

Research Project Details	
Title	Arthroscopic Rotator Cuff Repair Utilizing Mechanical Bone Debridement vs Coblation Debridement: A Prospective Randomized Double Blind Trial
Investigator(s)	Dr. Ian Lo, University of Calgary
Funding Period	2019-2021
Budget	\$54,040.00
Issue/Rationale	Rotator cuff tears are a common cause of pain and disability in the adult shoulder. Rotator cuff tears generally involve the tendon coming detached from the bone within the shoulder. In order to re-attach the tendon back down to the bone, surgeons have to prepare the bony surface to create a healing environment which can be done mechanically (using burs and shavers) or with heat (using cautery). Nobody (to our knowledge) has ever studied if the way the surgeon prepares the bone bed affects the outcome of the surgery.
Objective(s)	We are randomly assigning patients who are undergoing arthroscopic rotator cuff repair (and who meet the study criteria) to either mechanical preparation or coblation preparation. Post-surgery we will examine if there are different outcomes on shoulder specific quality of life questionnaires, if there is a different rate of healing on post-operative MRI, and if one type of preparation is faster than the other.
Anticipated Results/ Impact	If the results show that one type of debridement is more efficient than the other, while producing equivalent (or better) clinical and anatomical results, the overall efficiency of each and every rotator cuff surgery will be improved. Making rotator cuff repairs more efficient would result in less time under anesthesia for the patients, less time in the OR for surgeons, and more cases through each operating day, thereby reducing wait times and getting injured workers repaired sooner.
Keywords	rotator cuff, mechanical bone debridement, coblation debridement, QuickDASH, arthroscopic