

# LOW BACK PAIN IN RUGBY

**R**ugby is a fast-moving, high impact sport. Whatever your position on the field, your back has to withstand loads that normal daily activity would never demand. You may also be exposed to traumatic injury from a fall in a tackle or an accidental kick in the back during a ruck. Excluding a traumatic injury where you may sustain a fracture or bone bruising, the lower back may be the *source of pain*, but rarely the *cause of pain*. The leading cause of pain is often due to a lack of mobility, poor core strength, poor tackle or scrum technique. These issues result in the lower back being over-stressed and eventually breaking down. When this happens, you could experience one of the following injuries:

- 1 Muscle strain or ligamentous sprain** - a muscle strain, and an injured ligament will usually resolve itself in 2-4 weeks. Symptoms may range from a minor ache to a sharp debilitating pain. Most sprains and strains are localised in the lower back region, meaning pain does not radiate into the buttocks or leg.
- 2 Disc injury** - the lumbar intervertebral disc acts as a spacer between adjacent vertebrae and works as a shock absorber. If excessive or abnormal stressors are placed on the disc, tears can occur, and the inner jelly-like substance can bulge out of the disc or even rupture the disc. Discs degenerate with age and lose their shock absorbing ability. Disc problems can irritate or compress spinal nerves causing pain, often radiating pain into the buttocks or the leg (sciatica).
- 3 Altered joint mechanics or motor control** - the brain can completely change the lumbar spine's ability to move just by changing which muscles are firing and in what order. This can occur in the absence of any visible injury. These altered motor control or

joint mechanics can begin as a protective mechanism, but can lead to chronic problems over time.

- 4 Degenerative arthritis** - with over-use, abuse or ageing, spinal joints can become arthritic. Bone spurs and osteophytes can develop. Stenosis, the narrowing of the canal that houses the spinal nerves, is a very common problem with arthritic changes.
- 5 Bone fracture** - stress fractures and pedicle fractures (spondylolysis) are common problems in the lumbar spine.

## MANAGING BACK PROBLEMS

If you're currently experiencing pain or potentially even an injury, you can manage it in a few ways.

- 1 Hands-on physical therapy** treatments can help mobilise the joints and soft tissues around the lower back
- 2 Massage therapy** can relieve tight structures and muscle spasm
- 3 Electrotherapy** and/or **dry needling** can provide lower back pain relief
- 4 Kinesio-taping** and **hold/cold therapy** can also be successful in pain relief
- 5 Exercise therapy** can improve flexibility and strengthen any muscle weaknesses.

Firstly, don't continue to play rugby through an episode of low back pain, taking time off will allow your back to heal more quickly. Secondly, you should continue to stretch and strengthen your back at all times, not just when it is painful.

## HOW CAN YOU PREVENT BACK PAIN?

### Your Body

- 1 Hips and thoracic spine:** being agile on the field, passing balls, and changing direction requires great rotational mobility, which should come from the

joints in the body that are designed to rotate ie. the hips and the thoracic spine. Creating optimal movement in these areas, should be your first line of defence against lower back pain. If the lower back is forced to repeatedly rotate it's only a matter of time before an injury will occur. It is important to remember that the hips and thoracic spine do not operate in isolation. Ankle mobility can affect the hip joint and the shoulders work with the thoracic spine in rotation.

- 2 Core strength:** The abdominal muscles may be the most important and the most neglected muscles. These muscles promote posture and balance and provide support to the spine. Core weakness results in increased strain on the lower back especially during rotational movements associated with rugby. Being able to sustain postures in a scrum requires core strength and endurance. Your physical therapist can assess your joint flexibility and muscle strength and give you exercises to improve both.

- 3 Warming up:** Running onto the field after sitting for the first 20 minutes of a match or going straight into a practice from work or class is probably the quickest way to strain your back. A thorough warm-up is critical for your muscles to get ready for the game. Overall, muscles that have been stretched and gradually loaded are much less prone to being injured and can take more stress before being strained.

## YOUR TECHNIQUE

Ensuring your coach is teaching you safe and proper scrum postures, tackle and falling techniques will go a long way to reducing your risk of developing lower back pain.

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