

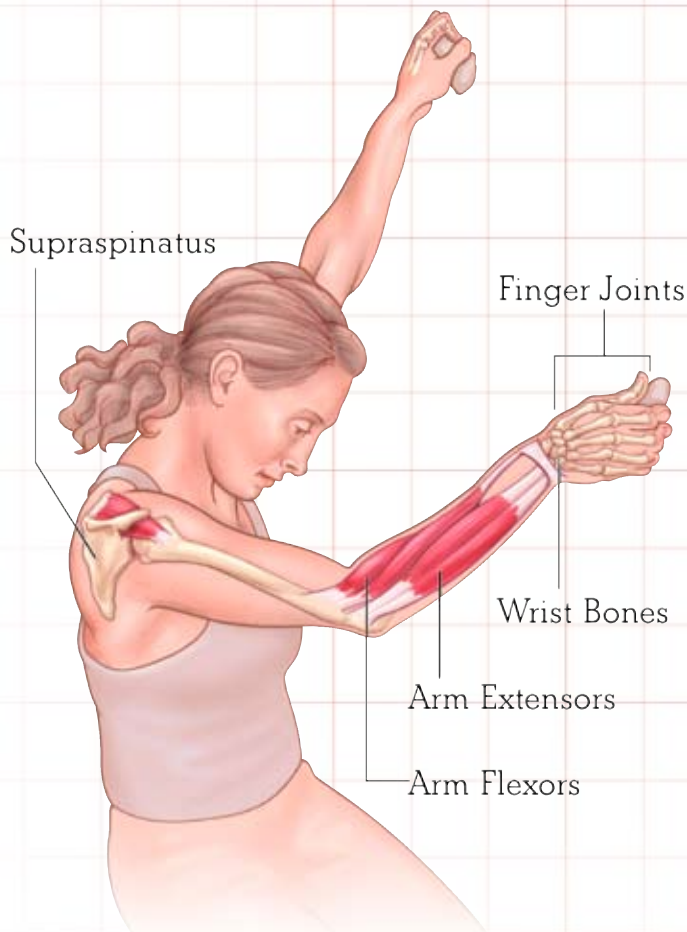
WHERE IT HURTS

Common injuries and causes

By Julian Saunders • Illustrations by Steve Graepel

ALL SPORTS PRODUCE INJURIES, but climbing causes an inordinately broad range. You can screw your knee as easily as your shoulder, and fingers are no safer than ankles. Most injuries will heal given time and rest, but tell me a climber who is patient and I will tell you a thousand who are not. Fast healing is about tailoring the way you train and climb, avoiding aggravation and, where needed, getting some professional help. Half an hour in the right office might save you six months sitting on your ass and getting piles.

There are a few red flags, as medicos like to call them, that should prompt you to see your physician. If you have pain and don't know why, or if you have significant pain at night, are losing weight inexplicably, have lumps or bumps that arrived uninvited, numbness or pins and needles and muscle wasting, then see a doctor. Dreams happen. And so do tumors.



FINGERS

- Pulley injuries
- Stress fractures
- Synovitis/capsulitis
- Trigger finger

Finger injuries account for the majority of injuries, and most of these are pulley related [see Medicine, No. 148], while the most under-diagnosed are stress fractures [see Medicine, No. 166].

Pain and swelling that is joint specific (e.g., a hand-shake hurts) is likely to be just that: an inflamed joint. Technically, it's called synovitis and/or capsulitis. Often arising because the joint is too tight to start with, these two conditions respond well to aggressive rotary stretching (bend your finger a little and twist it ... hard). It will feel wrong, but you are unlikely to hurt anything.

Occasionally, a cyst may grow in a tendon, and if it's in the wrong spot, it can cause pain when pressed against the rock. Ironically, it is the bigger holds that cause the most problems, as cysts are common around the base of the finger. "Trigger finger" is when a cyst in one of the tendon flexor tendons gets caught up in the opening of the flexor sheath, into which the tendon slides. The finger becomes painlessly stuck in a flexed position, and pops out with some extraneous pressure. There are loads of medical options, none of which are very helpful.

