

UNLOCKING LOW BACK PAIN: A HOLISTIC ASSESSMENT

Low back pain is a common issue that affects people of all ages and lifestyle and something that I see routinely as a physiotherapist. It is a multifactorial condition, meaning that it is caused by multiple factors not just one single cause. This makes it a complex condition to diagnose and treat effectively. Physiotherapists play a crucial role in assessing and determining the root causes of low back to provide tailored treatment plans. Here we explore the various factors contributing to low back pain and the holistic approach that I take as a physiotherapist to assess what is driving your pain.

WHAT GETS BLAMED FOR CAUSING LOW BACK PAIN:

I commonly get patients with low back pain already implying that they know the factors which have caused their low back pain. These can be factors that they observe within themselves or that another health professional has told them. Some common examples that I often hear are:

1. Weak core
2. Tight or weak hamstrings
3. Tight hip flexors
4. Poor posture
5. Deadlifting
6. Being stiff or not flexible
7. Being old
8. Repetitively lifting at work or home

I then ask the patient if they have had any of these things assessed and the patient often looks puzzled. Now don't get me wrong, any of the above factors can contribute to low back pain however, I find they should be considered "innocent until proven guilty".

ANATOMICAL CAUSES OF LOW BACK PAIN:

DISC RELATED PAIN

Disc-related low back pain is a common condition that arises when the intervertebral discs, which act as cushions between the vertebrae, become damaged. This can be due to age-related degeneration, trauma, or excessive strain. A herniated disc, often referred to as a slipped or bulging disc, is a typical example where the inner gel-like substance of the disc protrudes, irritating nearby nerves and causing pain. This type of pain can range from a mild discomfort to intense pain, often radiating down the legs, known as sciatica.

JOINT RELATED PAIN

Joint-related low back pain typically stems from degeneration or inflammation of the intervertebral joints or facet joints, which connect the vertebrae in the spine. Conditions like osteoarthritis, joint synovitis, or joint capsulitis can lead to the breakdown of cartilage, causing painful friction between bones. This pain is often localized to the lower back but may also radiate to other areas, making movements stiff and uncomfortable. Inflammation and swelling of these joints can further contribute to the discomfort.

MUSCLE RELATED PAIN

In my experience, muscle related pain is often secondary to another cause of low back pain such as the other ones mentioned here. This can result in acute pain, stiffness, and sometimes spasm of the muscles around the back, making it difficult to move comfortably. However, on rare occasions strains in the muscles of the lower back can occur if the muscles are overstretched which will be acutely painful and be accompanied with swelling, inflammation, and bruising. Chronic muscle tension from stress or repetitive strain can also lead to persistent discomfort.

NERVE RELATED PAIN

Nerve-related low back pain, often referred to as neuropathic pain, occurs when nerves in the lower back are compressed or irritated. Conditions such as sciatica, where the sciatic nerve is affected, or herniated discs pressing on spinal nerves are common culprits. This type of pain can present as sharp, burning, or shooting sensations, often radiating from the back down into the legs and feet. Patients might also experience numbness, tingling, or muscle weakness.

STRUCTURAL RELATED PAIN

Low back pain caused by structural abnormalities often involves conditions such as scoliosis, excessive lordosis, or other spinal deformities that affect the alignment and biomechanics of the spine. These abnormalities can lead to uneven distribution of weight and stress across the vertebral column, resulting in pain and discomfort. Structural issues might be congenital or develop over time due to repetitive postures, injuries, or degenerative changes.

THE HOLISTIC ASSESSMENT APPROACH

A physiotherapist's assessment of low back pain should go beyond identifying the immediate cause. It involves a comprehensive evaluation of various factors that might contribute to the pain. This approach ensures that treatment is not only effective but also addresses the underlying issues to prevent recurrence. So here is how I do it...

A DETAILED CONVERSATION:

No matter what a patient comes to see me for, the first thing I do is have a conversation. A good physiotherapist should be able to narrow down the injury the patient has before they

physically assess the injury. It also helps me understand more about them as people so that I can tailor rehabilitation, goals, and treatment for them personally. Our conversation includes:

CURRENT INJURY

Firstly, we talk about why they have come to see me today. I will find out how long they have been experiencing their low back pain for, if they hurt it suddenly or if it has been niggling for a while. I will also try and find out if there were any factors that changed around the onset of pain which might include change of desk set-up, exercising more or less, or even if they have changed their pillow or mattress. I will ask if they have done anything yet for treatment or assessment including taking medication, seeing another medical professional, or getting images such as X-Rays or MRIs.

