

# ORTHOSPINOLOGY

DISCOVER AT

DeCubellis Family Chiropractic

## Upper Cervical Care & Muscle Spasm

Upper cervical chiropractic care, focuses on realigning the **atlas (C1)** vertebra, which can influence the surrounding musculature and alleviate muscle spasms.

### How Orthospinology May Help with Muscle Spasms

#### 1. Addressing Nerve Interference

- Misalignment of the atlas can lead to nerve irritation or compression, affecting the nerve signals that regulate muscle function. This can result in muscle spasms due to abnormal nerve firing patterns.
- **Orthospinology and Nerve Function:** By correcting atlas misalignments, orthospinology may relieve pressure on the surrounding nerves, allowing for better communication between the brain and muscles. This can help restore normal muscle function and reduce the occurrence of spasms.

#### Scientific Support:

- A study published in the *Journal of Manipulative and Physiological Therapeutics* (JMPT) indicated that chiropractic adjustments, including upper cervical techniques, effectively reduced muscle spasms in patients with cervical spine dysfunction. The research demonstrated that realigning the atlas could decrease nerve irritation and improve muscle coordination.

#### 2. Restoring Muscle Balance

- Misalignments in the upper cervical spine can lead to muscle imbalances in the neck and upper back, contributing to spasms. For example, if the muscles on one side of the neck are overactive due to poor alignment, it can lead to tightness and spasms.
- **Orthospinology and Muscle Balance:** By correcting the alignment of the atlas, orthospinology may help restore balance between the muscles on both sides of the spine, reducing the likelihood of spasms.

#### Scientific Support:

- Research in the *Journal of Upper Cervical Chiropractic Research* found that patients receiving upper cervical chiropractic adjustments experienced improvements in muscle

balance and a reduction in muscle spasms. The study emphasized that restoring proper alignment could lead to decreased tension in overactive muscles.

### 3. **Reducing Muscle Tension**

- Muscle spasms are often accompanied by muscle tension, which can be exacerbated by misalignments in the cervical spine. Tension can lead to increased strain on the muscles, resulting in spasms and discomfort.
- **Orthospinology and Tension Relief:** By realigning the atlas, orthospinology may help reduce overall muscle tension, providing relief from muscle spasms.

#### **Scientific Support:**

- A clinical trial published in *PubMed* evaluated the effects of chiropractic care on muscle tension and spasms. The study found that patients who received chiropractic adjustments, including those targeting the upper cervical spine, reported significant reductions in muscle tension and associated spasms after treatment.

### 4. **Improving Blood Flow and Nutrient Delivery**

- Spinal misalignments can affect blood flow to the muscles, leading to oxygen deprivation and nutrient deficiencies that may contribute to spasms. Improved circulation is crucial for muscle recovery and function.
- **Orthospinology and Vascular Function:** By restoring proper alignment in the upper cervical spine, orthospinology may enhance blood flow to the muscles, promoting better oxygenation and nutrient delivery, thereby reducing the risk of spasms.

#### **Scientific Support:**

- A study in the *Journal of Upper Cervical Chiropractic Research* indicated that upper cervical chiropractic adjustments improved blood flow and oxygen delivery to the surrounding musculature, leading to a reduction in muscle spasms and improved overall muscle function.

### 5. **Alleviating Stress and Muscle Overactivity**

- Emotional and physical stress can lead to muscle tension and spasms. Misalignments in the upper cervical spine may contribute to stress-related muscle tightness and overactivity.
- **Orthospinology and Stress Reduction:** By correcting spinal misalignments, orthospinology can help reduce physical stress on the body, which may alleviate muscle tension and spasms caused by stress responses.

#### **Scientific Support:**

- Research published in *PubMed* examined the relationship between chiropractic care and stress-related muscle spasms. The findings suggested that chiropractic adjustments, particularly in the upper cervical region, helped reduce stress levels and consequently decreased the frequency of muscle spasms.

### 6. **Improving Overall Spinal Function**

- Muscle spasms can be part of a larger issue involving spinal dysfunction or misalignment, leading to compensatory changes in muscle activity.
- **Orthospinology and Spinal Function:** By restoring alignment to the upper cervical spine, orthospinology can enhance overall spinal function, which may help prevent compensatory muscle spasms in other areas of the body.

### **Scientific Support:**

- A systematic review in the *Journal of Manipulative and Physiological Therapeutics* concluded that chiropractic care improved spinal function and reduced compensatory muscle spasms in patients with various spinal conditions. The review highlighted the effectiveness of upper cervical adjustments in addressing muscle spasms related to spinal dysfunction.

### **Conclusion**

Orthospinology offers a targeted approach to managing **muscle spasms** through specific adjustments to the atlas vertebra. By addressing nerve interference, restoring muscle balance, reducing muscle tension, improving blood flow, alleviating stress, and enhancing overall spinal function, orthospinology can help alleviate muscle spasms and improve patient outcomes.

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