WRIST

- TFCC (compression; ulna variance)
- Midcarpal instability
- Lunate subluxation
- DeQuervane's

The wrist is a masterpiece of anatomical engineering and under normal loads rarely gives any gyp. But with the massive traction and shearing forces generated by climbing, some of these small bones can become displaced, especially in the middle and little finger side. If pain builds dramatically overnight, this is the probable cause. Giving your wrist a very firm wiggle up and down (by grasping over the back of your hand with your other one) may produce a pronounced click, and much pain relief. Correcting a lunate subluxation (one of the middle bones) is considerably more difficult. Go see

your friendly manual therapist (Doctor of Osteopathy, physical therapist, chiropractor).

Pain in the wrist on the little finger side may be accompanied by a tear in a small disc of cartilage (known as the triangular fibro-cartilage complex) that prevents the end of your ulna from hammering the carpal bones on that side. If there is a clicking or marked pain when you flex your wrist sideways, away from your thumb, and move it into flexion and extension, this is the likely culprit. [See Medicine, No. 148]

SHOULDER

- Rotator cuff tear / tendonitis
- Labral tear
- Dislocation
- Bursitis
- Impingement of nerve in quad space
- Suprascapular nerve palsy
- Biceps tendonitis
- MS

The shoulder is the most difficult joint to diagnose. It has, however, become slightly easier with fancy imaging techniques such as MRI. Tendonitis and tears of the supraspinatus muscle (one of the four rotator-cuff muscles) comprise 80 percent of all shoulder injuries and are usually easily rehabilitated with strengthening exercises.

Shoulder dislocation is not a permissible torture technique outside of Guantanamo Bay, but even Mother Nature can be as brutal as the C.I.A. Proprioceptive exercises to re-educate the muscles that control shoulder stability are highly effective in preventing further dislocations. Surgery has been a continuing experiment with some excellent results and some not so excellent. If the damage is extensive, surgery followed by rehab is your best option. Good luck!

Wasting of any musculature around the shoulder (in fact, anywhere at all!) requires immediate attention. Local nerve entrapments and disc injuries can cause permanent damage. And then there are pathologies like Multiple Sclerosis to be considered ...

ELBOW

Elbow pain is almost always a tendonitis of the flexors or extensors. Next in line would be a brachioradialis strain.

[See Medicine, No. 156.]

Though common in the knee and rare in the elbow, osteochondritis desicans of the latter would seem to be more prevalent in climbers. It is usually exclusive to teenagers, who approach climbing with the diligence (and time!) of youth. Usually there is a locking sensation at random times when moving your elbow. That is because there is a bone chip cruising the inside of your joint, and at times acting like a wedge between the articulating surfaces. Surgery—don't like it. But since we are not on the Starship Enterprise, the arcane art of slicing flesh will have to suffice.

