

Workshop Title:

Understanding the Musician's Hand: Carpal Bone Mechanics and Manual Therapy Approaches

Presenters:

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Overview:

Musicians frequently experience hand and wrist problems due to the complex demands of their instruments. Each instrument imposes distinct mechanical loads on the upper extremities, particularly affecting the carpal bones and surrounding joints. Understanding the arthrokinematics—the subtle joint motions between carpal bones—provides essential insights into the mechanisms of injury and dysfunction in musicians. This workshop explores the interplay between the carpal bones, thumb, wrist, and elbow joints, highlighting how disruptions in these relationships contribute to common musculoskeletal issues in musicians.

Purpose:

To provide participants with a functional understanding of carpal bone mechanics and hands-on skills for assessing and addressing wrist and hand dysfunctions in musicians through manual therapy techniques.

Workshop Content:

- Overview of carpal bone arthrokinematics, including the thumb, wrist, and elbow
- Instrument-specific patterns of hand/wrist dysfunction
- Common clinical presentations in musicians
- Introduction to manual assessment techniques of the hand
- Palpation and mobilization of carpal and thumb joints
- Kaltenborn mobilization techniques (see below)
- Targeted exercises for the hand, thumb, and elbow

Format:

- 5 min: Guided hand exercise warm-up
- 30 min: Theoretical session (joint mechanics, clinical patterns, therapeutic rationale)
- 30 min: Practical session (palpation, mobilization techniques, exercises)
- 5 min: Summary and key takeaways

Clinical/Practical Significance:

Participants will gain an in-depth understanding of wrist and hand joint function, along with practical manual therapy techniques to assess and manage dysfunction in musicians. This knowledge supports effective prevention and rehabilitation strategies tailored to musicians' needs.

Note on Kaltenborn Techniques:

Freddy M. Kaltenborn is a Norwegian physiotherapist and a pioneer in manual therapy. The Kaltenborn-Evjenth Concept emphasizes precise biomechanical assessment and joint mobilization techniques based on arthrokinematic principles. His method is widely used for non-thrust joint mobilizations, particularly effective in treating joint dysfunctions in the upper extremity.