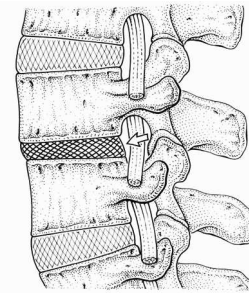


Stage 3: **The Acute Locked back**

What is an Acute Locked Back?

An acute locked back happens when an unguarded movement causes an agonizing jolt of pain to shoot through your back. You can suffer an attack like this in many ways, such as turning over in bed, getting out of a car, pulling your chair out or even bending forward to pick up a toothbrush. In fact, the absence of effort and preparedness for what you were about to do seem to play a key part. The main cause of such an episode is a momentary lapse of spinal coordination causing a facet at the back of the spine to slip slightly out of alignment. The degree of movement is very minor so X-rays or other forms of scanning are usually clear. It's not the actual slip that is the problem, it's the reactive and instantaneous protective muscle spasm that locks the spine and makes you rigid with pain.



Causes of an Acute Locked Back

1. A natural “window of weakness” early in a bend
 - The spine is caught momentarily ill-prepared in the early part of the range of movement
 - The slightest delay in the co-contraction of segmental muscles to stiffen the spine and allow the segments to go forward catches the spine off guard and minutely disjoints one of its facets somewhere in the column.
2. Segmental stiffness predisposes to facet locking
 - If the disc has already dropped in height and the other ligaments holding the segment in place have become loose, the segment becomes additionally vulnerable to locking.
 - Segmental muscles have a harder time to pre-tense the flattened disc at each lumbar level when spinal movement is initiated.
 - A spine already in line to develop symptoms from a stiff spinal segment is also more likely to suffer a facet locking incident.
3. Muscle weakness contributes to facet locking
 - The small muscles around the stiff segment become weak and lose their bulk failing to prevent sideways twist of a vertebra contributing to facet locking.
 - General unfitness can impair the coordination between the abdominals and back muscles thus failing to simultaneously hold the spine supported.
 - The deep intrinsic muscles have difficulty to fire just at the right time prior to moving the spine.

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Symptoms

The Acute phase-the muscles lock up to protect the individual joint

- A sudden sharp pain at the beginning of a movement
- The pain at this stage can alternate between a cramp hovering in the background and an excruciating jolt whenever you move.
- Your back feels rock hard secondary to constant pain and muscle spasm.

The Sub-Acute phase- within a few days the crisis of the acute condition should pass

- As the muscles relax, it becomes easier to move although it is still painful turning over in bed and switching positions.
- The broad surface area of pain becomes reduced to a localized area of soreness becoming easier to pinpoint the focus of the trouble.
- Your back feels bruised and fragile and the pain is no longer constant.

The Chronic phase- the protective muscle spasm is greatly reduced, the joint underneath often emerges dysfunctional.

- Low grade tenderness and chronically stiffened muscles in your back
- Pain in the buttock and thigh comes and goes with activities which increase the pressure on the facets (e.g. slumped sitting or prolonged bending activities like gardening)
- Above symptoms may vary day to day, sometimes from hour to hour and almost from one position to the next.

*Acknowledgement to Sarah Keys (pictures & content)

Shop No. P16, NorthPoint, 100 Miller St. North Sydney. NSW – 2060

T – (02) 99222212 F – (02) 99225577 W: www.physio4all.com.au

E: info@physio4all.com.au

ABN: 77 548 297 578