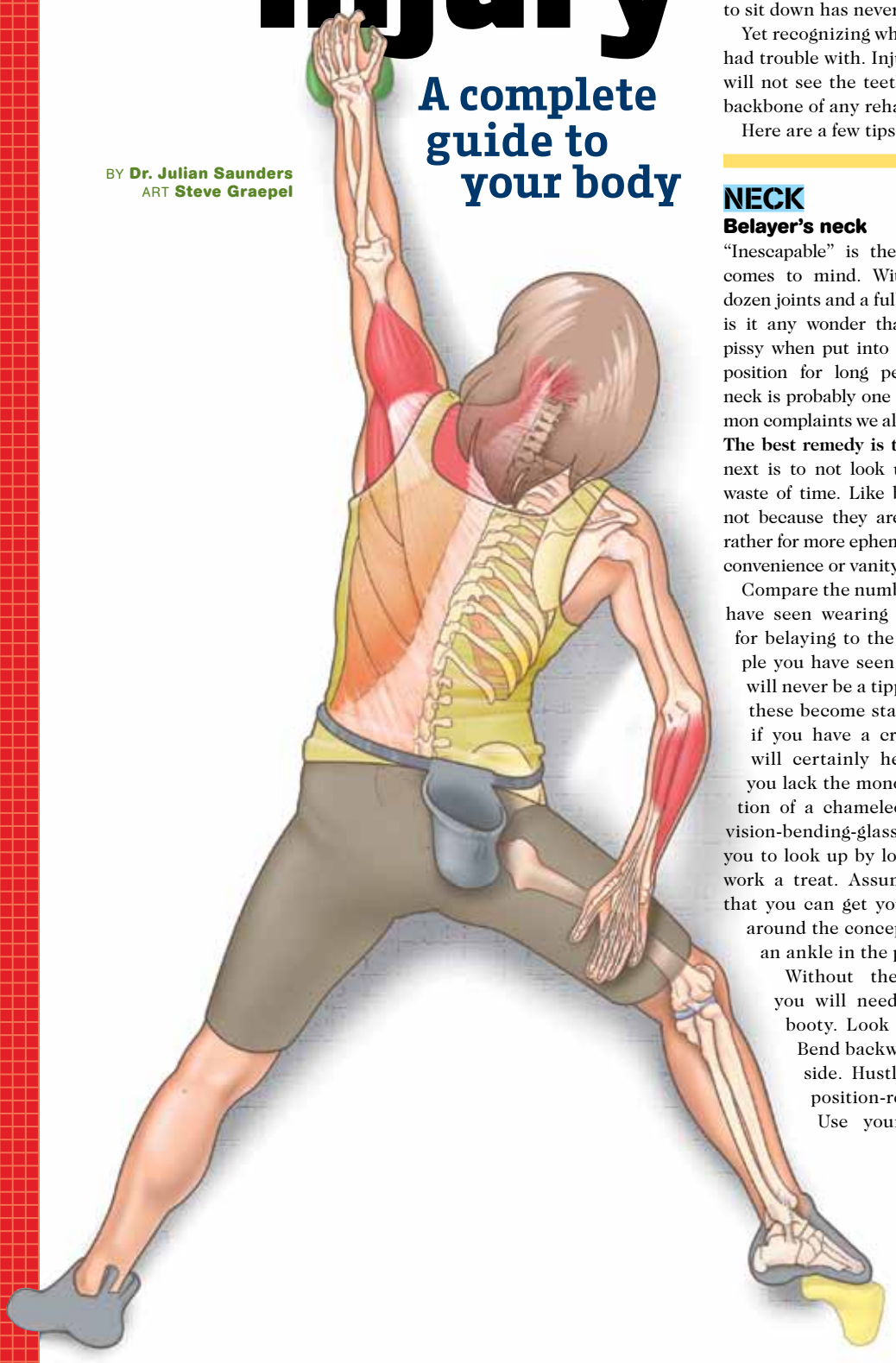
# Avoiding Injury

## A complete guide to your body

BY **Dr. Julian Saunders**
ART **Steve Graepel**



### Snap! Bang! Grind! Ow, FUBAR!

Oh, the mellifluous sounds of injury. Their regularity forms the leitmotif of *Modern Climbing: the Musical*. If you get into the groove, you will end up dancing the Charlie Foxtrot.

As training and preparation move into a different league of professionalism, injury prevention becomes a game of musical chairs—picking the right time to sit down has never been more paramount.

Yet recognizing when to turn around is a trick that even Houdini ultimately had trouble with. Injuries typically approach by stealth. Most of the time you will not see the teeth until you get a whiff of bad breath. Prevention is the backbone of any rehabilitation program. To be warned is to be armed.

