

## **A study into the comparison of counterstrain and muscle energy techniques on the gastro-soleus complex and their subsequent effects on passive dorsiflexion of the talo-crural joint.**

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The purpose of this study was to investigate the use of counterstrain and muscle energy treatments on the gastro/soleus complex and then to assess their effects on any subsequent alteration in passive ankle dorsiflexion. By comparing the treated groups with an internal control it is hoped that insight into the relative efficacy of each technique may be gained and also an understanding of the use and practice of counterstrain techniques will be achieved. This study constituted an independent subject design with three conditions, comparing two forms of treatment with an internal control. Each subject was asked to lie supine on a treatment couch, and a force relative to the subject's body weight was then applied via a spring balance and template to ensure constant angle of application of force parallel to the tibial shaft cf. Moseley & Adams (1991). A further series of markers on the tibial crest acted to ensure consistency of the direction of force in the horizontal plane and thus minimise variations in inversion/eversion at the subtalar joint. Photographs were then taken of the subject's leg, two prior and one post treatment. Subsequent analysis of the photographs enabled the angles to be calculated and any changes between pre- and post treatment assessed. No significant difference was found between either of the two treatment regimes, but both forms of treatment proved to give a small but significant improvement over the pre-treated state. The apparatus (Lidcombe template) used to induce a force proportional to the subjects body weight, proved to be an accurate and reliable means of measuring ankle dorsiflexion, and may be of use in further studies.