GROIN

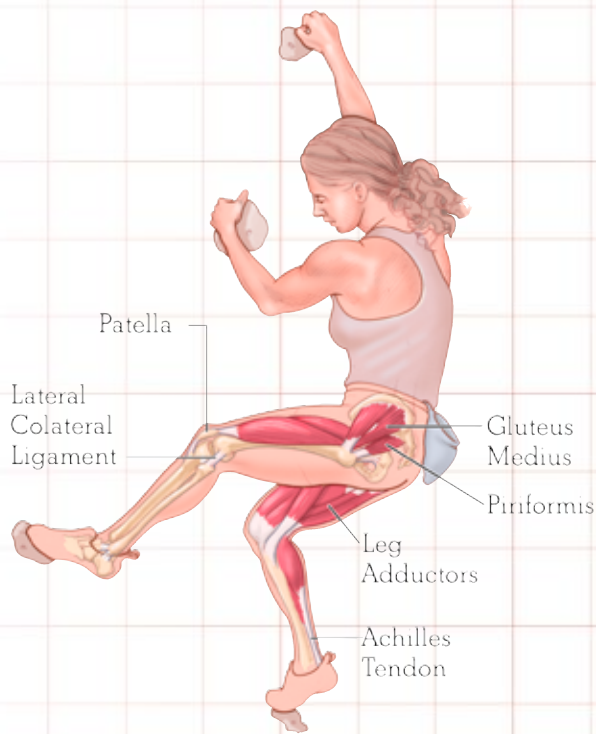
- Osteitis pubis

There are myriad pathologies in the region, some you definitely don't want to talk about, let alone see, but only a few that afflict climbers. Additionally, they are often route specific, and arise from acute overuse. An adductor tendonitis (AT), or minor tear in the belly of the muscle, is the most common. Rest and massage (that's correct, get someone to give it a rub!) are the best remedies. Prolonged fridge-squeezing maneuvers with your feet may produce osteitis pubis in climbers. This is a combination of AT, bone stress and, infrequently, stress fractures in the front of your pelvis. The pain pattern is complex and depends on what combination of pathologies you have. Similarly, treatment will vary and must be individually tailored. Apart from massage, light stretching, an eccentric weight program and acupuncture could all help. Cortisone is over-rated and ineffective long term.

KNEE

- Meniscus tears
- Ligament tears
- Osteoarthritis
- Lateral fibular restraining ligament
- Osteochondritis desicans
- Tumors
- Patella tracking issues
- ITB friction syndrome
- Infrapatella fat pad impingement

That little rapsallion the knee is like the heel cup of many climbing shoes—not as well designed as it probably



could be. There are three bones, four major ligaments, two kidney-shaped pieces of cartilage, and a textbook full of plausible injury combinations. A patient last month, executing a simple heel hook, snapped her ACL and MCL, partially tore her LCL and coronary ligaments, and ripped her medial meniscus to the point of having to have it surgically removed ... and she was not even trying! The knee can cascade through a series of tears in milliseconds.

The two most common injuries occur in two separate ligaments. The first is to either of the collateral ligaments, typically torn while doing a drop knee. The pain is acute on one side of your knee about half-way back.

The second is a small ligament that anchors the head of the thin bone, the fibula, to the side of the tibia at the knee (the knuckle-like feature on the low outside knee). Rocking onto the side of your heel, with your knee pointing out to the side, puts enormous stress on this ligament. It is more common to fully rupture this ligament than tear it. And it goes off with a bang. Literally. You will hear a crack, like you cracked a finger knuckle, but much louder. Heel-toe maneuvers will be fraught with pain for several months after. Rest is about all you can do. Icing it will often produce significant pain as a small nerve runs around this

articulation, known as the superior tib-fib joint.

HIP

- Sciatica
- Tumors
- Femoral head necrosis
- Osteoarthritis

Hip pathologies are usually reserved for crusty old buggers who have nothing better to do than terrorize the footpaths in motorized wheelchairs. A few unfortunate young ones will succumb, outliers on the bell curve of hip victims (probably motor-heads fleeing to the future!). Tendonitis, particularly that of gluteus medius, and the odd bursitis, pop up infrequently, but there are no injuries especially curious to climbers. Usually pain around your hip comes from tightness in the hip stabilizers, such as the piriformis. A *deeeep* rub with an elbow is often highly therapeutic, positively painful and reasonably cheap. Yoga is a great adjunct to most therapies, but for the hip is a standout.

Pain is often referred to the hip from distant tissue, mostly the low back or pelvis. Referred pain is troublesome, and will need a professional eye.