Here are a few tips for avoiding the lions.

## NECK

### Belayer's neck

"Inescapable" is the first word that comes to mind. With more than a dozen joints and a full case of muscles, is it any wonder that the neck gets pissy when put into a hyperextended position for long periods? Belayer's neck is probably one of the most common complaints we all hear at the crag. **The best remedy is to not belay.** The next is to not look up. Braces are a waste of time. Like bike helmets, it's not because they are ineffective, but rather for more ephemeral reasons like convenience or vanity.

Compare the number of people you have seen wearing a neck orthotic for belaying to the number of people you have seen belaying. There will never be a tipping point where these become standard issue, but if you have a crappy neck they will certainly help. Likewise, if you lack the monocular coordination of a chameleon, those funny vision-bending-glasses that enable you to look up by looking down will work a treat. Assuming, of course, that you can get your visual cortex around the concept and not break an ankle in the process.

Without the paraphernalia you will need to shake your booty. Look up. Look down. Bend backward. Lean to the side. Hustle like you have position-related ADHD. Use your eyeball muscles! Position your neck at different angles regularly and only as much as you have to. Optimize your stance such that you reduce the extension factor. For instance, in a cave you can turn around to face out instead of craning your neck to look up and back.

## SHOULDER

Albeit the shoulder is called a ball-and-socket joint, it is more like a basketball-and-tea-saucer joint. Underpinning control is a finely tuned disaster-mitigation plan.

### Rotator cuff tears

The rotor cuff is the group of muscles and tendons that stabilize the shoulder. The rotator cuff sounds like one thing, but it is really four muscles.

Diagnosing rotator-cuff tendon tears in a sore shoulder is like identifying egotism in politicians: nine times out of 10 you will be right.

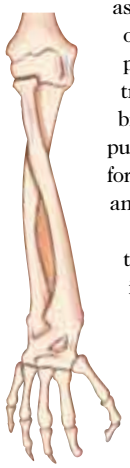
More than any other area the musculature of the shoulder does well with a good warm-up and an ounce of intuition. If you think you might be hurting your shoulder, you probably are. Instead of trying to stick the gaston one more time, do something else.

### Labrum

The labrum is the socket of cartilage in which the ball of your armbone rests in your shoulder. Relatively common and debilitating, a labral tear can be a by product of another shoulder trauma such as a dislocation or torn rotator cuff, but it can be a stand alone and is one of the few good reasons for shoulder surgery. That said, **more than two-thirds will settle with some tender, loving physical therapy.**

### Dislocations

The pain of a dislocated shoulder is not dissimilar to the demise of Fanny Mae and Freddie Mac—eye-opening-ly quick, accompanied by tornado-like damage. Fractures are common. Like a Russian sub, you won't see it coming until carnage rains on your parade. On the other hand, if you have had a dislocated shoulder before, you live in fear of a repeat every time you brush your hair, let alone go near a cliff. Surgery is an ongoing experiment for which the general population is a willing guinea pig. You will have little choice if you suffer recurrent episodes *and* have tried stability-based exercises first. **Subluxations (an "almost" dislocation) often precede the full monty and will feel like the joint shifted.** Warning shot! Your shoulder is not strong enough to complete the move (usually something that puts your arm above your head and your shoulder in a horrible, twisted position) in a controlled fashion. **Recalibrate the movement or get stronger**. Shoulder stabilization programs using an exercise ball can be especially effective at reducing the risk of dislocation.



## ELBOW

### Medial epicondylosis

Most of the muscles that control finger and wrist flexion attach to the bony lump on the inside of your elbow via a common tendon. If this tendon is not capable of withstanding the forces generated by the muscles anchoring to it, the tendon becomes damaged and may develop into tendonosis. I see climbers with this ailment in epidemic proportions! Learn how to open hand. If your elbows are getting a little sore, minimize crimping. Some people will get away with behaving like Rick Perry with a six-shooter. Most will need to be slightly less gung ho. **Open hand more. Crimp less.**

### Ulna collateral ligament (UCL) rupture

*Ka-Pow!* This one is like a bullet through the middle of your meditation class. For a moment you will refuse succumbing to this outward distraction. "It means nothing," you will say. "It missed me!" you will chuckle. Oh-no-it-did-not-you-silly-git. The biggest blows are rarely painful in the moment. At T12 hours, you will know what I mean. Virtually every case I have seen has involved a lapsed climber returning to fitness or a strong boulderer getting pumped … and chicken winging. So, to avoid a UCL rupture, **keep your elbows down**. Contemptible advice from me, really, since I am a true flapper. I ruptured the left and right in the same year.

