



HIKING E-BOOK

How to make it hurt less....



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Article one: Lower Back Pain – Causes

Most of us have either experienced low back pain ourselves or know someone who has – which is hardly surprising given that it is estimated that 70% of the population will have an episode of low back at some stage in their life.

Causes of Low Back Pain

Most cases of low back pain are not serious, although the diagnosis of the exact cause of the pain can be very difficult. There are really only a few causes of low back pain that can be definitively diagnosed. These are in general the more serious causes such as fractures, systemic pathologies (eg. Cancer, kidney infection, aneurysm) or nerve root compressions. Fortunately these causes of low back pain are much more rare and most commonly most people will experience what is termed 'non-specific low back pain' or 'simple mechanical low back pain'. This term may sound vague and unclear, and it is! This is because it is almost impossible to definitively diagnose the cause of most cases of low back pain. There are many structures in the low back that may be responsible for causing pain. These include:

- ligaments of the spine
- joint of the spine such as the z-joints
- the intervertebral discs which lie between each vertebrae
- the muscles of the low back, particularly the smaller ones around the spine

Because of the complex way in which our bodies are designed, and particularly our nervous systems, it is almost impossible to differentiate between the many different structures as pain sources.

What if I Have Low Back Pain?

If you have low back pain that lasts more than a couple of days then it is a good idea to get it checked out by your osteopath, physiotherapist, chiropractor or your doctor. They may seem to ask you a lot of questions, but generally these are aimed at eliminating the possibility of one of the serious causes of low back pain. While we know that most commonly low back pain isn't a serious condition, there are times when it may be an indicator that medical attention needs to be sought quickly. If ever you experience low back pain accompanied by paraesthesia (an absence of feeling), bowel or bladder changes, a fever or weakness in your limbs, please see your GP or local emergency department.

Research has shown that of the most important things to do if you do have low back pain is to make sure you keep moving! Physical activity has been shown to be one of the best ways of dealing with low back pain, while bed rest is one of the worst!

How Do I Prevent Low Back Pain?

Stay active, stay strong and remember to stretch!

Article Two: Lower Back Pain in sailors- Prevention

There is a well bandied around statistic that 80% of people will experience some back pain in their lives. It is very common in recreational as well as elite sailors. To investigate this I have gone straight to the expert in the area: Donna White.

Donna White has been the physio to the AST and Olympic teams since 2002. As well as Olympic class sailors Donna regularly treats keel boat, skiff and board sailors. The most common area she has to treat for pain is the lower back and she is currently researching into the causes of lower back pain in dinghy sailors.

Q-Why is back pain so common?

Donna:

I believe that unlike many other sports such as soccer, football or tennis, sailing has been seen for a long time as a recreational activity not 'a sport'. As such our young or older sailor tends not to train to maintain fitness and strength. Even though a day on the water competing can take a number of hours of hard physical work and puts incredible strain on the lower back, I rarely see sailors warming up prior to the start of a race or completing a few cool down stretches on the shore after. In my experience sailors rarely think of their own individual technique or posture, the main focus of performance outcome is on the "fitness" of the boat, and how it is tuned to perform, rather than the sailor.

I see sailors everyday in my clinic who are surprised to learn that they need to warm up their muscles before sailing, or strengthen their back and abdominal muscles if they aim to hike out of a laser for any length of time, or grind hard or race across the wings of a skiff. Poor posture /technique and poor strength and fitness would be the most common causes of back pain that I see in sailors. Rarely do I see acute onset pain unless a sailor has lifted incorrectly or twisted suddenly.

Q-What can make it worse?

Donna: Ignoring it and hoping it will go away. Always seek the advice of a healthcare professional, especially if you have any nerve pain, pain in your legs or difficulty using your bladder or bowel.

Q-What would be the top three things a recreational sailor would do to avoid getting lower back pain?

Donna:

1.GET FIT

Tune your body as you do your boat. Invest time and energy in yourself. The fitter you are the more able your back will be to stand the demands of recreational sailing.

