Neck pain is second only to low back pain as the most common musculoskeletal disorder in population surveys and in primary care. Depending on the case definition of “neck pain,” from 12 to over 70% of the population experiences neck pain each year. Segmental dysfunction and cervical sprain/strain are the first and second most common diagnoses provided by Chiropractic Physicians in CHP.

While most individuals with acute neck pain do not seek health care, those that do account for a disproportionate amount of health care costs. Much neck pain is not attributable to a specific disease or disorder and is labeled as muscular, mechanical, or postural neck pain. Despite decades of research and posturing to explain chronic neck pain on the basis of a specific disease or injury, and despite increasingly sophisticated radiological assessment, little advance has been made in achieving a specific structural diagnosis.

### Subjective Findings and History:
- Risk factors for neck pain include age, gender, and heredity.
- Modifiable risk factors include tobacco exposure (smoking and second hand), low social support at work, high quantitative work demands, sedentary, precision and repetitive work
- Macro trauma: Onset of pain and paraspinal muscle spasm begins either immediately after the injury or gradually over the next 24 hours
- Micro trauma: Repetitive traumatic events not singularly capable of producing injury
- Local pain, sometimes accompanied by referred pain, diffuse (scleratogenous pain distribution)
- Loss of flexibility
- Pain is usually relieved by rest and aggravated by motion

### Objective Findings:
- The validity of most commonly used objective tests is lacking
- There is support for subjective self-report assessment in monitoring the patient’s course and response to treatment
- Postural evaluation reveals asymmetry, misalignment or decrease of normal spinal curvature
- Decrease/loss of normal spinal ROM
- Palpation: Segmental joint dysfunction/subluxation, tenderness with pressure over involved tissues, muscle spasm or tautness of paravertebral muscles, MFTPs.
- Orthopedic and neurological examination directed at differentiating neurogenic from other sources of pain; absence of nerve compression signs (e.g. absence of muscle weakness) or orthopedic tests MAY reproduce the pain (e.g. foraminal compression and other tests that cause spinal motion may increase neck pain)
- Radiographic examination: depending on age and history of prior episodes (see radiographic guidelines). Note: There is no evidence that common degenerative changes in the cervical spine are a risk factor for neck pain.

### Assessment:
The clinical impression should indicate the specific anatomical structures involved and clinically correlate them with the mechanism of injury, history, subjective complaints, and objective findings.

The Neck Pain Task Force recommends a 4-grade classification system of neck pain severity.
- Grade I neck pain: No signs or symptoms suggestive of major structural pathology and no or minor
interference with activities of daily living; will likely respond to minimal intervention such as reassurance and pain control; does not require intensive investigations or ongoing treatment.

- Grade II neck pain: No signs or symptoms of major structural pathology, but major interference with activities of daily living; requires pain relief and early activation/intervention aimed at preventing long-term disability.
- Grade III neck pain: No signs or symptoms of major structural pathology, but presence of neurologic signs such as decreased deep tendon reflexes, weakness, and/or sensory deficits; might require investigation and, occasionally more invasive treatments.
- Grade IV neck pain: Signs or symptoms of major structural pathology, such as fracture, myelopathy, neoplasm, or systemic disease; requires prompt investigation and treatment.

Plan:
A number of non-surgical treatments appear to be more beneficial than usual care, sham, or alternative interventions but none of the active treatments were clearly superior to any other in the short or long term. Educational videos, mobilization, manual therapy, exercises, low-level laser therapy (LLLT), and perhaps acupuncture appeared to have some benefit. Interventions that focus on regaining function and returning to work as soon as possible are relatively more effective than interventions that do not have such a focus.

Passive Care:
- Spinal manipulation
- Physical Therapy Modalities, especially LLLT
- Medications: Analgesics, NSAIDS
- Supplementation
- Braces/supports.

Active Care:
- Rest from inciting activities
- Active exercises/stretches for mobility and strength
- Ice/heat application at home
- Posture training, ergonomic evaluation, educational interventions
- Activity/work restrictions, if appropriate.

Length of Treatment:
- Estimated duration of care: 1-6 weeks
- Evaluate progress on an on-going basis
- Risk factors for chronicity: Significant trauma, co-morbidity (degenerative disc disease, segmental instability, osteoporosis, spine deformity), age, socio-economic factors.

Vertebrobasilar Stroke Risk:
There was an association between chiropractic services and subsequent vertebrobasilar artery stroke in persons under 45 years of age. But a similar association was also observed among patients receiving general practitioner services. This is likely explained by patients with vertebrobasilar artery dissection-related neck pain or headache seeking care from DCs and MDs before having their stroke and not because of a manipulation.

Referral Criteria:
- Referral to an appropriate specialist may be appropriate after 4-6 weeks of care without symptomatic or functional improvement or upon onset of (progressive) neurologic deficit

Practitioner Resources:

Patient Resources:

Spine-health.com publishes original, award-winning articles written for patients by over 80 physician authors and peer-reviewed by a 23 member Medical Advisory Board. This trusted, independent site is supported by hundreds of physician members and visited by millions of patients and their physicians.
http://www.spine-health.com/pain/neck-pain-0?page=1

MedlinePlus will direct you to information to help answer health questions. MedlinePlus brings together authoritative information from NLM, the National Institutes of Health (NIH), and other government agencies and health-related organizations.

The Evidence:


Manipulation and mobilization for mechanical neck disorders (Cochrane Review)
From The Cochrane Library, Issue 1, 2005. Chichester, UK: John Wiley & Sons, Ltd. All rights reserved.
Manipulation and mobilization for mechanical neck disorders. Gross AR, Hoving JL, Haines TA, Goldsmith CH, Kay T, Aker P,
• http://www.cochrane.org/cochrane/revabstr/AB004249.htm (text/html) Mon, 24 Jan 2005

Gordon McMorland, DC, Esther Suter, PhD Chiropractic management of mechanical neck and low-back pain: A retrospective, outcome-based analysis. Journal of Manipulative and Physiological Therapeutics June 2000 • Volume 23 • Number 5 • p307 to p311


Clinical Pathway Feedback
CHP desires to keep our clinical pathways customarily updated. If you wish to provide additional input, please click on the email address listed below and identify which clinical pathway you are referencing. Thank you for taking the time to give us your comments.

Chuck Simpson, DC, CHP Medical Director: csimpson@chpgroup.com