



# Healthstuff...

## LOOKING AFTER YOUR BACK

JOHN BROWN BSC (HONS) MCSP MIA  
YJOHNBROWN@YAHOO.CO.UK

Structuring climbing can generally be said to be a low level activity for most of us, with periods of inactivity interspersed with the occasional need to suddenly pull really hard. This combination means that injury to your back will not be of a repetitive nature (as with the majority of the general populace) but a specific strain or sprain.

assumptions have been made in this article:

'workplace' is, for you the mountain or the wall.

You are generally fitter and stronger than the general populace. Most articles about back pain are written.

You have a passing interest in knowing how your body works and some anatomy.

This is not a training or improving performance article.

Back pain is an injury to your spine and is covered extensively in countless articles so it will be talked about here. For more information visit [www.healthstuff.co.uk/conditions/back-pain](http://www.healthstuff.co.uk/conditions/back-pain) or your GP or local physiotherapist for a lower back problem.

Attention to your upper back is less common but the relationship between the large muscles used in climbing and thoracic spine makes climbers



ROUNDED SHOULDER FLAT BACK

prone to trauma and pain in this area.

Your thoracic spine extends from the little bump at the base of your neck to (in effect) your waist. It consists of twelve vertebrae and each have a rib attached which create a cage to protect your heart and lungs and a frame to provide support to muscles. Virtually all the twisting movement in your back is done by your thoracic spine.

You have many spinal muscles – try to think of them in layers:

- Deep – muscles attaching between vertebrae.
- Intermediate – muscles attaching between vertebrae and other structures ie quadratus lumborum (QL) and rhomboids.
- Superficial – your big 'visible' muscles which cross your joints and move your limbs ie. latissimus dorsi (lats) and the trapezius (traps).

Determining which muscles you have injured is best left to a professional but to avoid injury you can adopt some simple strategies:

Identify activities which are likely to cause you a problem (I've done some below) and incorporate an injury avoidance activity such as a warm up and/or mobility exercise:

- Juggling up a rope – easily avoid injury by jogging to the top of a crag, some light arm work such as tying a rope then jogging back down.
- Spotting – if done as part of the session you may just have led a warm up routine so no problems there.
- Hauling – more difficult this as you have probably spent the preceding period sat waiting for your client to overcome the problem so we need to consider other strategies.
- Coiling a rope – at the end of the day, tired? Make sure you do it over your neck to avoid putting a relatively small load through a long lever.

Wear your harness correctly – your waist belt is designed to provide support to your lumbar region in the event of the harness being weighted. Wearing it too low (as is often the case) will put excessive strain through QL.

Consider direct belays – semi-direct belays particularly cause a lot of twisting and you may find yourself working with heavy loads at your end range. Sat on the edge with the ropes to your side giving a quick 'boost' to your client will put strain through your deep and intermediate spinal muscles.

Use a chest harness – I always carry one and use it if I am to enjoy an extended period of time hanging in a rope.

Look at your posture in standing and sitting:

- In standing, are your strong climbing muscles causing you to develop a rounded upper back or flat lower back (Figure 1), winging scapulas (Figure 2) or protracted scapulas causing you to 'ape' (Figure 3)? These are all signs of muscle imbalance and could lead to recurring injuries.
- When sitting, avoid positions where your knees are higher than your hips as when sat on a rucksack discussing gear. This tilts your pelvis back and stretches your QL and deep spinal muscles and puts more emphasis on your superficial muscles to maintain your posture.
- Avoid carrying too heavy a load – even for 'training' purposes. Most back pain is a result of long term repetitive damage so avoid.
- Know how to fit your rucksack correctly. There is a bit of a quandary here because it is often useful to wear the waist belt of your rucksack above your harness rather than

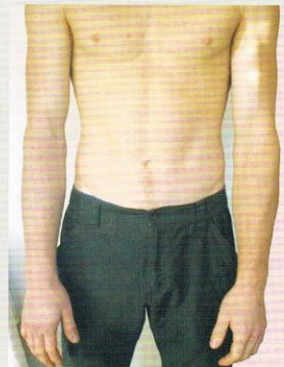
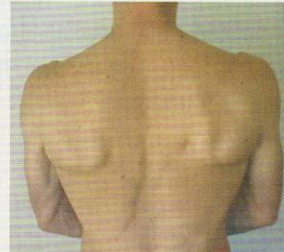


FIGURE 2 (TOP): WINGING SCAPULA  
FIGURE 3 (ABOVE): APEING

around your pelvis just above your hips – hopefully at these times the rucksack is relatively light and won't put too much strain on your back.

As practicing climbers we actively seek to put our bodies through stress for enjoyment; most of the time we do not exceed the limits of our body's tissue tolerance – but sometimes we do and, when we do, we still have to go to work and we do not have the luxury of 'light duties'. Maintaining our fitness and strength not only makes us healthier and less prone to injury but ensures our clients' safety and, with this in mind, you must consider injury avoidance as a professional responsibility.

DANNY BROWN HAS BEEN A FULL TIME INSTRUCTOR SINCE 1990 AND MIA SINCE 2003. NOW PART TIME PHYSIOTHERAPIST AND PART TIME INSTRUCTOR DELIVERING COACHING AND COURSES INCLUDING MLTE CWA AND CWLA VIA [BEYONDTHEEDGE.COM](http://BEYONDTHEEDGE.COM) PHONE: 07929 834 693