

LATERAL EPICONDYLE

BRACHIORADIALIS

1

2

3

MEDIAL EPICONDYLE

4

PRONATOR TERES

5

FLEXOR CARPI ULNARIS

DODGY ELBOWS

CLIMBING DOCTOR JULIAN SAUNDERS' SURE-FIRE CURE FOR CLIMBING'S MOST ANNOYING AILMENT

BY JULIAN SAUNDERS

MORE RECALCITRANT THAN

Castro, though less charismatic, elbow pain is the most common and debilitating of chronic climbing injuries. It might be called golfer's or tennis elbow, but it is climbers (and professional knitters) who are most likely to suffer the travails of blown-out elbows.

How many climbers do you know who have had elbow pain for long periods? They trawl desperately through web forums into the wee hours of the morning: Someone must know something.

In fact, elbow pain is often easily explained. The bony lump on the inside of your elbow is called your medial epicondyle (Latin for small lump on inside of elbow), and the one on the outside is called your lateral epicondyle (Latin for small lump on outside of elbow). You get golfer's elbow on the inside lump (even if you don't play golf) and tennis elbow on the outside lump. I've never seen a golfer with golfer's elbow and only one person who got tennis elbow from playing tennis. Go figure!

The vast majority of pathologies that affect your elbow fall into two categories—tendonitis and tendonosis. Tendonitis is an inflammatory condition arising from acute aggravation, e.g., gardening or scrubbing holds

for a number of hours when you are not accustomed to it. Tendonosis is a degeneration of the tendon cell itself, arising from microtrauma inflicted by a muscle that is too strong. Tendonosis may be preceded by tendonitis—one morphing into the other—or it can occur separately. Unfortunately, most get diagnosed as tendonitis when they are actually tendonosis. The upshot: your elbow broods away like the bed-buddy you dropped so you could climb more in the first place.

For climbers, the cascade to injury usually starts with chronic overload. The classic scenario is a sudden increase in training. The muscle, having a greater blood supply, is able to increase its strength faster than the tendon, leaving the tendon comparatively weak. Further use leads to tendon damage and degeneration.

SYMPTOMS OF GOLFER'S AND TENNIS ELBOW

This is only a guide and self-diagnosis is always tricky at best. That said, here are some basics. Tendonitis elicits a sharp pain, felt around the medial or lateral epicondyle. It tends to worsen with activity to the point that you may have to stop the session. Left to its natural course (without aggravating activity), it should resolve in a few weeks. Tendonosis, on the other hand, is a dull ache (same place) that is felt at the start of climbing. As you warm up, the pain eases and, combined with a football-sized pill of denial, you are lulled into thinking all will

be fine: week after week after week. Alas, as you cool down, the pain of tendonosis is inexorable, returning like the rash you caught as a rampant teenager.

Unfortunately, diagnostics are rarely that simple, and the two conditions may “bunk up,” causing maximum confusion for the practitioner and exquisite pain synergism for you. Other symptoms may occur on a regular basis, though these vary considerably. For golfer's elbow it may be washing your hair, or other mundane activities. For tennis elbow—using your mouse, undoing jar lids, blah blah blah. The pain associated with these tends to be short and sharp. Note the frequency and severity of the symptoms; they will be valuable markers of how your recovery is progressing.

LOGISTICS

The two major muscles that flex your fingers and the two muscles that flex your wrist (along with quite a few more) originate from a common tendon, which attaches to your medial epicondyle. Each muscle loads the tendon quite differently. The wrist flexor on the little-finger side, called flexor carpi ulnaris (FCU), is usually the pesky one. For the avid climber this has serious ramifications.

Injury often has a lot to do with technique, and elbows are no exception. There are marked biomechanical differences in how the forearm muscles respond when crimping and open-handing. The load on the FCU when you are crimping is far greater than when slapping up slopers.

TRADING IN OPTIONS

► TREATMENT ACCORDING TO DR. J



ELBOW BRACES ARE CRAP ► In fact, they can cause harm. They reduce pain by [a] offsetting load that would otherwise pass through the offending tendon tissue and [b] warming up the tissue faster, thereby reducing the pain when you start your session. Do you still have the problem? Of course you do. Braces are a big Band-Aid. Additionally, the neighboring tissue often becomes afflicted.

STRAPPING TAPE ► Though an ineffective treatment, tape looks cooler than a brace. Useless.

