

# Neck pain (cervical syndrome)

## Non-specific form [1] (approx. 90% of cases)

A

Persistently incorrect posture, faulty biomechanical stress

Fluctuation between contraction and relaxation of muscles is disturbed

Muscle tension



Pain can radiate in an imprecisely defined way into the back of the head, forehead, neck, shoulders and upper arms.

Wear / damage to vertebral joints

Instability

Muscle tension

## Irritation of the nerve root [2] (1)

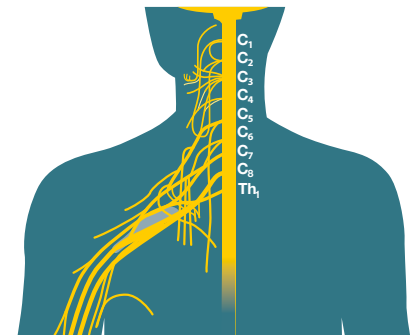
B

Prolapsed disc or narrowed spinal canal

Pain due to irritation of the nerve root

Perception of pain sharply defined along the nerve pathways

In some cases neurological deficits (abnormal sensation, numbness, malfunction of muscles)



## Treatment [1, 2, 3]

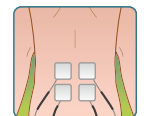
C



Painkillers and where appropriate muscle relaxants, where appropriate infiltration of a local anaesthetic



Physiotherapy and maintenance of normal activity



TENS

**In case of persistent symptoms in addition:**



Psychological pain therapy, e.g. pain management training and relaxation techniques

**In case of irritation of the nerve roots in addition:**



Injection of a corticosteroid close to the nerve exit points [4]

# Neck pain (cervical syndrome)

## A Non-specific form [1]

90% of cervical pain is non-specific. It usually develops slowly through persistent (unilateral) incorrect biomechanical stress.

Failure to take breaks from work and lack of compensating physical exercise lead to impaired balance between contraction and relaxation, and thence to painful muscle tension.

Wear of the intervertebral discs and vertebral joints (due to lack of movement or age) can lead to pain, typically due to muscle tension.

The pain may radiate in a poorly defined way into the back of the head, forehead, neck, shoulders and upper arm (pseudo-radicular form)

## B Irritation of the nerve roots [2]

Irritation of the nerve roots causes the radicular form of nerve pain; for example, as a result of wear processes leading to disc prolapse or the development of bone spurs.

This form of neck pain is perceived in a sharply defined way along the nerve pathways, and neurological deficits may occur (abnormal sensations, numbness, malfunction of the muscles).

## C Treatment [1, 2, 3]

Treatment for the non-specific form consists of maintaining normal activity and physiotherapy, taking painkillers (non-opioids, or where appropriate centrally acting analgesics such as opioids, and muscle relaxants) and where appropriate transcutaneous electrical nerve stimulation (TENS). If the problem persists, infiltrations of a local anaesthetic may be appropriate.

Relaxation techniques and pain management training courses are recommended both for the treatment of chronic pain and to prevent its development.

Corticoid injections in the vicinity of the nerve exit points may be helpful in the radicular form [4].

[1] Belgian Health Care Knowledge Centre. KCE Reports 119C. Non-specific neck pain: diagnosis and treatment. 2009.

[2] Leonardi M, Boos N. Degenerative disorders of the cervical spine. In: Boos N, Aebi M (Eds). Spinal disorders: fundamentals of diagnosis and treatment. Philadelphia: Springer, 2008.

[3] National Institute for Health and Clinical Excellence (NICE). Nice Guidelines on Treatment of Neck Pain: Neck Pain- Non-Specific. Available at: [http://www.cks.nhs.uk/neck\\_pain\\_non\\_specific/management/scenario\\_diagnosis/view\\_full\\_scenario#-453181](http://www.cks.nhs.uk/neck_pain_non_specific/management/scenario_diagnosis/view_full_scenario#-453181). Accessed March 2013.

[4] Huston CW. Curr Rev Musculoskelet Med (2009) 2(1): 30- 42.