

CLIMBERS WRIST

WHY DOES MY WRIST HURT AND
FEEL UNSTABLE?



WHY DOES MY WRIST HURT?

The wrist is a complex region of the body consisting of 8 small bones, several small joints between these bones and two larger joints at the wrist and forearm. It is a common area for pain and injury in climbers because of its complex anatomy and biomechanics.

But, it is often not well managed in a climbing population for several reasons. Firstly, many healthcare professionals do not commonly spend much time in their initial training learning about the wrist and hand. Secondly, it is relatively uncommon for a healthcare professional to specialise in climbing medicine and so many are often under prepared to manage this special population.



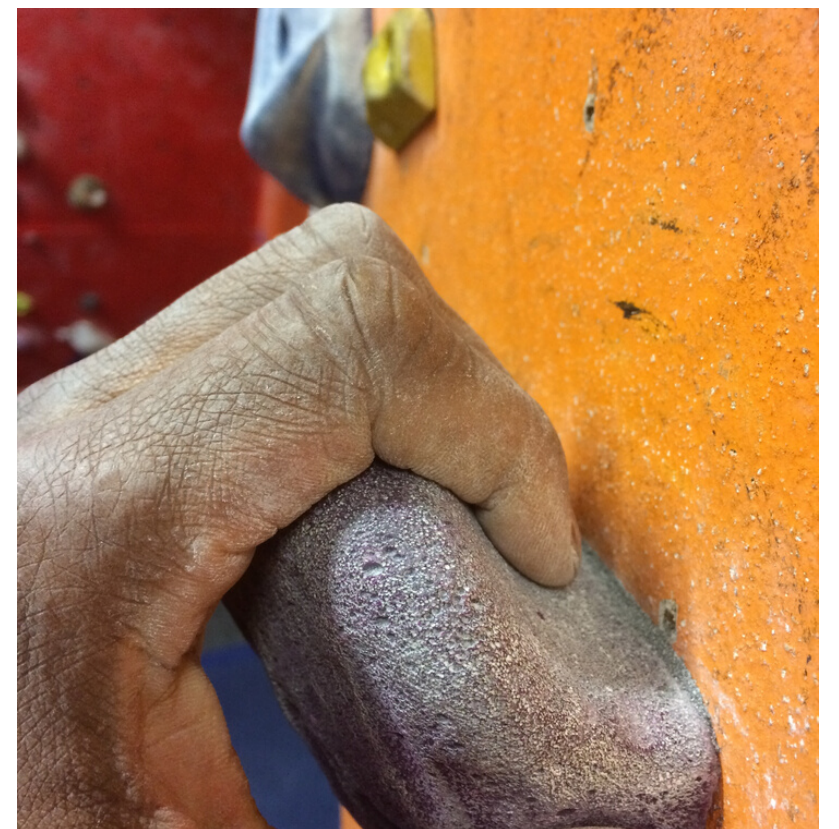
WHAT IS HURTING?



The Triangular Fibrocartilage complex (TFCC) and mid carpal region is often injured in climbers and can be a significant problem if not correctly diagnosed and managed. The TFCC is a collection of structures located in the wrist joint on the same side as the little finger.

It lies between the ulna bone and the carpal bones. These structures are very important for optimal hand function. The complex is a major stabiliser of the wrist joint.

FUNDERMENTAL ANATOMY



The wrist and hand complex is made up of a collection of bones called the carpus in the wrist and two long bones, the radius and ulna. The ulna and radius make up the roof of the wrist joint.

The TFCC is called a complex because it houses several important structures that help to stabilise the radial carpal joint and radio-ulna joint. This includes the ulna meniscus, ulna collateral ligament, carpal ligaments and the extensor carpi ulnar tendon sheath.

WHAT CAUSES THE INJURY ?



In non climbing populations it is common to injure this complex after a fracture of the radial and ulna bones. In a climbing situation it can be injured after a fall onto an out stretched hand. However, it is far more common to overuse this complex during repetitive use causing low grade persistent wrist pain and instability.

It is often injured when there is either a distraction force at the wrist and forearm, (essentially forces which pull these bones apart) such as when hanging off large slopers. It is also injured when wrist compression is combined with rotation or twisting such as when mantling a hold.

HOW DO I KNOW I HAVE IT ?



The pain is usually located on the back of the wrist on the side of the little finger. If the injury is traumatic there may well be swelling, dis-colouration and it will be painful to use the wrist and hand for normal daily activities. In the chronic overuse situation, it may well be tender over the wrist when pressed and it will be tender when twisting your wrist to the side (ulna deviation).

It may clunk or pop and that may be associated with pain when the wrist is stressed. Your grip strength will be reduced and the wrist may pop and clunk when shaking someone's hand suggesting wrist joint instability. Climbing slopers and mantling will be painful.

WHAT IF MY INJURY IS ACUTE ?



In the acute situation: this needs to be managed with a trip to accident and emergency because large tears may require surgery. Therefore, it is best to be seen in the minor injuries unit where a referral can be made to fracture clinic for a review with a hand surgeon. This raises an important point, it is important to ensure that your referral is to a hand surgeon and not a general orthopaedic surgeon who dabbles in hand surgery. It goes without saying that one is a specialist and one is not!

