BRITISH COLLEGE OF
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Research Title: **Inter-examiner and intra-examiner reliability of the malleoli discrepancy measurement**

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ABSTRACT

Background: Palpation is a very important part of osteopathy practice and malleoli are the most used points to detect a legs length asymmetry. Many studies have been performed to verify inter-class and intra-class palpation reliability into legs length asymmetry diagnosis, but conflicting results have been obtained.

Objectives: to investigate inter-examiner and intra-examiner reliability of malleoli palpation in order to detect legs length asymmetry.

Methods: twelve examiners with different work experience examined the levels of malleoli in five asymptomatic subjects in order to verify the presence of legs asymmetry. In order to guarantee total anonymity examination couches were positioned side by side and a screen was placed above the ankles to cover the rest of the body. Fleiss' Kappa and Multirater Free Marginal Kappa were used to analyse inter-examiners and intra examiners data respectively.

Results: Fleiss' Kappa showed poor inter-examiners reliability (0.17 in the first measurement and 0.19 in the second one). The less experienced group obtained the highest level of agreement (0.34 and 0.29), while the most experienced group and the intermediate group obtained the worst level of agreement: -0.075 and 0.12 respectively. Multirater Free Marginal Kappa was 0.06, showing poor intra-examiners reliability.

Conclusion: This study demonstrates poor inter-examiners and intra-examiners reliability in malleoli measurement.