

# ORTHOSPINOLOGY

DISCOVER AT

DeCubellis Family Chiropractic

## Upper Cervical Care & Dizziness

**Orthospinology**, a specific upper cervical chiropractic technique, is designed to restore proper alignment of the **atlas (C1)** vertebra, which is the top bone in the neck supporting the skull. This technique can potentially alleviate **dizziness** by addressing misalignments in the upper cervical spine that can affect nerve, vascular, and vestibular function.

### How Orthospinology May Help with Dizziness

Dizziness can be caused by a range of factors, including disturbances in the **vestibular system** (which controls balance), **cervical spine dysfunction**, and **nerve or blood flow disruption**. The following explains how orthospinology can address these underlying causes of dizziness:

#### 1. Impact on the Vestibular System

- The **vestibular system** (inner ear and brain structures controlling balance) can be affected by upper cervical misalignments. The atlas vertebra is in close proximity to the brainstem and vestibulocochlear nerve (cranial nerve VIII), which are involved in balance and spatial orientation.
- Misalignments in the upper cervical spine may put pressure on these structures, disrupting their function and leading to **vestibular dysfunction** or dizziness.
- **Orthospinology and Vestibular Function:** By realigning the atlas vertebra, orthospinology may help restore proper communication between the brain and the vestibular system, alleviating dizziness.

#### Scientific Support:

- A study published in the *Journal of Upper Cervical Chiropractic Research* (JUCCR) found that upper cervical chiropractic adjustments improved vestibular function and reduced dizziness in patients with vestibular disorders. The study suggested that restoring atlas alignment could alleviate pressure on the brainstem and cranial nerves, leading to improved balance and less dizziness.

- Another article from the *Journal of Manipulative and Physiological Therapeutics* (JMPT) also highlighted improvements in patients with cervicogenic dizziness (dizziness stemming from cervical spine issues) following upper cervical adjustments .

## 2. Reducing Nerve Interference

- Misalignment of the atlas can irritate the **nerves** that travel from the upper cervical spine to the brain, potentially causing dizziness. The atlas is located near the **brainstem**, which controls many of the body's basic functions, including balance and coordination.
- **Atlas misalignment** can interfere with the normal function of the brainstem and lead to dizziness. This is sometimes referred to as **cervicogenic dizziness**, where misalignments in the cervical spine affect balance and spatial orientation.
- **Orthospinology and Nerve Function:** Orthospinology adjustments aim to restore the proper position of the atlas, relieving pressure on the brainstem and surrounding nerves. This may allow the nervous system to function optimally, helping to resolve dizziness.

### Scientific Support:

- In a study published in *PubMed* and *JMPT*, upper cervical chiropractic adjustments were shown to relieve symptoms of **cervicogenic dizziness**. The researchers concluded that cervical spine dysfunction, especially in the upper cervical region, could cause dizziness, and that upper cervical adjustments significantly improved symptoms in patients .

## 3. Improving Blood Flow to the Brain

- The **vertebral arteries**, which supply blood to the brain, pass through the transverse foramen of the cervical vertebrae, including the atlas. Misalignments in the upper cervical spine can restrict the flow of blood through these arteries, potentially reducing blood supply to areas of the brain responsible for balance, leading to dizziness.
- **Orthospinology and Vascular Function:** By correcting atlas misalignment, orthospinology may help improve vertebral artery blood flow, ensuring proper oxygenation of the brain and reducing dizziness.

### Scientific Support:

- A study in the *Journal of Upper Cervical Chiropractic Research* noted that correcting atlas misalignments improved blood flow to the brain, which could alleviate symptoms like dizziness. This research suggested that improved blood circulation following upper cervical adjustments helped normalize vestibular function in patients with dizziness.
- Another study published in *PubMed* found that chiropractic adjustments in the upper cervical region improved **cerebrospinal fluid (CSF)** flow, which is also critical for brain health and function .

## 4. Reducing Cervical Tension and Muscle Imbalance

- Upper cervical misalignments can lead to **muscle tension** and **imbalance** in the neck, which may contribute to dizziness. Tight or strained muscles in the cervical spine can interfere with proprioception (the sense of body position) and contribute to balance problems.
- **Orthospinology and Muscle Balance:** By restoring proper cervical alignment, orthospinology adjustments can help reduce muscle tension and imbalance, allowing for better head and neck movement and reducing dizziness.

### **Scientific Support:**

- Research in the *Journal of Manipulative and Physiological Therapeutics* indicated that chiropractic care, particularly in the upper cervical region, led to a reduction in muscle tension and improved proprioceptive function, which helped alleviate dizziness in patients suffering from cervical spine dysfunction .

### **Conclusion**

Orthospinology, through precise adjustments of the upper cervical spine, can address several potential causes of **dizziness**, including vestibular dysfunction, nerve interference, restricted blood flow, and muscle imbalance. By focusing on the alignment of the atlas vertebra, orthospinology helps restore proper neurological and vascular function, which can lead to significant improvements in patients suffering from dizziness.

Research published in *PubMed*, *JMPT*, and the *Journal of Upper Cervical Chiropractic Research* supports the use of upper cervical chiropractic care in managing dizziness, particularly when related to cervical spine issues. This non-invasive approach offers a promising treatment option for individuals experiencing dizziness, especially those with cervicogenic or vestibular