2. CORE STRENGTH

Your spine is like your mast, it needs strong muscles or stays all around it to support it. These muscles are called your core muscles. Research tells us that strong core muscles reduce the reoccurrence of lower back pain by 50%! The exercises are simple and easily taught by a physio or gym instructor.

3. POSTURE / TECHNIQUE

Got back pain and not sure why? Check your posture. Your spine should sit centrally on your pelvis, a little like the mast sits on the hull. The problem could be due to your desk set up at work, try not to slump and allow your "hull" to tip placing stress on your mast /spine, and take regular breaks. Ask a coach to review how you move on the boat as opposed to how the boat moves. I see many dinghy sailors who try to get as far out of the boat as possible when hiking in order to keep the boat flat. However due to poor technique/muscle control/fitness they lose their posture and overload their lumbar spine and complain of pain.

Donna concludes with:

We all need to listen to our backs and seek help when we start getting symptoms. There are a number of reasons why an individual can be in pain and it is best to be assessed thoroughly so not only do you have an accurate diagnosis and thus the most appropriate treatment but also learn how to prevent it happening again! Donna White can be contacted at her practice in Seaforth in Sydney on 9907 0321.



Article Three: Meralgia Parasthetica. Why can't I feel my leg?

Here's a question I get asked a lot around one design keel boat regattas where the crew hikes from behind life lines (as opposed to hiking out from foot straps dinghy style). I find it quite common in Sydney 38s and Farr 40's where the crews hike very hard with the upper body extended from the lower life lines.

The pressure from the lifelines cause impingement of a sensory nerve, most likely the Lateral Femoral Cutaneous nerve of the thigh. This nerve is a sensory nerve, which means it supplies sensations back to the brain via the central nervous system. It runs from the spine around the abdomen and down the outside of the thigh. This condition is known as Meralgia Parasthetica. Big scary words but what does this mean?

It's cause by pressure over the nerve, particularly where it passes under the inguinal ligament, just below the ASIS (anterior superior iliac spine) the bony prominence on the front of your hip bone.

If there's a lot of pressure being put through that area it compresses the nerve and results in pain or loss of feeling on the outer side of the thigh, occasionally extending to the outer side of the knee, with people often describing a burning sensation, tingling, or numbness in the same area. Other people often note pins and needle like feelings extending down towards the feet. It is usually only on one side of the body and is more sensitive to light touch than to firm pressure. These symptoms are due to partial damage to the nerve and often gets worse as the day progresses. Not very pleasant!

How do we avoid this? The best treatment is to remove the cause of the compression by modifying your actions and position. The following may be helpful:

- Rest periods to interrupt long periods of aggravating activity- move around as much as you can during tacks and between races
- Weight loss in overweight individuals
- Core and trunk exercises to strengthen abdominal muscles
- Padding it up might be a good idea to relieve the pressure around the front of the hip

Basically you want to take off as much load as possible from just under the ASIS. Changing position slightly whilst hiking should also ease the feeling of numbness but this might be difficult to do at times! It may take time for the pain to stop and, in some cases, numbness will persist. In severe cases a combination of local anaesthetic and non steroidal anti-inflammatory medications can be administered.

In persistent and severe cases, surgery may be needed to decompress the nerve but be aware this treatment could result in permanent numbness in the area.

I heard reports from crew members after the windy 2005 Farr 40 Worlds in Sydney that they had no feeling in their outer thighs for up to 4 + weeks following the event. This is not a good sign as it means the nerve (a pretty major one) has stopped working for this period. Get it checked out by a good quality sports physiotherapist or doctor if symptoms persist.

Article Four: Recovery from Hard Hiking

A recent piece on hiking in keel boats provoked a lot of questions and comments , so this month I thought it would be interesting if we take a look at the best ways to recover from this demanding activity.

We are specifically looking at crews hiking in a chest forward position out of the boat in a bent over flexed position through the spine. If you hike from a strap in a dinghy style position then these can apply just as well.

