



On-Balance Physiotherapy

Vestibular, Balance and Neurological Rehabilitation

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WHAT IS CERVICOGENIC DIZZINESS?

Cervicogenic dizziness is caused by a disorder of the cervical spine (neck), the upper 3 vertebrae are thought to be the major contributors. It is often accompanied by neck pain and headache, and may follow a neck injury or strain, neck surgery, or can occur with the normal aging changes in the spine, arthritis, or poor posture (head forward posture).

Why Does The Neck Make Us Dizzy

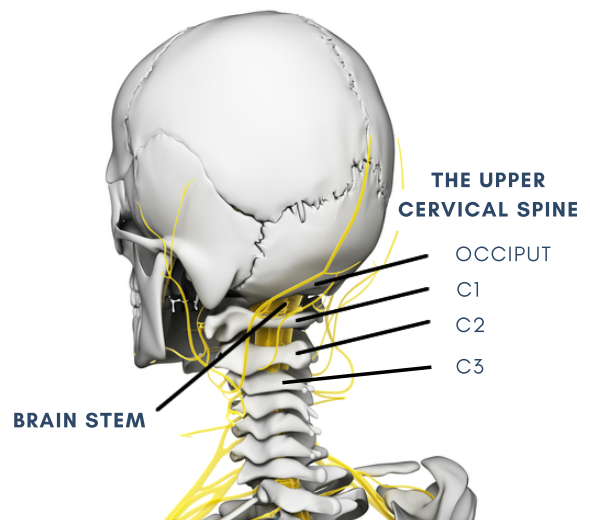
Maintenance of good balance and spatial orientation is complex, it relies on the integration of messages from different sensory inputs. This includes the vestibular system (ear balance), our vision and somatosensory system (proprioception: joint position sensors in joints and muscles, and mechanoreceptors: pressure sensors in skin and soles of our feet). The upper cervical spine (vertebrae 1-3) contain 50% of the neck's somatosensory input.

Once the brainstem gets these messages, our reflexes happen in milliseconds. These reflexes normally enable stability of gaze and postural adjustment. When these messages are working well and match up, our reflexes are quick to keep us steady. If there is a mismatch of information, it can cause us to experience dizziness/imbalance. Specifically for the neck messages:

- When this information is disrupted through a dysfunction of joint motion symptoms can occur
- This mis-information is in conflict with the normal vestibular and visual input causing dizziness/ disorientation

SYMPTOMS CAN INCLUDE

- **Non-throbbing head or face pain radiating from the neck or pain in the eyes**
- **Neck stiffness or reduced range of movement or pain on neck movement**
- **Ear pain, nausea and vomiting, light or sound sensitivity, arm pain**
- **Imbalance, sense of disequilibrium or disorientation**



DIAGNOSIS OF CERVICOGENIC DIZZINESS?

Cervicogenic dizziness is usually associated with head movement or when maintaining the head in one position for a long time, as well as reduced neck range of motion, pain and fatigue. Neck trauma like whiplash or concussion can cause cervicogenic dizziness. Assessment of the inner ear (oculomotor and balance assessment) is necessary to ensure the peripheral and central vestibular system are intact.

TREATMENT OF CERVICOGENIC DIZZINESS WITH ON-BALANCE PHYSIO

- Firstly, we assess vestibular function to rule it out as a cause of dizziness
- Then we assess your balance, as this may be affected
- Your neck is then assessed and treated
- We use manual therapy techniques (we do not manipulate) to mobilise the upper cervical spine
- Good posture is often the key to preventing further problems. You will be advised as to the best way to manage your posture in all situations.
- Joint position sense retraining and strengthening exercises may be included in your program
- Exercises designed to desensitise you to your dizziness may also be included
- You will be advised on general exercise and lifestyle adjustments
- Outcome measures are used to review and assist in the progression of your program