ULTRASOUND ► If you go to a physical therapist who uses ultrasound on this pathology, it is because the person either doesn't know what it is, doesn't care what it is, or thinks it is something else (for which ultrasound probably does nothing).

ANTI-INFLAMMATORY DRUGS

[CORTISONE AND NON-STEROIDAL] ► Tendonosis is not inflammatory, so why use anti-inflammatory drugs? As for tendonitis, these drugs can be effective. However, if it is pure tendonitis then it will go away of its own volition if you just stop pissing it off.

BLOOD (AUTOLOGOUS) INJECTIONS ► This is the jailbait of medical interventions ... young, looks good and is low maintenance. Unfortunately no one is sure if it works.

PROLOTHERAPY ► A lot of web pages espouse the benefits of injecting a sugar/water solution into the tendon (supposedly to increase blood perfusion), with very little peer-reviewed science. I would try blood injections before I tried this.

CREAMS ► Tiger Balm and all subspecies are skin irritants that increase blood flow to an area, making it all warm and fuzzy. More blood is arguably a good thing. Does it make a difference? In this case, probably not.

MAGNETS ► Some people swear they had overnight recovery, while others just attracted a lot of scrap metal.

ACUPUNCTURE ► Dunno. 2,000 years of refinement is in your favor.

FISH OIL OR OTHER NATURAL/NUTRITIONAL THERAPIES ► Expensive urine is all the rage in the last decade. Supplements undoubtedly have a place in many conditions. Are they a cure? No. The fashionable Omega-3 rich fish oils, and the chic new kid on the block, glucosamine, may be of assistance. But it is theoretical only. Would I take them? Sure.

SURGERY ► Even the surgeons don't recommend this one.

Translation for the afflicted (or soon to be)—decrease the amount you crimp. A lot!

Two groups of people crimp: beginners—because it feels stronger—and those who never grew out of it. Two groups of people crimp significantly less: those who naturally evolved, and those who injured themselves crimping.

Some very specific training can help strengthen the affected tendon (see sidebar). Besides

reducing the propensity for injury, climbing open-handed will automatically give you greater endurance (that's another article on its own). Thus the benefit to your climbing career will be twofold.

Tightness in the upper forearm, specifically the brachioradialis (BR) muscle (see illustration), can also be a concern. Pain that is dull in nature, annoying rather than debilitating, and is

[MEDICINE]

over the upper and outer aspect of your forearm, is usually a chronically strained BR. Get a friend (enemies are more effective ... up to a point) to give it a good old ironing out with their elbow. Better still, pay someone (massage therapist, roller, chiropractor) who knows how to do it; things that are free are usually worthless. Stretch your BR out a few

times a day (see the photos below that look like sadomasochistic ju-jitsu). Be careful not to let your elbow bend during the stretch. Hold for 25 seconds and repeat three times.

Other conditions afflicting the elbow are mostly rare and not worth mentioning. That said, they do exist and can be nasty. ... No, they can be extremely nasty. If

you are concerned, see a doctor, or see another one.

One hundred percent of climbers who have attended my clinic for manual therapy and monitoring, in conjunction with the exercise program, have recovered. I have, at times, e-mailed the program to grovelling overseas climbers. Of these, about 60 percent recover. The program needs to be individually tuned, predisposing physical factors corrected, and bad climbing habits dropped.

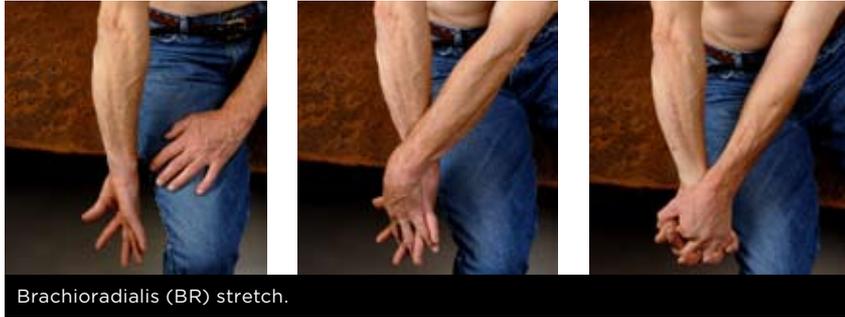
Fine-tuning the exercises is paramount. The angle of your wrist and elbow can dictate success or failure. If the exercises are not aggravating the condition (that is correct, you read "aggravating") while you are doing them, change the angle of your elbow. Somewhere between 90 and 135 degrees should make you purse your lips, narrow your eyes and mutter a familiar "Oooohhhh."

