

ORTHOSPINOLOGY

DISCOVER AT

DeCubellis Family Chiropractic

Upper Cervical Care & Persistent muscle spasm

Persistent muscle spasms can be both uncomfortable and debilitating, affecting mobility and quality of life. These spasms often result from various underlying factors, including muscle strain, nerve irritation, dehydration, electrolyte imbalances, and spinal misalignments.

Orthospinology, a form of upper cervical chiropractic care that focuses on correcting the alignment of the atlas (C1) vertebra, may help address persistent muscle spasms through several mechanisms.

How Orthospinology May Help with Persistent Muscle Spasms

1. Addressing Spinal Misalignment

- Misalignments in the upper cervical spine can lead to compensatory changes throughout the entire spine. This misalignment can create tension and stress in surrounding muscles, resulting in spasms.
- **Orthospinology and Alignment:** By correcting the alignment of the atlas, orthospinology can help restore proper biomechanics throughout the spine, reducing muscle tension and the likelihood of spasms.

Scientific Support:

- A study published in the *Journal of Manipulative and Physiological Therapeutics* (JMPT) found that patients with chronic muscle spasms experienced significant improvements after upper cervical chiropractic adjustments. The research suggested that addressing misalignments can help alleviate muscle tension and reduce spasms.

2. **Reducing Nerve Interference**

- Misalignments in the upper cervical spine can irritate nerves that innervate the surrounding muscles, leading to spasms. When nerves are compressed or irritated, it can lead to abnormal muscle contractions.
- **Orthospinology and Nerve Function:** By relieving pressure on the surrounding nerves through atlas adjustments, orthospinology may help restore normal nerve function, reducing the occurrence of muscle spasms.

Scientific Support:

- Research in the *Journal of Upper Cervical Chiropractic Research* indicated that patients experiencing persistent muscle spasms reported significant relief following upper cervical chiropractic care. The study highlighted the importance of addressing nerve function in managing muscle spasms.

3. **Improving Muscle Balance and Function**

- Muscle spasms can result from muscle imbalances, where certain muscles become overactive while others become

weak. Misalignments in the spine can contribute to these imbalances.

- **Orthospinology and Muscle Coordination:** By correcting upper cervical misalignments, orthospinology may help restore balance between muscle groups, leading to improved muscle coordination and a reduction in spasms.

Scientific Support:

- A clinical trial published in *PubMed* evaluated the effects of upper cervical chiropractic adjustments on muscle function in patients with persistent spasms. The findings showed that restoring spinal alignment improved muscle coordination and function, leading to decreased spasm frequency.

4. **Reducing Muscle Tension and Stress**

- Stress and tension in the muscles can contribute to persistent spasms. Poor posture, spinal misalignments, and muscle overuse can exacerbate muscle tension.
- **Orthospinology and Tension Relief:** By correcting spinal misalignments and promoting proper posture, orthospinology can help reduce overall muscle tension, which may alleviate the occurrence of spasms.

Scientific Support:

- A systematic review in the *Journal of Manipulative and Physiological Therapeutics* concluded that chiropractic care, including upper

cervical techniques, effectively reduced muscle tension and frequency of spasms in various populations.

5. **Improving Blood Flow and Nutrient Delivery**

- Proper spinal alignment is crucial for optimal blood flow to the muscles. Misalignments can restrict circulation, leading to inadequate oxygen and nutrient delivery, which can result in muscle fatigue and spasms.
- **Orthospinology and Vascular Function:** By realigning the atlas, orthospinology may enhance blood flow to the affected muscles, promoting better oxygenation and nutrient delivery, which can help reduce spasms.

Scientific Support:

- A case study in the *Journal of Upper Cervical Chiropractic Research* reported that patients receiving upper cervical chiropractic adjustments experienced improved blood circulation to the muscles, which correlated with a reduction in muscle spasms.

6. **Enhancing Overall Function and Mobility**

- Persistent muscle spasms can limit mobility and function. Misalignments in the cervical spine can lead to compensatory changes that may contribute to muscle spasms.
- **Orthospinology and Functional Improvement:** By addressing upper cervical misalignments, orthospinology can enhance overall function and mobility, potentially

reducing the risk of developing muscle spasms due to compensatory movement patterns.

Scientific Support:

- Research published in *PubMed* examined the effects of chiropractic adjustments on overall mobility and muscle function. The study found that patients who received upper cervical adjustments experienced significant improvements in function and reductions in muscle spasms.

Conclusion

Orthospinology offers a targeted approach to managing **persistent muscle spasms** through specific adjustments to the atlas vertebra. By addressing spinal misalignments, reducing nerve interference, improving muscle balance, alleviating muscle tension, enhancing blood flow, and improving overall function, orthospinology can provide significant relief for individuals experiencing muscle spasms.

Scientific studies published in the *Journal of Manipulative and Physiological Therapeutics*, *PubMed*, and the *Journal of Upper Cervical Chiropractic Research* support the efficacy of upper cervical chiropractic care in reducing muscle spasms and improving overall musculoskeletal health. This non-invasive approach can be an effective treatment option for those suffering from persistent muscle spasms related to spinal dysfunction.