PAIN AND OTHER SYMPTOMS

I will then delve into their symptoms, usually pain, in more details. I'll ask questions around the severity of the pain at its best and worst, how they would describe their pain, what activities or things make their pain better or worse, and if there is a correlation between their pain and the time of day i.e. is better in the morning or at night. I will also ask about any other symptoms: numbness, tingling, pins and needles etc. Remember that these are to try and help give me clues about what is driving the pain.

PAST MEDICAL HISTORY

Understanding a patient's past medical history help understand previous injuries, surgeries, illnesses, and conditions that can add context to the current low back pain the patient is experiencing. It will also help me to determine other risk factors for certain conditions based on family history. I will also find out what medications a patient regularly takes and if that may be related to their current condition.

LIFESTYLE FACTORS

In my opinion, this section is probably the most important but often the most overlooked area in practice. This is where I find out important risk factors for developing lifestyle diseases which are preventable! I will ask questions about:

- Smoking
- Diet and nutrition
- Alcohol consumption
- Physical activity levels
- Social health
- Sleep amount and quality

- Stress levels

Similarly, to what often gets blamed for low back pain, these factors are often related to low back pain but are often overlooked instead. All of these factors often drive how we experience pain, how susceptible our body is to disease and inflammation, and our quality of life.

RED FLAGS

ALL physiotherapists should routinely ask what are known as “red flag” questions. These questions help rule in or out the potential for pain being caused by something more severe than low back pain. This will help ensure that diagnoses such as cancer, infection, osteomyelitis, or other more sinister conditions are not missed.

SOCIAL AND SPORT HISTORY

Understanding what a patient’s day and week routinely look like are important for two main reasons:

1. Help with goal setting (discussed below) as I will know what is meaningful and important for them to get back to
2. Help with tailoring treatment for them specifically

I will ask about who lives with them at home, what they do for work, and other hobbies. I will also learn about what sport they play or other physical activities they participate in and how often.

GOALS

Understanding their goals is important to ensure that the treatment and goals is patient-centred and aligns with what they hope to achieve through physiotherapy. By getting clarity on whether they want to return to sport, reduce pain, improve mobility etc. can help tailor physiotherapy approaches. Having measurable goals can also help with tracking progress and the effectiveness of physiotherapy.

A DETAILED PHYSICAL ASSESSMENT:

In this section I will describe the importance of a holistic physical screen. This is where I will determine what is likely causing their back pain from an anatomical sense, and also which ones of the commonly “blamed” factors are relevant to you.

OBSERVATION

For someone with low back pain I will be assessing a patient’s posture in sitting or standing or during specific movements to determine if there is anything that could be contributing to the patient’s pain. I will also look at the back for bruising, redness, swelling.

RANGE OF MOTION

Looking at the joint range of motion is not just about how far someone can move but also the quality of that movement. This is where we can find out whether “stiffness” of the back or hips really is a contributing factor.

STRENGTH

Using valid and reliable measures are important in the strength assessment. I will assess muscles of the back, core, hips, and legs in a way that can be replicated for reassessment. In my opinion, this is the most important part of the physical assessment as it often shows the main big contributing factors to the low back pain and is crucial to guiding exercise prescription for rehabilitation.

MUSCLE LENGTH

This is where we will have a look to see if hamstring, groin or hip flexor tightness is a contributing factor.

SPECIAL TESTS

Special tests are a group of tests that physiotherapists use to help rule in or out certain conditions. Different tests will be used to determine the anatomical cause of the pain and whether it is caused by the back, hip, or another structure.

FUNCTIONAL TESTS

Functional tests can be used to determine the quality of movement that a patient often uses which may be as simple as walking or more sport specific such as squatting, hopping, or running. I often look at deadlifts in this section for people who believe that is a direct cause of their low back pain or are keen to try but are fearful of the movement.

NEUROLOGICAL ASSESSMENT

Assessing reflexes, sensation, and specific muscles are important to determine whether there is an element of nerve compression or irritation and the severity of it.

PALPATION

Lastly, I will touch the structures of their back and determine areas of discomfort which can help guide manual therapy and exercise rehabilitation if I think they would benefit from trigger ball releases, foam rolling, or another exercise to help replicate hands on therapy that they benefited from.

CONCLUSION

Low back pain is a multifactorial condition that requires a comprehensive assessment to determine the root cause. Physiotherapists play a vital role in this process by evaluating not just the physical but also the psychological and social factors contributing to the pain. Through a holistic approach, physiotherapists can develop effective treatment plans that address the underlying issues and help patients achieve long-term relief and improved quality of life.

