

**Hanne Albert**, Dr Hanne Albert PT, MPH, PhD  
Modic changes, a "new" subgroup of Low back pain

Modic changes and back pain Modic changes are bone edema in vertebrae that are only visible on magnetic resonance images (MRI); they are signal variations of the vertebral endplate and the adjacent subchondral vertebral bone marrow. Modic changes are "new" pathological changes that cause back pain and have been shown to be both commonly observed in and strongly associated with low back pain. A systematic review demonstrated that the prevalence of Modic change in patients with non-specific low back pain (LBP) was 46 % in patients seeking care at a specialist center as opposed to 6 % in the general population. A positive association between Modic type and non-specific LBP was found with a mean odd ratios of 4.5. These findings are particularly relevant, as chronic lower back pain (CLBP) is seldom reliably attributable to specific pathoanatomical causes.

What could be a sufficient treatment for this specific cause of LBP?

Dr. Hanne Albert takes us with her to the treatment options for Modic changes, and how her studies support these options that could be considered as an effective treatment for this type of LBP. In her phase 4 study of patients with Modic change (bone edema) following a lumbar disc herniation who were treated with antibiotics obtained statistically significant improvements, in all outcome measures. The effect size was clinically important in magnitude and substantially greater than all currently established treatments. The results showed that the improvement continues after the previously demonstrated 1 year follow-up.

**Georg Supp**, PT, Dip MDT  
PULZ im Rieselfeld, Freiburg, Germany

*When is an extremity problem not an extremity problem?*

*A study exploring the prevalence of Extremity Pain of Spinal Source (EXPOSS, submitted for publication)*

Georg Supp is one of the authors of EXPOSS. He will present a research project which aimed to investigate the proportion of patients with extremity pain that have a spinal source of symptoms and to evaluate their response to spinal intervention.

A team of international clinicians conducted a prospective cohort study with 369 patients. These patients presented with extremity pain. They were convinced that this pain arises from the extremity and physicians' diagnoses – if available – were spinal ones. The participating clinicians assessed the patients using a Mechanical Diagnosis and Therapy (MDT) differentiation process. Numerical Pain Rating Scale, Upper Extremity/Lower Extremity Functional Index and the Orebro Questionnaire were collected at the initial visit and at discharge. Global Rating of Change outcomes were collected at discharge. Clinicians provided MDT 'treatment as usual'. A chi-square test examined the overall significance of the comparison within each region. Multilevel linear models were used to compare the outcomes. Georg will present the study and the results. He will involve the audience in the analysis and provide some food for thought for daily clinic.

**Charlotte Krog**, PT, Dip. MDT

*Specialist in Musculoskeletal Physiotherapy, Master of Positive Psychology (MoPP),  
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*Enhancing adherence by giving patient's a voice.* Research has shown that limiting the study and treatment focus primarily to biomedical factors, may adversely affect the patient's confidence and adherence with the "training / activity" intervention administered by the physiotherapist. Literature therefore suggests integrated focus on specific individual factors, environmental factors and social factors. The use of Feedback Informed Treatment allows for a more reflective Bio Psychosocial and alliance approach. Combining these factors gains increased insight into and understanding of the psychosocial and alliance factors influence and contribution to the patient's overall presentation and seems to have a decisive effect on the treatment and connection to a person who is bothered by long term musculoskeletal problems. The background for using this approach in combination with the effect scores covering Bio Psycho Social Alliance -scores with mastering issues will be presented in combination with patient cases demonstrating this.

**Stephen May** FCSP, Dip MDT, PhD

Fac. of Health and Wellbeing, Sheffield Hallam University, Sheffield, UK

*Centralization and directional preference: 30 years of evidence*

The aim of this presentation is to try to summarize 30 years of evidence regarding centralization and directional preference.

Centralization is the abolition of distal and spinal pain in response to repeated movements or sustained postures. Directional preference is the repeated movement that produces centralization or an abolition or decrease in symptoms or an increase in range of movement. We have previously conducted two systematic reviews on this topic (Aina et al. 2004; May and Aina, 2012); and recently produced an updated review and synthesis of the evidence (May et al. 2018). Among the studies included for the updated review (n=43) were randomized controlled trials (RCTs) (10) or their secondary analysis (4), cohort studies (15), case studies (10), or cross-sectional studies (4). The quality of the RCTs / cohort studies was recorded as low (4 / 6), medium (3 / 1), and high (3 / 5). The prevalence of centralization (40%) and directional preference without centralization (26%), with a total of 66% was similar to previous reviews. Both were confirmed as key positive prognostic factors in patients with low back pain, with less evidence regarding neck pain. There was no evidence that they were treatment effect modifiers. Evidence relating to reliability is conflicting. There is considerable evidence over the last 30 years that centralization and directional preference are important indicators of good prognosis, and should be routinely examined for in all patients with low back pain. There is more limited evidence regarding neck pain. Together they account for 60-70% of all patients with low back pain.