

Your Emergency Back Pain Toolkit

A Complete Guide for Active Women 40+

Why My Lower Back?

As Leo Tolstoy once wrote, all happy families are alike, but each unhappy one is unhappy in its own way. A similar thing could be said about our backs – the rods of neatly stacked blocks (vertebrae) with shock absorbers (discs) between them and plenty of muscles near and far in the torso with the job to protect them.

In most cases, it's not one traumatic event that injures your back.

Most people hurt their backs with seemingly innocent movements, as the tissues have been stressed gradually over time, enough for something small to add that last kick. Usually, it's a combination of forces that compress, twist and slide the blocks and muscles tightening up to protect the spine. Everyone has their own, unique mechanism of injury.

Biomechanically, the lower back is the most vulnerable part of the human spine. The spinal segments between the vertebrae L4 and L4 and L5 and S1 are being pulled and pushed all day long, as they connect the more mobile lumbar spine with the less mobile sacrum, where the vertebrae are fused together. And they need to support the weight of the upper body too. So, this is a part of our backs where the weight we lift feels the heaviest!

Did you know that during everyday activities, your lower back bears more weight than the rest of the spine?

For example, during lifting, your lower back needs to bear load between 5 and 8 body weights. Let's say, a person weighing 70 kg may experience up to 560 kg of compressive force on their lower back!



Soothing a Flare-up

Ouch! My back! Now what? To move or not to move?

'I should lie down and rest until my back feels better.' – I hear you saying. Well, maybe briefly, but even during the acute phase, moving gently will help improve the blood flow in the area and release the tense muscles. **You can see movement here as a massage, rather than a challenge**.

Here is our plan to manage a flare-up:

- 1. Calm the nervous system + ease the symptoms
- 2. Switch that core back on
- 3. Build some muscle to support the back

1. Getting Out of the Emergency Mode

The first thing we need to do is soothe the fight-or-flight response and help your nervous system feel safe.

Here are some emergency tools to help you:

- Use heat (hot water bottle, heat pad) on your back if it feels soothing
- Lie in a restorative position, using breathing and very small movements to relax
- Take a gentle 5 min walk, to ease the stiffness
- Massage your lower back gently <u>using a rolled-up towel</u> or <u>a deflated ball</u>
- Also, here is a guided <u>18-minute back pain yoga and mobility video</u>, safe during flare-ups

2. Switching That Core Back On

Now, our next step is to switch on the core. We know that people breathe differently when their back hurts (O'Sullivan, 1998). The reflexes could be delayed or off and the way the brain perceives breathing might change. This is how sometimes we might end up stuck in unproductive breathing patterns – like the reverse breathing, where you tense at inhalation and relax the belly at exhalation, often found in people with chronic back pain.

When the breathing is off, the core muscles are not able to work effectively to stabilise the torso. So, we need to calm the body down and restore those reflexes.

I find that using the relaxing imagery of expanding – shrinking helps with restoring the breath – core muscle connection. For example, you could visualise a sphere in your favourite colour expanding effortlessly at inhalation and growing smaller at exhalation. Or the organic movement of a jellyfish or some other soft sea creature expanding and shrinking.

- Here is a <u>5-min audio guided Jellyfish relaxation</u> for you.
- Or, if sea creatures are not your kind of a thing, you can use this 2-min video to help you feel and switch on that deep core.

Once you are able to activate that core in lying down, we need to learn how to have it working in standing and dynamic movements, and eventually, add weights.

3. Make Your Training Work For - Not Against Your Back

Finally, we need to replace tension with strength. Muscle spasms, in case of back pain, are your body's attempt to protect you. The muscles tense up to compensate for a lack of stability.

So, we can't focus on releasing the tension without offering the body an alternative way to protect that back. We need to build muscle to provide stability and control and gradually replace tension with strength.

If you have a history of back pain, you want to make sure your deep core muscles are working effectively when you are training - especially lifting heavy things and/or adding impact.

So, how can you tell? 🕵



•• Look at that lower belly as you train!

- ✓ Is it moving?
- ✓ Drawing in or pushing out?
- ✓ Is your navel moving up or maybe down?

This all can give us an idea what is going on on the level of the deep abdominal and back muscles, pelvic floor and diaphragm, and how effectively your body is managing pressure.

We want that lower belly to respond to challenge - drawing IN and UP into the body at exhalation \mathbb{R}

If the lower belly stops moving, or starts moving down, it means the deep core is falling behind when trying to stabilise your torso and support the back.

Now, we know that acceleration (de Gennaro, 2019) and fatigue (Larson, 2018) increase the pressure inside the belly - so, the already weaker deep abs and back muscles will just not be able to catch up.

Warning Sign:

If you notice your lower belly disconnecting, STOP and REST.

Reset Strategy:

After 2 minutes, try again! Think of scooping up from the lower belly as you lift, growing taller through the back.

Pushing through an exercise with your core only partially working will best case be ineffective, and worst case flare up your back or create pelvic floor symptoms.



Ivana xx

About the Author



Hi there! I'm Ivana, I'm a back pain to performance specialist, an exercise biomechanics scientist MSc and a coach with 13 years of experience working in health and fitness. I am passionate about women's health and performance (both athletic and biological) and longevity. I specialise in helping women 40+ with history of back pain move from managing symptoms to pushing their boundaries. I have also <u>published research on slowing down</u> ageing with physical activity.

I value evidence-based solutions and precise, focused training where everything has its 'why'. My coaching style is grounded in empathy and non-violence – challenging the body with kindness.

Ready for Personalised Guidance?

Are you tired of dealing with recurring back pain that limits your active lifestyle? I have created the rePower Method, as a personalised, three-phase journey to help you build up from symptom management to an athletic performance-focused training.

Add your name to the coaching waitlist

I review each application personally and If I think we'd be a good fit to work together, I'll reach out within 72 hours to discuss potential openings.

What some of my clients say:

"Ivana has been a beam of hope for me. I was really considering surgery. I'm so glad that I found her because through her coaching I have learnt so much about the feet and their connections through the legs and pelvic floor. Everything aligns. I've noticed such an improvement that I don't have to buy tops which are a size bigger to fit my belly. I also feel stronger and reconnected to my core, now I know how it works and my awareness is better." Shikira

"I am motivated because I feel improvement. My life has changed. Now nothing feels bothersome, I have energy and will power because finally, after 10 years, I have no pain! Thank you very much!" - translated from the original: "Motivisana sam jer osećam boljitak. Promenio mi se život. Sad me više ništa ne mrzi, imam energije i volje jer konačno posle 10 godina nemam bolove! Mnogo ti hvala! "Maja"

"It's been amazing working with Ivana. During the last couple of years I've learnt so much and have seen my strength and coordination steadily improve. Every summer I take my kids to aqua-bounce and have been impressed by how noticeably my ability to manoeuvre the water obstacle course progresses with each year." Bart

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