ANKLE

- Lateral ligament strain
- Avulsion fractures
- Fractures
- Morton's neuroma
- Some forms of arthritis
- Achilles tendonitis

- Retrocalcaneal bursitis
- Big-toe arthritis

Aside from ligament injuries associated with rolling your ankle, or fractures from landing on it, only a few ailments are common to climbers (see Medicine, No. 151). Swelling and/or pain on the back of the heel is usually either Achilles tendonitis or retro-calcaneal bursitis. As per all tendonoses, the pain will subside as you warm up and return as you cool down. The best treatment is heavy eccentric loading to the calf muscle. If the skin is red and a bit (or very) puffy, your ailment is likely of the bursitis genre. Shoes are made tight, and though bursitis was endemic in the 1990s, some climbers still believe that neo-Chinese-footbinding will help your climbing. Crikey! The world has moved on. Catch up! The tighter the shoe, especially the sling of the heel cup, the more likely you are to suffer bursitis. Like fitting a bra, make sure the cup fits. Squashed feet, like pumped-up tits, may give the impression of more control and look attractive to some, but this is not sustainable. Aside from rest and more salubrious shoes, ice is the best remedy. Try Cortisone only if the swelling flatly refuses to piss off.

HEAD AND NECK

- Acute tauticolis
- Disc bulge / prolapse
- Thoracic outlet syndrome
- Osteoarthritis
- Facet strain
- Belayer's neck

When in doubt, head and neck trauma require hospital attention. If consciousness was lost or your friend is acting a little funny, you have no option. Most people will not want to go. It is the responsibility of your friends to drag you off. Yes, it will affect your climbing day. So will brain damage.

Belayer's neck "sucks the pus," as my sister likes to say. Put any joint in an extreme and sustained position, and it will hurt. I am not aware of any research, nor have I noticed any correlation myself, with certain types of neck injuries in climbers. Whiplash, disc prolapse, osteoarthritis, strains and sprains all happen in a normal population. Aside from prescriptive stretching, which will help most injuries, treatment requires professional attention. Even stretching will

aggravate some situations. If you have any nerve-related symptoms, such as numbness or pins and needles in your arm, you will need to seek a professional diagnosis.

THORACIC SPINE

- Sprained rib joint
- Vertebral joint sprain
- Sherman's disease

LUMBAR SPINE

- Facet strain
- Disc bulge / prolapse
- Spondylolisthesis
- Sacral torsion / SIJ strain

Active climbers tend to suffer few back issues, in general, on account of having substantial core strength. Rib strains, however, are arguably more common; not surprising given the massive cross forces running through the upper torso and the fact that the ribs are long bones attached to the spine by small joints. Rib injuries usually start with a minor tweak, an inordinately small but sharp pain on the side of your spine, in your mid- to upper-back. Within a few hours, you will feel like a python has you in a Full Nelson. Breathing in is about as comfortable as having your nipple caressed with a wire brush. Certainly one of the more painful conditions I have experienced.

Do what you can, but the best combination is massage, hard, along the side of the spinous processes (the lumps on your spine), over the most painful zone. Add a good cracking by an osteo, chiro, or a trained physical therapist

and you should be able to manage a tentative chuckle quite soon.

SACRAL TORSIONS

Last century, according to Western medicine, the sacro-iliac joints were non-moveable articulations, bonding the sacrum between your illia. This century, apparently, they are virtually peripatetic. Medical knowledge is always under renovation, and sacral torsions are the new bad boy in the building, usually acquired by trying a heel hook over and over and over. The pulling on one side of your pelvis twists the sacrum slightly, and the many muscles that attach to it conspire to hold it there. Sharp pinching in one of the bony knuckles above your butt cheeks, especially when rolling over in bed or bending forward, is the most common symptom. Time is a great healer, if you are a stoic mo-fo. It is no surprise in a country with a "user-pays" mentality that money is also a great facilitator of healing. Personally, I am for social medicine, but there is precious little I can prescribe for this outside of spending some bucks. Self-manipulation is difficult, not to mention the value of getting an accurate diagnosis.

Frequent medical contributor Julian Saunders is a Doctor of Osteopathy specializing in treating climbing injuries. He writes a regular column for Rock and Ice (see Ask Dr. J on page 72).