A good osteopath or physical therapist will be able to address any bio-malfunctions in your rig. Tightness in your shoulder, for instance, can lead to overload at your elbow.

Manual therapy involves *deeeeeeep* tissue massage from the medial epicondyle down through the muscle belly. It will make you screw your face up as if you just ate a lemon.

The campus board is an elbow-consuming, reptile-devouring device. Do it if you must. But when your elbows have had the life siphoned from them, get the rubber hose that respectable gyms keep behind the front counter, and beat yourself Fight Club style, all the way to the ER. ■

Dr. Julian Saunders is an Australian climber and osteopath specializing in climbing injuries.



Brachioradialis (BR) stretch.

OURAY COLORADO

VISIT

Ouray during the 06/07 ice climbing season and experience Switzerland in America, and some of the best ice conditions in the world.

Thanks in advance for supporting these Ouray businesses that graciously support the climbing community.

SCHALLA JEWELER

- Unique custom design jewelry
- Jewelry & watch repair

• The finest in platinum, gold and gemstones

Open 7 days a week, closed Christmas and New Years Day
 Located in the historic Beaumont Hotel
 505 Main Street, Ouray • 970.325.0287
www.schallajewelers.com

HISTORIC WESTERN HOTEL

SALOON RESTAURANT

OURAY'S BEST LODGING AND DINING PRICES @ OURAY'S BEST PRESERVED HISTORIC SETTING.

Rooms \$39 & \$49 Suites \$79
 Stone oven pizza pies
 70 of world's best beers-great margaritas

- AFFORDABLE GOURMET DINING • HISTORIC LODGING • WEDDINGS • MEETING ROOM • GUIDED TOURS

A TRULY AUTHENTIC OLD WEST HOTEL & SALOON RESTAURANT WITH THE FACE ON THE BARROOM FLOOR ... AND ALL THE SPIRITS, TOO!

Mentioned in Rock & Ice #159, January 2005

WWW.HISTORICWESTERNHOTEL.COM
OURAYJEEPTOURS@YAHOO.COM
888-624-8403 • 970-325-4645

35th Year JOHN LESNEFSKY REAL ESTATE

YOUR OURAY CONNECTION

635 Main Street • P.O. Box 125
 Ouray, CO 81427

Office: 970-325-4663
 Fax: 970-325-4488
 Toll Free: 877-837-2228
 Email: realestate@ouraynet.com
 Website: www.ourayrealproperty.com

YOUR OURAY CONNECTION

Ice Park Members get 20% off

Next visit: receive an extra 5% off with this ad!

800-846-8729
ouraylodging.com

THE OUTLAW RESTAURANT & COOKOUT

The oldest operating restaurant in Ouray, owned by the Bonatti Family since 1937. The Bonatti Family immigrated from Italy in the 1900's and is now owned and operate by Christina Bonatti. Christina is related to the famous Alpinist Mountain Climber, Walter Bonatti; her father's third cousin.

We were voted best steak in Ouray County in 2005/06; recognized by the *National Geographic Traveler*, *The New York Times*, *Sunset Magazine* and other periodicals.

Our menu includes steak, the biggest crab legs on the Western Slope, fish and pasta dishes. A full bar and a nice wine list. Our prices range from \$15 to \$36 a plate and wine from \$5 to \$8.50 a glass.

We have a lot of memorabilia hanging on our walls; an autographed hat and picture from the Duke, a brick from Indy Speedway, plenty of Colorado 500 jerseys and shingles from the famous to our best customers.

970-325-4366 • www.outlawrestaurant.net
 610 Main Street, Ouray, Co 81427

SAN JUAN MOUNTAIN GUIDES, LLC

PERSONALIZED, PROFESSIONAL INSTRUCTION AND GUIDING IN THE ART OF CLIMBING.

THE LOCAL EXPERTS

970-325-4925
WWW.OURAYCLIMBING.COM

The Historic Wiesbaden Hot Springs Spa and Lodgings

"A PLACE OF UNEQUALLED AMBIENCE."

Continually flowing natural hot springs
 VAPORCAVE, outdoor pool and private Lorelei.

As seen in *Travel & Leisure*, *The New York Times*, *Sunset*, and many other publications ...