There are two types of recovery needed after a race. Immediate recovery to get ready for the next race that day on a multiple race day and overnight recovery to prepare for the next day's racing.

Immediate- perform these on the water to prepare for the next race of the day or on the sail in after the final race of the day:

- Elevate feet- sit to leeward with the feet to windward to encourage blood flow back up the legs for around 6-12 minutes
- Drink fluid (water or sports drink) to replenish and stay hydrated
- Consume some protein between races to aid nutritional recovery and aid muscle repair
- Mobilise the back and hips
- Stretch in the opposite direction to extend the spine
- Squeeze and release the hamstrings and thighs to encourage blood flow to promote removal of waster products and to encourage delivery of fresh oxygenated blood.

Overnight- try these at home after racing and the next morning to prepare for the next race day:

- try some light activity when you get in- a walk or cycle home or a light swim or pool session if available at your accommodation
- avoid alcohol initially as it inhibits your recovery
- Try an ice bath or a contrast shower. Simply buy some ice from the service station and put the bags in a bath of cold water. Try to accumulate a total of 5 minutes in the water. Or if a bath is not possible then try a contrast shower. Look for 2 minutes hot then cold for 30 seconds/ repeat 2-3 times. Finish on cold. You can have a stretch in the warm period.
- Stretch the lower body hips and trunk
- Mobilise the back especially with some rotation and extension work
- Sleep with your feet elevated on a pillow
- drink a glass of water on rising to aid hydration levels
- aim to go for a light walk or cycle (or other light activity of around 10-20 minutes) on the way to the dock
- Have an active stretch (dynamic movement based) on the dock before leaving especially on windy days!

Article Five: Daily Regatta Plan - How to prepare and recover at a regatta

With the peak of the domestic sailing season about to commence let's look at how you could follow an ideal day at a regatta- this is the same for a local 2 day event or 7 day Australian Championship and remains pretty standard across classes from dinghies to keel boats. Obviously the more physical the class, then the more preparation and recovery you would do. Likewise a windy day will be more physically demanding than a light wind day.

There are three main areas to focus on each day:

1. Preparation
2. Compete
3. Recover

Almost everything you do over a day in a regatta will fall under one of these three broad activities.

Prepare

1. Wake up-try to get up at a similar time each day. Even on lay days. This helps regulate the body's internal clock. Have a glass of water soon after rising.
2. Have a substantial breakfast that includes some carbohydrates and protein. Examples could include eggs, toast, cereal, fruit, yoghurt and juice.
3. Do some light activity before leaving home. Aim for about 15-20 minutes to get the body moving- walk, swim cycle or a light stretch

Compete

1. Ensure you have some fluid over or as soon as possible after each race on a multiple race day.
2. After the final race aim to have something carbohydrate based as a snack and more fluid within 45 minutes after finishing
3. Have a light stretch at the venue if it has been a demanding race day. Do this before you hot the bar or any social activities



Recover

1. Once home have a shower and finish on cold water only to help recovery.
2. With dinner aim for a balanced meal that includes some protein - chicken fish or meat. A bowl of pasta and sauce is not the best option. Again keep drinking non alcoholic fluids to stay hydrated.
3. After dinner is a good time to stretch or get some self massage or release work done on tight muscles
4. To switch off mentally you may relax by reading, listening to some music, watching a DVD, playing games or anything that helps you to wind down. Try to put the days racing to bed and get the brain ready to sleep and recuperate.
5. If you are hungry then a light snack is fine before bed. A yoghurt or small smoothie would be ideal here.
6. Aim to get to bed at a consistent time each night that allows for 8 hours quality sleep.

Be sure to practise this routine on club race days or at small events before you hit your major event for the year. Like new sails or mast, a major event is not the time to introduce anything new. Be comfortable with how your body reacts to racing and what you need to do to prepare it for the races the next day. If you arrive at a venue early then slot into this routine over the days leading into event. The body loves consistency and you will feel remarkably fresh by the final race of the final day- where it all counts!

