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## New treatment modality for massive rotator cuff tears

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The treatment of full-thickness massive rotator cuff tears (MRCT) is challenging and associated with a high treatment failure and re-tear rate. As there is no current consensus or definitive guidelines concerning the treatment of this devastating condition, there is a need to evaluate potential alternatives for this patient's population. The InSpace<sup>m</sup> device is a novel treatment modality of an inflatable biodegradable implant, made of a copolymer of poly lactic acid and caprolactone that degrades within12 months. The spacer is deployed arthroscopically into the sub-acromial space and allows smooth gliding of the humeral head against the acromion. The temporary lowering of the humeral head during spacer inflation in patients with full thickness massive RCTs may additionally provide improved balance between the subscapularis anteriorly and the infraspinatus posteriorly, permitting better deltoid activation and compensation. The device is approved for use in the EU (since July 2010) and has been tested in several clinical trials as well as implanted in over 4000 commercial cases. The gained clinical experience showed low risk and good safety profile along with a promising effectiveness results, which includes clinically and statistically significant improvement in shoulder functionality, that maintained for a long term (of up to 5 years) in the majority of the treated patients. The use of the InSpace device may be a simple and less invasive alternative that has the potential to provide comparable safety and effectiveness profile to other available surgical options such as arthroscopic partial repair, tendon transfer rotator cuff allograft or arthroplasty.

## Biography

Eran Maman, Medicine Doctor (MD), is currently Head of the Shoulder Surgery Unit at Tel Aviv Medical Center. After finishing medical school, he completed his residency in orthopedics. Furthermore, he did a Clinical fellowship in Shoulder Surgery at Toronto University, Canada. His research focuses on tendon biology and tendon to bone healing. He aims at finding an optimal biological treatment that is capable of improving tendon-bone interface and promotes healing. He has been working on rat models rotator cuff tears and the influence of many different drugs/material (PRP, steroid, NSAID, statins) on tendon to bone healing in terms of histology and biomechanics. Our group has pioneered on the influence of statins with or without NSAID on the tendon to bone healing on repaired RC.

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