

An Osteopathic Assessment of Lower Extremity Somatic Dysfunctions in Runners at Touro College of Osteopathic Medicine, Harlem, NY

Authors and Affiliations:

Abbey Santanello, OMS- III, Pamela Matthew, MPH, MS, OMS-II, Anthony Modica, MS, OMS-II, Sergio Suarez, DO, Mikhail Volokitin, MD, DO.

Touro College of Osteopathic Medicine – Harlem, NY
230 W 125th St. New York, NY 10027

Introduction/Background:

Runners often experience acute /chronic pain due to pre-existing structural somatic dysfunction or acquired overuse injuries of the lower extremity, affecting the ligaments, tendons, muscles and bones. With an understanding of the common trends of somatic dysfunctions and etiology of the pain/injury, modified regimen treatment plans can be developed and recommended for runners to better rehabilitate, minimize relapse and reduce compensatory injuries.

Objective

The purpose of this study is to assess the correlation between acute and chronic pain, overuse injuries, and observational and palpatory findings upon evaluation.

Methods:

A group of self-identified runners completed a survey with questions related to their running training routine, dietary intake and medical history. Participants were assessed for lower extremity musculoskeletal dysfunctions using an osteopathic structural examination.

Results:

Preliminary analysis suggests a correlation between the number of somatic dysfunction and years of running $r(25)= +0.30$, $p(0.13)$. A small correlation was found between somatic dysfunctions and miles per week, sports injuries, time per week, lower extremity pain, $r(25)= +0.14$, $p(0.48)$; $r(25)= +0.10$, $p(0.61)$; $r(25)= -0.03$, $p(0.89)$; $r(25)= -0.01$, $p(0.97)$.

Discussion/Conclusion:

Running has been identified as one the most popular sports essential for health maintenance and physical fitness; however, has been associated with many sports related injuries. Extrinsic factors such as high weekly mileage and incorrect shoes, poor training and nutrition habits, and inadequate rehabilitation from previous injuries have been identified as possible determinants of running-related injuries. Some correlation exists between years running and number of diagnosed somatic

dysfunctions. A broader sample size is required to establish statistical significance.