

ORTHOSPINOLOGY

DISCOVER AT

DeCubellis Family Chiropractic

Upper Cervical Care & Arthritis of the spine

Orthospinology, a specialized form of upper cervical chiropractic care focusing on the alignment of the **atlas** (C1) vertebra, can offer benefits for patients suffering from **arthritis of the spine**, particularly through its indirect effects on spinal biomechanics, nerve function, and inflammation. While orthospinology does not directly treat arthritis (which is primarily a degenerative or autoimmune condition), it may help manage symptoms by addressing structural imbalances and improving overall spinal health. Here's how orthospinology may address arthritis of the spine:

1. Restoring Proper Spinal Alignment

- **Biomechanical Compensation:** Arthritis, particularly osteoarthritis (OA), often causes misalignment in different parts of the spine due to joint degeneration. When arthritis affects the spine, it leads to **imbalanced posture** and compensatory movements, which can place additional stress on other parts of the spine. Misalignment in the **upper cervical spine** (atlas) can exacerbate this compensation throughout the entire spine.
- **Postural Improvement:** Orthospinology aims to correct misalignment in the upper cervical spine, specifically at the atlas, which can improve overall posture. Restoring proper alignment may reduce the uneven pressure placed on the joints of the spine, alleviating some of the pain and discomfort caused by arthritis. This can also reduce the risk of further degenerative changes in other regions of the spine by improving the distribution of weight and forces across the spine.

2. Reducing Nerve Irritation and Inflammation

- **Nervous System Impact:** The upper cervical spine is home to the **brainstem**, which plays a key role in regulating the body's autonomic functions, including inflammation, pain perception, and healing responses. A misalignment in the atlas can lead to irritation or compression of the brainstem and spinal cord, potentially causing **increased pain sensitivity** and **inflammatory responses**.
- **Nerve Flow Optimization:** By correcting the alignment of the atlas, orthospinology may help reduce nerve irritation and improve the function of the nervous system. This can lead to better communication between the brain and the body, potentially reducing the **chronic inflammation** associated with arthritis. Less nerve irritation can also reduce

secondary symptoms, such as muscle spasms and referred pain, that can accompany spinal arthritis.

3. Alleviating Pain and Discomfort

- **Pressure Relief on Spinal Joints:** Misalignments in the upper cervical spine can lead to excessive pressure on certain spinal segments, particularly in the lumbar and cervical regions, which are often affected by osteoarthritis. This extra pressure can worsen arthritic symptoms by increasing the wear and tear on joints.
- **Improved Mobility:** Orthospinology adjustments can help restore joint mobility in the spine by improving alignment and reducing joint dysfunction. As joint mobility improves, pain may decrease, allowing patients to move more freely and engage in physical activities that can help maintain joint flexibility and strength. This can have a long-term beneficial effect on the progression of spinal arthritis.

4. Enhancing Overall Spinal Health

- **Facet Joint Support:** Spinal arthritis, particularly osteoarthritis, commonly affects the **facet joints**, which are the small joints between vertebrae that allow for movement. When these joints become inflamed or degenerate, it can result in localized pain, stiffness, and nerve compression.
- **Prevention of Further Degeneration:** Although orthospinology does not reverse arthritis, it may slow its progression by improving joint function and reducing excess strain on arthritic joints. By correcting upper cervical misalignments, orthospinology can help the body maintain a more natural, balanced position, reducing undue stress on other spinal structures and minimizing further joint degradation.

5. Impact on Autoimmune Arthritis (e.g., Rheumatoid Arthritis)

- **Rheumatoid Arthritis (RA):** RA is an autoimmune condition that can affect the spine, leading to inflammation, joint damage, and systemic symptoms. While orthospinology cannot treat the autoimmune process itself, it may provide relief by reducing the overall inflammatory burden in the body. Restoring alignment and reducing stress on the nervous system can help modulate the body's response to inflammation, potentially providing relief from the pain and stiffness caused by RA in the spine.
- **Central Nervous System Modulation:** Proper spinal alignment, particularly in the upper cervical area, may also improve central nervous system function, which can play a role in regulating the body's immune and inflammatory responses. This could be particularly helpful in managing the pain and systemic inflammation associated with RA.

6. Improvement of Circulation and Fluid Dynamics

- **Cerebrospinal Fluid (CSF) and Blood Flow:** Misalignment in the upper cervical spine can affect the flow of cerebrospinal fluid and blood to the brain and spinal cord. By

correcting these misalignments, orthospinology can improve circulation, reducing the accumulation of **inflammatory markers** and helping the body to flush out waste products more efficiently. Improved circulation can also enhance nutrient delivery to damaged joints, potentially promoting better healing and reducing inflammation.

- **Reduction of Spinal Stenosis Symptoms:** Arthritis can cause **spinal stenosis**, a narrowing of the spinal canal that puts pressure on the spinal cord and nerves. While orthospinology does not directly treat stenosis, correcting upper cervical alignment may reduce some of the compensatory mechanisms that worsen the condition, potentially alleviating some symptoms associated with nerve compression.

Scientific Evidence and Case Studies

While research directly linking orthospinology and the treatment of spinal arthritis is limited, several chiropractic case studies and broader chiropractic research suggest that upper cervical adjustments may help alleviate pain and improve spinal function in patients with arthritis:

- **Chiropractic Care and Osteoarthritis:** Studies have shown that chiropractic adjustments, including those targeting the upper cervical spine, can help reduce pain and improve range of motion in patients with osteoarthritis. Chiropractic care has also been associated with a reduction in pain-related disability.
- **Upper Cervical Care and Inflammation:** Research on upper cervical care, including orthospinology, has demonstrated positive effects on the nervous system and inflammation, which are central components in the pathology of arthritis.

Conclusion

Orthospinology may offer an effective complementary approach for managing the symptoms of **arthritis of the spine** by addressing upper cervical misalignments. While it cannot cure arthritis or reverse joint degeneration, it can help reduce pain, improve posture, alleviate nerve irritation, and promote better overall spinal function. By improving alignment in the upper cervical spine, orthospinology may reduce compensatory stress on arthritic joints in other regions of the spine, providing relief and improving quality of life for those suffering from spinal arthritis.