

Cervicogenic Headache

A cervicogenic headache is simply another name for a headache which originates from the neck. It is one of the most common types of headache and although this type of headache can occur at any age, it is most commonly seen in patients between the ages of 20 and 60.

Cervicogenic headaches are often called secondary headaches because they originate from a primary underlying neck disorder, frequently with nerve irritation. The good news is that by fixing your neck problem, your headache can be alleviated. Research has shown that upwards of 22% of all headaches seen clinically are cervicogenic.

The upper part of your neck consists of cervical vertebra which support the skull, and weight of your head, as well as being responsible for movements like flexing and extending your neck (looking up and down), as well as rotating your neck by looking left and right. Any dysfunction in the vertebral joints of the upper neck can limit the range of motion or fluidity of movement and result in nerve irritation. This could include the ligaments, tendons, and muscles that attach to the vertebra or even the cartilage discs between the vertebra. Commonly a history of neck injury, especially whiplash, is found in people who suffer from cervicogenic headaches; although a traumatic injury is not necessary to cause damage to the neck structures. Repetitive or sustained poor postures can over time, also 'damage' these structures.

The pain associated with this condition is an example of referred pain. This is where pain arises from a different source, in this case the neck. This occurs because the nerves that supply the upper neck also supply the skin overlying the head, forehead, jaw line, back of the eyes and ears. As a result, pain arising from structures of the upper neck or irritation of the nerves in this region, may refer pain to any of these regions, thereby causing a cervicogenic headache.

Your headache can also be referred pain from surrounding muscles of your upper neck, the front and back of your neck. These muscles commonly refer pain to the temples and side of the head. Muscle spasm, weak or overloaded muscles from sustained poor postures can result in them developing trigger points and referring pain to the head and face.

WHAT CAUSES THESE HEADACHES?

Cervicogenic headache typically occurs due to activities placing excessive stress on the upper joints of the neck. This may occur traumatically due to a specific incident (eg. whiplash or heavy lifting) or more commonly, due to repetitive or prolonged activities such as prolonged slouching, poor posture, lifting or carrying (especially in poor posture), excessive bending or twisting of the neck, working at a computer or activities using the arms in front of the body (eg. housework).

WHAT ARE THE SYMPTOMS?

It is important to diagnose this headache correctly and differentiate it from a migraine as treatment plans are different for different headaches.

Symptoms commonly include:

- Gradual onset of neck pain and headache during an activity that irritates the neck structures
- Constant dull ache, normally situated at the back of the head, although sometimes behind the eyes or temple region, and less commonly, on top of the head, forehead or ear region.
- Pain is usually felt on one side, but occasionally both sides of the head and face may be affected
- Pain that's made worse by neck movement or posture
- Neck pain, tenderness over the upper cervical joints
- Stiffness and difficulty turning the neck
- Pain, pins and needles or numbness may also be felt in the upper back, shoulders, arms or hands, although this is less common.
- Occasionally you may experience other symptoms, including: light-headedness, dizziness, nausea, tinnitus (ringing in the ears), decreased concentration, an inability to function normally, and sometimes depression.

Not everyone's neck will be sore or painful, but you can still experience cervicogenic headaches. It is important to remember that your neck joints may not be sore at rest or with general movements; but they may be tender to touch or painful when properly examined or when 'pushed' to the end of their range of movement by a physical therapist.

In rare cases, cervicogenic headache may be associated with nausea, vomiting, swelling on the same side as the pain, facial flushing, dizziness, sensitivity to noise, or sensitivity to light, blurring of vision, and difficulty in swallowing – these rare symptoms can



make it easy to confuse with a migraine or cluster type headache. We've created an additional self help guide with these resources, which can help you identify your type of headache and what can be done to help.

HOW ARE CERVICOGENIC HEADACHES DIAGNOSED?

A thorough examination from a physical therapist or doctor is usually sufficient to diagnose a cervicogenic headache. Unfortunately X-rays, CT scans and MRIs are not always diagnostic of a cervicogenic headache. You can suffer a cervicogenic headache with or without abnormal findings on X-rays or scans.

On examination, a physical therapist may find:

- ① Increased tightness and trigger points in neck and upper back/shoulder muscles
- ② Weakness of deep neck flexors
- ③ Increased or overactivity of the superficial neck flexors
- ④ Pain localised in the neck and occiput (base of the skull), which can spread to other areas in the head, such as the forehead, orbital region (eyes), temples, or ears, usually on one side
- ⑤ Pain starts or is aggravated by specific neck movements or sustained postures.
- ⑥ Resistance to, or limitation of, neck movements
- ⑦ Changes in neck muscle tone, like muscle spasm
- ⑧ Abnormal tenderness of neck musculature

HOW CAN PHYSICAL THERAPY HELP?

Although this type of headache may respond to medication including analgesics, anti-inflammatories, stronger opioid-based medication, even nerve blocking injections - these drugs usually treat the symptoms of the headache and not the primary underlying cause.

Unless the origin of the headache ie. the upper neck dysfunction, is treated and corrected, the headache will return in time. Physical therapy treatment will focus on the soft tissue and joint restrictions in the upper neck as well as areas like the front of the neck and upper back area. It may also involve some exercises to strengthen weak muscles and stretch tight muscles.

Treatment includes:

- ① Cervical spine (neck) manipulations and mobilisations
- ② Myofascial release (a type of deep massage) to release tight structures and muscles in spasm
- ③ Trigger point therapy to release restricted tight muscles
- ④ Strengthening exercises of the deep neck flexors and upper back muscles
- ⑤ Thoracic spine (upper back) mobilisation and manipulation
Posture correction and re-education of postural muscles
- ⑥ Treatments may include the use of electrotherapy for muscle release and pain relief as well as acupuncture or dry needling, postural taping or bracing

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WHAT TO EXPECT AFTER TREATMENT

Most patients with this condition heal quickly and have a full recovery with appropriate physical therapy treatment. Recovery time varies from patient to patient depending on compliance with treatment and severity of injury. With ideal treatment, patients with minor cases of cervicogenic headache may be pain free in as little as a couple of days following a couple of treatments, although sometimes it may take 2 – 3 weeks. In severe or chronic cases a full recovery may take weeks to months. Remember to prevent the headaches from returning and your neck and muscles from relapsing into their 'bad habits' continued management must include exercises and correction of contributing factors listed below.

WHAT THINGS MAY BE CONTRIBUTING TO THE HEADACHES?

There are several factors which can predispose patients to developing a cervicogenic headache. These need to be assessed and corrected where possible under the direction of your physical therapist. Some have been mentioned already including neck and upper back stiffness and muscle tightness where a regular stretching programme would be beneficial. Other factors include muscle weakness and poor posture which can be corrected with specific strengthening exercises. Your physical therapist can also give you advice and guidance on correcting these contributing factors:

- Inappropriate desk setup
- Poor lifting and carrying techniques
- Inappropriate pillow or sleeping postures
- A sedentary lifestyle
- A lifestyle comprising excessive slouching, bending forwards or shoulders forwards activities.
- Stress management
- Healthy diet and proper hydration.

