

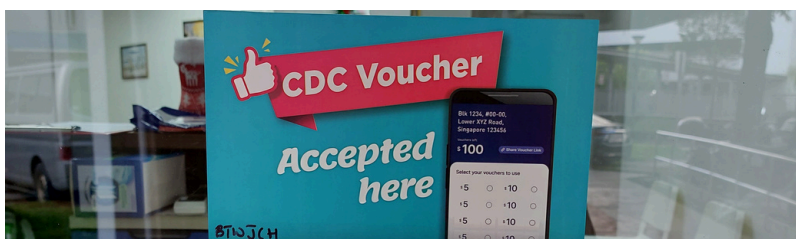


IN THIS ISSUE:

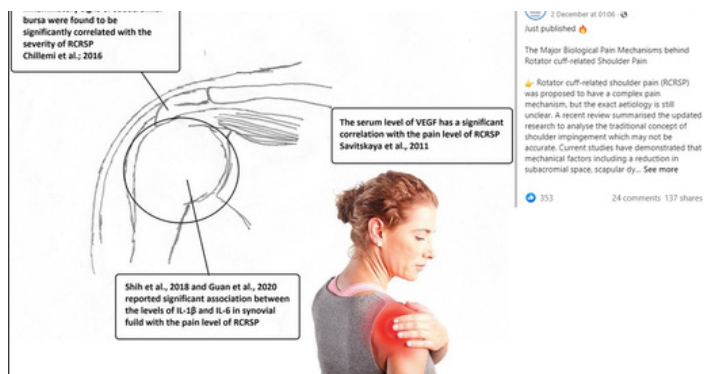
- 01 About Our Work
- 02 Our academic work
- 03 Clinical Corner

ABOUT OUR WORK

Proudly the first physiotherapy provider to join the MaNaDR, a health care network which comprises about 600 clinics and 1500 doctors. Our clinic is also qualified and readily accepts CDC vouchers for payment. Now Family Care Physiotherapy Clinic accepts direct payment from MaNaDR, CDC vouchers, Mednefits and ANVIL groups.



OUR ACADEMIC WORK



The major pain source of rotator cuff-related shoulder pain:
A narrative review on current evidence

Chi Ngai Lo¹ | Bernard Pui Lam Leung^{2,3} | Grant Sanders⁴ |
Megan Wai Ming Li⁵ | Shirley P. C. Ngai⁶

¹Family Care Physiotherapy Clinic, Clementi, Singapore

²Health and Social Sciences Cluster, Singapore Institute of Technology, Dover, Singapore

³Rheumatology, Allergy and Immunology, Tan Tock Seng Hospital, Singapore, Singapore

⁴Sanders Chiropractic and Fitness, OhioBainbridge, USA

⁵Private Practice, Singapore, Singapore

⁶Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Kowloon, Hong Kong

Correspondence

Chi Ngai Lo, Family Care Physiotherapy Clinic, Bldg 612, #01-290, Clementi West Street 1, Singapore 120612, Singapore.
Email: lochiangai@gmail.com

Abstract

Background: Rotator cuff-related shoulder pain (RCRSP) was proposed to have a complex pain mechanism, but the exact aetiology is still unclear. A recent review summarised the updated research to analyse the traditional concept of shoulder impingement which may not be accurate. Current studies have demonstrated that mechanical factors including a reduction in subacromial space, scapular dyskinesia and different acromial shapes are unlikely directly contributing to RCRSP.

Aims: Since the precise RCRSP pain mechanism remains unclear, the aim of this narrative review is to discuss possible sources of pain contributing to RCRSP according to the mechanisms-based pain classifications.

Results and Discussion: Research findings on potential mechanical nociceptive factors of RCRSP are conflicting: investigations of neuropathic and central pain mechanisms of RCRSP are limited and inconclusive. Overall, available evidence has indicated moderate to strong correlations between RCRSP and chemical nociceptive sources of pain.

Conclusion: Results from current research may provide new directions for future studies on the aetiology of RCRSP and its clinical management towards a biochemical view instead of the traditional mechanical hypothesis.

