

## **The Effects of Neuragen® and Tai Chi on Pain and Physical Performance in Peripheral Neuropathy, A Pilot Study**

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### **ABSTRACT**

Peripheral neuropathy is often debilitating and notoriously difficult to treat. The **objective** of this study was to investigate if the application of Neuragen®, an externally-applied natural pain medication, can enhance the ability of Tai Chi practice to manage the symptoms and functional complications of peripheral neuropathy. **Design/Location:** A six week intervention was conducted as part of a larger peripheral neuropathy intervention study conducted at Louisiana State University. **Subjects:** Participants with all-cause PN were recruited and randomly assigned into a Neuragen® or No/Neuragen® group. **Intervention:** While both groups received six weeks of Tai Chi practice, the Neuragen® group received external Neuragen® application before each session. **Outcome Measures:** Pain level was monitored on a 0-10 scale three times every session. Selected measures of physical performance, including plantar pressure sensitivity, the six minute walk test, the timed-up-and-go test, standing balance, and leg strength were assessed pre-and post-intervention. **Results:** The application of Neuragen® significantly reduced pain levels within five minutes and its effects lasted for at least one hour. Six weeks of Tai Chi practice led to significant pain reduction and physical performance improvement. Furthermore, Tai Chi practice coupled with the application of Neuragen® led to enhancement of long-term pain reduction and physical performance improvement. **Conclusions:** We conclude that the combination of Neuragen® and Tai Chi can reduce both short term and long term pain and improve physical functioning in all-cause peripheral neuropathy patients.

Figure 2. Pain level reported by participants in each session averaged across six weeks of intervention. The application of Neuragen® significantly ( $p < 0.05$ ) reduced the pain level five minutes after application (5MIN) and at the end of the exercise sessions (POST). The slight trend of pain reduction with Tai Chi exercise was not statistically significant.