WHAT IF MY SYMPTOMS ARE LONG STANDING ?



In the chronic situation the initial treatment of choice is to avoid the type of holds that aggravate your symptoms. "This is just survival" Because you want to continue climbing, but don't want to make the situation worse. So it is wise to avoid slopers in the short term because they tend to separate the wrist joint. Again, movements that involve mantling often involve compression and twisting stresses at the wrist joint.

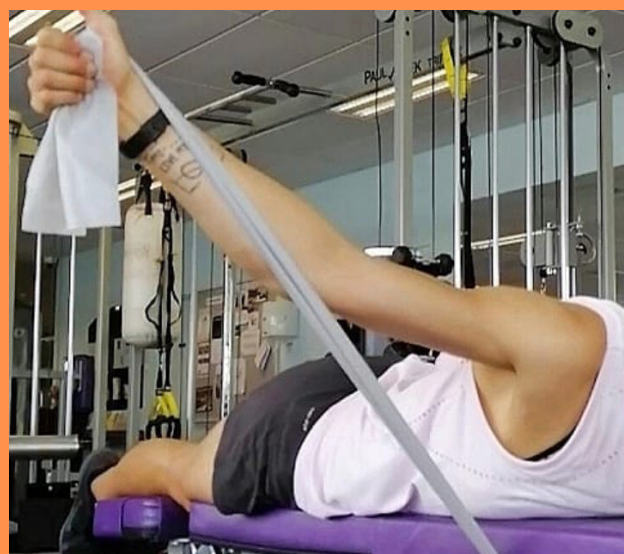
To manage this problem effectively it will require a few months of activity modification and a structured rehabilitation programme to regain the gross stability of the wrist joint.

Beware of the physiotherapist or hand therapist that does not prescribe a comprehensive rehabilitation programme! Ultrasound, a few stretches and taping of the wrist, no matter how fancy the colour simply won't cut it!

WHAT SHOULD MY TREATMENT LOOK LIKE THEN?



SHOCK WAVE THERAPY



STRENGTH TRAINING



CLIMBING REHABILITATION

Phase 1

This could last from two weeks to a month or longer depending upon the severity of the condition. To reduce the pain and to restart the healing process in the injured tissues that has failed to heal we use shockwave therapy.

Shockwave therapy delivers high intensity sound waves into the injured tissues. This leads to increased blood flow, cellular activity and stimulation of collagen (ligament and tendon tissue) and ultimately pain relief.

If the soft tissues are restricted at the upper elbow and contributing to restricted wrist movement and suboptimal hand function then it is a priority to treat it.

Equally, it may be wise to begin improving other areas of muscle strength loss while waiting for the acute pain to settle (such as the shoulder rotator cuff, postural and hip muscles). Improving the climbers general athletic ability is important for reducing the loads through the wrist and hand.

Phase 2:

As soon as symptoms have improved a guided rehabilitation program should be initiated and is the hall mark of a successful outcome. The first goal of rehabilitation is for the climber to re-gain full and painless wrist/ elbow range of movement.

At this point, progressive muscle conditioning and wrist stability exercises are introduced to the rehabilitation program. Initially the wrist is trained in safe pain-free positions and then eventually taken into high load provocative environments.

As pre-injury strength and stability return, a progressive increase in resistive exercise load is added to the training program. The aim of this phase is to make the climber stronger and more robust than the pre-injury level, because pre-injury muscle, ligament and tendon strength proved vulnerable to overload.



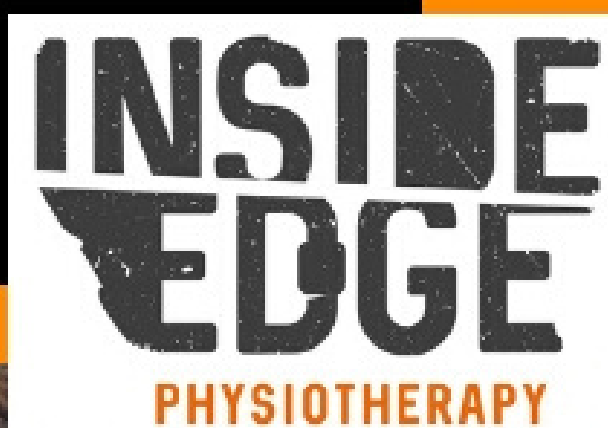
THE FINAL STAGE

Phase 3

In this phase the aim of the programme is to enable the climber to return to climbing safely with a graduated climbing programme in terms of duration and climbing grade. This is where many climbers get it wrong! The pain gets better and they return to climbing without a load management schedule and wing it! This often leads to a gradual increase in symptoms over several weeks.

Or the climber is stuck climbing easy grades at or below their on sight indefinitely, because every time they try to push their grade the pain returns. Often, many climbers need a longer period of low intensity climbing under the watchful guidance of a physiotherapist for longer than they think!

The climbers weekly climbing schedule is a part of their wrist loading programme in addition to formal wrist strength training with specific exercises. The programme must be customized to the needs of the climber and their climbing goals (e.g. bouldering, sport climbing, climbing holidays planned and/or competitions etc.).



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