ÖSSUR ACADEMY

BRACING
from a physio perspective

Professor Mike Callaghan
Ph.D., M.Phil., MCSP

Össur interviews Professor Callaghan about the historic views and how current research should make you think again.

Q: "How do you interpret the current mindset on bracing within the physio community, and where might that come from?"

Mike: "Bracing has a mixed set of views, among clinicians generally and physios specifically. For ankle conditions which involve pain and instability, braces are looked upon favourably with a rationale for their prescription, recommendation and use. They are seen as both a cost effective and clinically effective option. There's also the reputation as something that can be worn on a return to play, being less obtrusive and aesthetically more acceptable.

For the knee, the brace is more often looked as an early rehab protection post injury or surgery and increasingly something for those with a more chronic problem; such as osteoarthritis. The designs of the brace (for example lycra or a metal hinge style) are important considerations for the level of treatment adherence.

It is possible that a reluctance to recommend bracing for chronic knee pain has something to do with their cost and availability within the NHS, rather than a weak scientific rationale."

Q: "What has your research highlighted when it comes to bracing of the knee?"

Mike: "Firstly, our research has shown that knee bracing has a beneficial role to play in the treatment of painful knee OA. Secondly, bracing doesn't have much in the way of detrimental effects, few skin problems or adverse events. It's also now clearer the need to be specific about the choice of knee brace, as one type may not benefit all conditions. For example, patellofemoral bracing may not be helpful for medial compartment knee OA and vice versa.

Our research highlighted another important fact, that knee bracing does not make the quadriceps muscles weak, which has long been expounded as a reason for wearing braces for as short a time as possible. This should remove one reason why braces are looked up with some reservation. It also showed that bracing improves knee joint proprioception."

Q: "What's your opinion on physiotherapy in combination with bracing?"

Mike: "Well, no-one knows the answer to this yet with any real certainty, which is why the multi centre HTA funded PROP-OA trial is taking place in the UK. We are investigating whether combining a brace with the usual care for knee OA (including physiotherapy modalities like exercise) is more beneficial for patients' arthritic knee pain than not adding a brace.

On the face of it, having 2 treatment modalities (brace and exercise) sounds like a winning combination. There is little risk of an adverse event from either and both have a good rationale for their use independently. So logic dictates that the two together might be even better, but we won't know this with certainty until the PROP-OA trial publishes its findings."

Q: "How can the orthotic industry enhance the bracing perception physios have?"

Mike: "Knee braces are often regarded as troublesome and problematic to size and fit properly; ankle braces less so. Ankle braces benefit from several onesize-fits-all models, whereas a knee brace has more intricacies in the fitting and sizing, creating barriers in their consideration for knee conditions. One big enhancement would be to have one size fits all to reduce some of these barriers, but technically this would be tricky!

What would it take make physio more mindful of bracing as a viable treatment for MSK disorders? I think cost, ease of use and availability. Our acute ankle service run in the Emergency Department has a simple system to fit ankle braces. The knee is more challenging after an acute injury as there are more conditions encountered, so the choice of brace becomes complex."

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