## FOREARM

### Tendon junction tear

Imagine your four fingers as they enter your palm are the four tendons (each controlling one finger) as they attach to the end of the muscle. If you leave one finger long and pull the others tight into your palm the tension between the tendons as they transition into the muscle is a little like the webbing between your fingers, but more so. Gently pull on that finger (especially the ring finger) while forcibly contracting the other fingers into your palm and feel the strain in your forearm!

This is actually the testing procedure if you think you may have injured this tissue. I am pushing the moniker of the "*Dr. J Test*" as I feel it is my only opportunity for academic recognition. But still no one has called from the Nobel Prize Institute. I guess they lost my mom's nomination.

**Rule number one: if you are pulling on one, two or even three fingers, do not pull the neighboring fingers tightly into your palm simultaneously.**

## WRIST

### Triangular fibro-cartilage complex (TFCC)

The TFCC is a small disc of cartilage that sits between the end of the ulna and the carpal bones on that side of the wrist. Climbers are prone to tearing it by virtue of large traction and shearing forces when pulling on large, round holds. Some people call them slopers. I call them voluptuous.

The worst thing you can do is to work a sloper problem over and over, or at least one particular move. Typically you don't feel it in its full glory until the next day, but you always have an inkling that what you are doing is not right. **If you have to give your wrist a "therapeutic" shake after an attempt—*back off!***

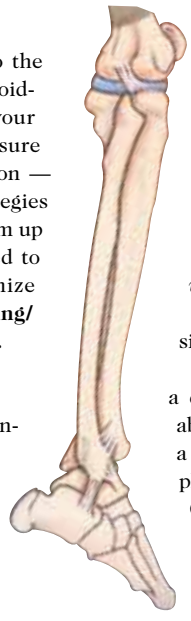
## FINGERS

### Pulleys

Synonymous with climbing, tears to the pulley apparatus are virtually unavoidable if you are vaguely pushing your limit. Taping as a prophylactic measure is like masturbating with a rubber on — pointless. The best avoidance strategies are to stretch your fingers often, warm up well (on a few moderates, as opposed to a hard route you have wired), minimize crimping, and **be careful when splitting/overloading fingers on quirky holds.**

### Stress fractures

Caused by sudden increases in training with regard to finger loading, e.g. campusing twice a week with no build up, stress fractures will have you sitting down for much longer than you'd like. Bones that are still growing are more susceptible to stress fractures. Parents, you are the ones with the brains, so at times you will need to be your kid's handbrake. Pay attention: **Pain in the shaft of a bone that worsens in any given session is a red flag**. Ladies, you need to watch your calcium intake and in particular your menstrual cycle. A sporadic or absent cycle is a harbinger of bone trouble. When in doubt, eat little fish … bones an' all!



## KNEES

### Meniscus tears

Pushing on a twisted leg will seem innocuous until it's suddenly not. Some positions are worse than others, for instance pressing up from a heel rock over, (i.e. your lower leg is twisted out and you try to stand up), or conversely driving out from a drop knee. Twisting your knee to end range and then trying to extend it causes the cartilage to become caught between a bone and a hard place, often resulting in a tear of the cartilage discs within. **Pushing your knee to the limits of a wishbone will only lead to the ripping of flesh and ultimately will not get you past the fact of your piss-weak biceps.** Go to the gym and get stronger so you don't have to overload your knees in contorted positions.

### Scratches

More embarrassing than painful. That said, small infections may cascade to become septicemia if you are stuck many weeks from medical attention or in Idaho. **Use Batman or Barbie Band-Aids.**

## ANKLES

### Impact trauma

The twin crash-test dummies of modern bouldering. Safety is explored by dipping your ankles into Mother Earth much like a teenager doing a pregnancy test—it's all fine until it's not.

Climbing shoes, because they compress the foot, make the chance of severe injury (particularly fractures) more likely. Impact forces are transferred through the bones rather than the connective tissues that surround them.

If you want a dose of risk mitigation, check out the Trifecta Middle video on my web page (drjuliansaunders.com). Take two pills of *UvoiDunce* every morning before shouldering your pad.

I'd like to say: "If you think there is a possibility of carnage, then stop, back up."

But with multiple fractures in one ankle and a dislocation in the other, I can hardly advise abstinence. Allay risk at every turn if having a smashed ankle is inconvenient or you simply can't stop yourself from trying. Use a pad. **Choose spotters on the basis that size counts.** As it does. For everything. ■