888-846-5191
www.wiesbadenhot springs.com

THE PROGRAM ▶ Recovery usually takes several months. Most people have had the condition for years, so this is a small investment. Compliance with the regimen is essential.

Procure yourself a dumbbell. They tend to breed under beds, hibernate in closets, lie in wait for unsuspecting toes under reams of laundry, and gracefully age in the garage. 



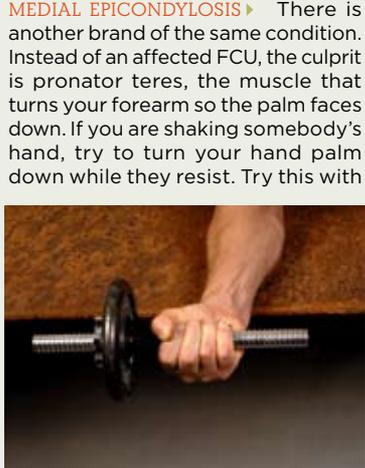
MEDIAL EPICONDYLOSIS ▶ For medial epicondylosis, place your wrist, palm up, over the arm of a sofa, or better, the edge of a desk, with enough clearance for your hand to lower and not touch anything. Take the dumbbell and tilt it so that your little finger is slightly higher than your thumb, and your wrist is fully flexed. With your arm and shoulder relaxed, lower the weight as far as you can. This should take about five seconds. Relax your grip and, with the other hand, lift the weight back into position. *Do not use the hand you are exercising.* We

are interested in an eccentric load (a.k.a. negative contraction) only. This will stimulate the tendon to strengthen without putting too much duress on the muscle. How? The muscle is about 40-percent stronger when contracting eccentrically. Hence, it is not stimulated to strengthen to the same degree as the tendon. Because the tendon has a vastly smaller blood supply, gains in strength take longer.

Note that your thumb is on the same side of the bar as your fingers. Gripping the dumbbell in the usual manner with such a

heavy load can give you an overuse condition called DeQuervain's tendonitis, which causes swelling on the back of your forearm, just above your wrist.

Most male climbers use between 15 and 25 pounds, depending on size and strength. This is not a competition, so park your ego in the garage. The best climbers don't necessarily lift the heaviest weight. The only important factor is that you are tired at the end of 10 repetitions. Do three sets in the morning and three sets at night. Take two days off per week.



MEDIAL EPICONDYLOSIS ▶ There is another brand of the same condition. Instead of an affected FCU, the culprit is pronator teres, the muscle that turns your forearm so the palm faces down. If you are shaking somebody's hand, try to turn your hand palm down while they resist. Try this with

your elbow at 90 and 150 degrees. Resistance of this motion will often produce a sharp pain. With your arm on the desk and weight only on the top end of the dumbbell, lower it from vertical, going no further than horizontal. With the other hand, lift it back into position. Do not use the hand you are exercising. This exercise is more sensitive to elbow angle so be sure to refine the position for maximum aggravation. For both exercises, you will need to refine the position regularly, though it will probably not change too much. The resistance can be altered by your hand position on the dumbbell; higher up, less resistance. Again, you want to be fatigued at the end of each set.

LATERAL EPICONDYLOSIS ▶ This is the same as for the FCU variety, except your palm faces down during the exercises, and you can grip the dumbbell with your thumb on the opposing side of the bar. This condition is not really a climbing injury.

It may be aggravated slightly by climbing, usually pinching, but it is primarily a computer and mouse injury. I see one of these for every 20 cases of medial tendonosis, and they are almost exclusively victims of technology.



CONCLUSION ▶ After the evening exercises, ice the elbow for a few minutes a few times. There is no evidence that any specific ice protocol works better than another, so please yourself. Every study I have ever read said sex was good, so I assume it to be beneficial for this injury as well.

If you have had tendonosis once, it typically means you have a predisposition for the condition. Doing the exercises two or three times a week should keep it at bay. If you feel it returning, up the frequency.

GREAT GEAR. GREAT DAYS.



Mountain Hardwear GTX 2.5 jacket with GORE-TEX® PACLITE® fabric technology

Outerwear made with GORE-TEX® fabric is the most tested in the world.

But the most crucial test is how you feel at the end of the day.

This and every other jacket design that uses GORE-TEX® fabric must endure hours of testing and be pelted with gallons of water.

There can be no leaks, no drips and no excuses. Only then can it

carry the GUARANTEED TO KEEP YOU DRY® promise.

Shop for great gear at gore-tex.com



It's a great day.