyse movement disorders of the neck and target specific muscle groups with exercise.

To view this information go to www.physiouk.co.uk/neck
4. Not all neck muscles are made equal.

Neck muscles come in all shapes and sizes, what may be challenging for one may not be challenging for another. For example the extensor muscles of the neck are nearly twice as strong as the flexors which is why it’s much easier to lift your head off the bed when on your stomach then when on your back. Consequently some muscles will require more challenging tasks to test/train their performance than others.

5. Remember when observing neck motion, the craniocervical and typical cervical regions can move in different directions to each other.

Although motion of the craniocervical and typical cervical regions are complimentary during normal movement, they can function independently of one another. The craniocervical region alone accounts for 1/3 of the total cervical spine motion in the sagittal plane (flexion and extension) and ½ of motion in the transverse plane (rotation). Pretty impressive for 2 joints! Of additional importance for rehabilitation, the orientation of the craniocervical region has a big impact on the pattern of muscle usage when performing neck exercises. Learn your biomechanics and apply them within your clinical reasoning to build a clear picture of joint and muscle use as your patient moves.

6. Impairments in neck muscle function are multifactorial. The emphasis of rehabilitation will depend on the individual patients needs.

We are all taught this at university, it’s obvious when you think of it. However, the measure of what to address in which patient is a skill. As science adds more and more to our understanding it may seem that clinical practice is becoming more difficult. However, never underestimate the power of simple reasoning. Where is the patient now in terms of their understanding and function and where do they need to be? Asking them this in simple terms such as what they think is wrong and what they need to get them better, may give you a large hook on which to start your treatment.

7. Changes in physical structure and behaviour of the cervical muscles are evident in mechanical neck pain disorders and this impacts their function.

With the ever growing evidence base of impairments found in neck muscles and the equally expanding range of technologies used to measure them it can all sometimes seem perplexing. Remember, put simply, some studies have shown changes in the physical structure of muscles (morphology and composition), others have shown changes in the behaviour of muscles (coordination), these help explain other findings that have shown changes in the physical performance of muscles (capacity to generate and sustain force) (O’Leary and Jull et al 2007) appropriate for function. Tests that assess the change in function of these muscles may serve as a powerful clinical treatment and rehabilitation tools that are accessible to all clinicians.

8. The combination of exercise and manual therapy has the strongest evidence of all conservative interventions for the treatment of neck pain.

A Cochrane report (Gross 2005), and a separate article in the journal of Rheumatology concluded that this combination of modalities had the strongest effect with respect to pain, function and global perceived effect. The foundation for correct technical application of these modalities is good handling and a sound knowledge of regional functional anatomy. However, the foundation for correct practical application of these modalities is good clinical reasoning and judicious reassessment. It is important when treating a patient to keep asking yourself if both these modalities are appropriate for this patient and what is the best way to combine these modalities for this patient? Always be on the look out for this.
9. No single test is conclusive or all encompassing in the assessment of cervical muscle function.

Any test we perform, if performed well, gives us important information. However, much like being blindfolded and only being fed the jam filling from a cake, it doesn’t tell you much about the rest of the cake and you would be hard pressed to guess it was a cake in the first place! In short you need more information to build a clinical picture. Clinicians rely on a battery of clinical tests including both quantifiable and observational tests to gain information concerning the patient’s cervical muscle function. Having an up to date knowledge of tests through ongoing training and the literature and through experimentation within your own practice is vital. Remember that the research is often conducted on the back of clinical innovation and observation.

10. A patient’s emotional health may not only affect their neck pain experience but may also affect their postural habits and subsequent strain to their neck.

Whilst we are not psychologists, coaching a patient to establish links with the various situations they find themselves in through the course of a day may provide valuable information for management. Our psychological and physical well being is influenced by our cognitive processes. Having a healthy appreciation and communication of this may allow a patient to better understand, and use to their advantage, the link between their cognitive processes and physical behaviours such as postural control and movement.

Feedback from Shaun’s previous course

- The speaker was BRILLIANT. Enthusiastic and extremely knowledgeable
- People working specifically with neck problems sufferers would find it especially helpful, e.g. clinicians, physiotherapists, and also scientists, college, university lecturers of the same or similar field.
- EXCELLENT refresher on anatomy and good suggestions for assessment and exercise progression
- Provides a good base and clinical reasoning framework to address chronic neck conditions
- Very good lecture. Excellent speaker, VERY KNOWLEDGEABLE AND ENGAGING

Neck courses with Shaun O’Leary

If you are interested in expanding on the material discussed and learning a lot more about assessing and treating patients with chronic neck pain some further information is below.

Effective and Efficient Exercise Prescription for Neck Pain Evening Lecture with Shaun O’Leary

19th March 2012: Coventry
20th March 2012: Nottingham
21st March 2012: London

See www.physiouk.co.uk/shaun
References
