

**Title:**

Characterising Therapist Perception of Tissue Response during Soft Tissue Palpation of Lymphoedema

**Abstract:**

In the clinical setting, reliable information about the characteristics of lymphoedematous tissue is required for diagnostic classification and treatment monitoring. Currently there is no universally standardised or accessible clinical method for measuring lymphoedematous tissue changes, so a combination of instrumented or observational measures (including volumetric, tissue compliance, fluid dynamics and fibrosis measures) and manual assessment (palpation) are usually adopted. Palpation has long been an important element of gaining information about the presence or extent of skin and soft tissue changes in lymphoedema. However, little is known about how the therapist gathers and interprets the information from their palpation. The aims of this study are to gain an understanding of: (1) the techniques therapists use to palpate lymphoedematous tissue; and (2) how the therapists perceive and interpret their palpation findings. Preliminary observations indicate that experienced therapists vary their palpation for different patient characteristics and filter the information perceived during manual assessment to derive their interpretation of soft tissue characteristics. The process appears to be automatic, and therapists have difficulty verbalising responses to questions regarding the practical techniques that guide decision making during palpation assessment. Qualitative data from semi-structured interviews conducted with physiotherapists experienced in manual assessment of lymphoedema will be presented in relation to the study aims. Information from this study will contribute to knowledge in the field of manual palpation examination which may aid in further development of diagnostic tools and methods.