With an impactful collaboration, another academic research was published along with the Singapore Institute of Technology and Hong Kong Polytechnic University. The research unearthed that Rotator cuff-related shoulder pain is most likely the result of a change in the biochemical factors rather than the ancient idea of mechanical irritation.

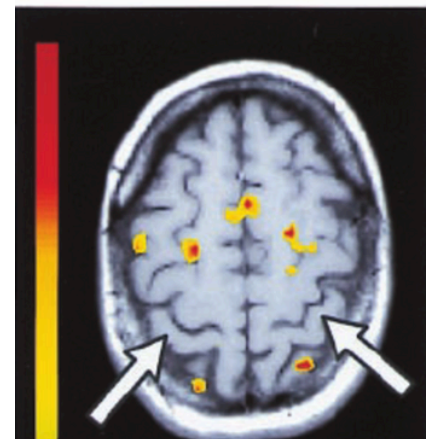
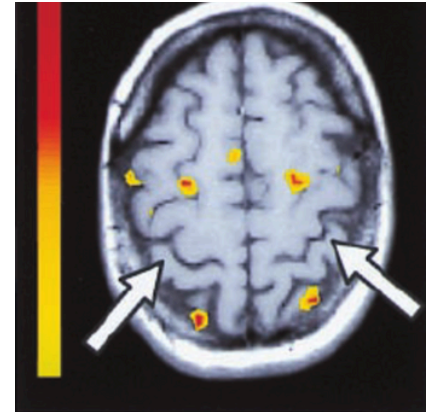
Three scientific articles were published by our Principal Physiotherapist Christopher Lo in 2022.

- Lo, C. N., Leung, B. P. L., Sanders, G., Li, M. W. M., & Ngai, S. P. (2022). The major pain source of rotator cuff-related shoulder pain: A narrative review on current evidence. *Musculoskeletal Care*.
- Lo, C. N., van Griensven, H., & Lewis, J. (2022). Rotator Cuff Related Shoulder Pain: An Update of Potential Pathoetiological Factors. *New Zealand Journal of Physiotherapy*, 50(2).
- Lo, C. N., Leung, B. P. L., & Ngai, S. P. C. (2022). The Usefulness of Serological Inflammatory Markers in Patients with Rotator Cuff Disease—A Systematic Review. *Medicina (Lithuania)*, 58(2), 301.

CLINICAL CORNER

From a physiotherapy perspective, muscle inactivation is a concept incompatible with weakness. When patients suffer acute and chronic pain, the relevant body part's corticomotor excitability will be reduced (Cavaleri et al., 2021; Ngomo et al., 2015). This is also a protective mechanism by the body. Therefore, it is very difficult for patients to activate their muscles normally when they are in excruciating pain. Furthermore, corticomotor depression is less likely to associate with pain severity and will not spontaneously recover after the pain. For this reason, we provide muscle training for those patients after injury or pain, to relieve them of it.

Physiotherapy management for muscle inactivation includes motor imagery training which directly targets the inactivated muscle, Proprioceptive Neuromuscular Facilitation (PNF), followed by standard muscle strengthening.





ABOUT US




Our Physiotherapy Clinic was established in August 2021 and has been providing physiotherapy services for many conditions.

Get in touch with us!

 fcphysioclinic@gmail.com

 +65 9840 5033

 **Visit our Clinic at:**
Blk 612, Clementi West Street 1
#01-290, S120612

Reference

Cavaleri, R., Chipchase, L.S., Summers, S.J., Chalmers, J., Schabrun, S.M., 2021. The Relationship Between Corticomotor Reorganization and Acute Pain Severity: A Randomized, Controlled Study Using Rapid Transcranial Magnetic Stimulation Mapping. *Pain Med.* 22, 1312–1323. <https://doi.org/10.1093/pm/pnaa425>
Ngomo, S., Mercier, C., Bouyer, L.J., Savoie, A., Roy, J.-S., 2015. Alterations in central motor representation increase over time in individuals with rotator cuff tendinopathy. *Clin. Neurophysiol.* 126, 365–371. <https://doi.org/10.1016/j.clinph.2014.05.035>

