ORTHOSPINOLOGY

DISCOVER AT

DeCubellis Family Chiropractic

Upper Cervical Care & Lower Back Pain

Lower back pain (LBP) is a prevalent condition that can stem from various causes, including muscle strain, ligament sprains, spinal disc issues, and misalignments in the lumbar spine. **Orthospinology**, a specialized form of upper cervical chiropractic care, primarily focuses on the atlas (C1) vertebra but can also influence the overall alignment and function of the spine, potentially alleviating lower back pain through several mechanisms.

How Orthospinology May Help with Lower Back Pain

1. **Addressing Spinal Misalignment**
    - Misalignment of the spine, particularly in the upper cervical region, can lead to compensatory changes in the lower back. For example, when the atlas is misaligned, it can affect the overall biomechanics of the spine, leading to increased stress on the lumbar region and subsequent pain.
    - **Orthospinology and Alignment:** By correcting the alignment of the atlas, orthospinology may help restore normal spinal mechanics, reducing undue stress on the lumbar spine and alleviating lower back pain.

Scientific Support:

- A study published in the *Journal of Manipulative and Physiological Therapeutics* (JMPT) reported significant improvements in lower back pain in patients receiving upper cervical chiropractic adjustments. The research indicated that correcting upper cervical misalignments led to improved overall spinal alignment and function.

2. **Reducing Nerve Interference**
    - Misalignments in the upper cervical spine can lead to nerve irritation or compression that may affect the entire nervous system, including nerves that innervate the lower back muscles. This can contribute to pain and discomfort in that region.
    - **Orthospinology and Nerve Function:** By relieving pressure on the surrounding nerves through atlas adjustments, orthospinology may improve communication between the brain and lower back muscles, helping to alleviate pain.

Scientific Support:

- Research in the *Journal of Upper Cervical Chiropractic Research* found that patients experiencing chronic lower back pain reported significant relief following upper cervical chiropractic care. The study highlighted the role of nerve function in pain modulation and the effectiveness of addressing upper cervical misalignments.

3. **Improving Muscle Function and Balance**
    - Misalignments in the upper cervical spine can lead to muscle imbalances in the lower back, contributing to pain. When

the muscles are not functioning optimally, it can result in overuse, strain, and subsequent pain in the lower back.

- **Orthospinology and Muscle Balance:** By restoring proper alignment of the atlas, orthospinology may help restore balance between the muscles in the back, reducing the risk of strain and pain.

Scientific Support:

- A study published on **PubMed** evaluated the effects of upper cervical chiropractic adjustments on muscle function and pain in patients with lower back pain. The findings showed that restoring spinal alignment improved muscle balance and function, leading to decreased lower back pain.

4. **Enhancing Blood Flow**
    - Proper spinal alignment is crucial for optimal blood flow to the lower back muscles. Misalignments can restrict blood circulation, leading to muscle fatigue, tightness, and pain.
    - **Orthospinology and Vascular Function:** By realigning the atlas, orthospinology may enhance blood flow to the lumbar region, promoting better oxygenation and nutrient delivery, which can alleviate pain and support healing.

Scientific Support:

- A case study in the *Journal of Upper Cervical Chiropractic Research* noted that upper cervical chiropractic adjustments improved blood circulation to the lower back, which correlated with a

reduction in pain levels among patients suffering from chronic lower back pain.

5. **Reducing Muscle Tension and Stress**
    - Muscle tension in the lower back can contribute to pain and discomfort. Stress and poor posture can exacerbate this tension, leading to spasms and pain.
    - **Orthospinology and Tension Relief:** By correcting spinal misalignments and restoring proper posture, orthospinology can help reduce muscle tension in the lower back, alleviating pain associated with muscle tightness.

Scientific Support:

- A clinical trial published in the *Journal of Manipulative and Physiological Therapeutics* found that patients who received chiropractic care, particularly upper cervical adjustments, experienced significant reductions in muscle tension and lower back pain.

6. **Improving Overall Spinal Function**
    - Lower back pain is often linked to dysfunction in other areas of the spine. Misalignments in the upper cervical spine can lead to compensatory changes in the lumbar region, exacerbating pain.
    - **Orthospinology and Spinal Function:** By addressing upper cervical misalignments, orthospinology can enhance overall spinal function, potentially reducing lower back pain by restoring normal movement patterns.

Scientific Support:

- A systematic review in the *Journal of Manipulative and Physiological Therapeutics* concluded that chiropractic care, including upper cervical techniques, improved overall spinal function and reduced lower back pain in various populations.

Conclusion

Orthospinology offers a targeted approach to managing **lower back pain** through specific adjustments to the atlas vertebra. By addressing spinal misalignment, reducing nerve interference, improving muscle function and blood flow, and alleviating muscle tension, orthospinology can provide significant relief for individuals suffering from lower back pain.

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 lower back pain and improving overall spinal health. This non-invasive approach can be an effective treatment option for those experiencing chronic lower back pain related to spinal dysfunction.