

Lumbar Instability Syndrome



Congratulations, you have been diagnosed as having **Lumbar Instability Syndrome**. What is that you may ask? Well there are many types of low back problems and this is one. It presents with some common and predictable pain sites and problems.

This is a condition that arises when the muscles and ligaments of the spine are not able to hold the spine secure enough to stop injury. The joints in the lumbar spine require the muscles and ligaments around them to hold the spine together in a functional manner so it can move, but still be strong enough to lift and twist safely.

The act of lifting often includes some twisting. To lift a box off a pallet, bring it up to waist height and then place it on a bench to the side is a good example. It really does not matter how strong your legs or your arms are if the lower back cannot counter the force created by the lift and the weight of the box. More specifically, the ability of the muscles and ligaments in the lumbar spine to transfer the load of the lift and allow the twisting of the spine in a controlled fashion. The ability to stabilize the spine while twisting is most important. To be able to place the box on the bench without straining the lower back will require the stability of the spine in addition to strength.

The muscles in the area are required to hold each joint together and control the movement of each joint as it lifts, twists, and then places the box down. The ligaments of the joint will keep the joints stable and restrict the movement to what is normal. They will also give the brain information as to the stress and position of each joint so the lift is controlled and the correct amount of muscle contraction is used.

The best analogy for this problem is when a crane lifts a load from a truck to put on top of a roof being built. First of all, the crane must have the stabilizers out to stop it from tipping over when the weight comes on (feet wide base). Then the winch will wind up the wire to lift the load (arm and shoulder muscles). The lift force of the wire (of the arm) has to be countered by the stabilizers (feet). The load is lifted off the truck then is rotated (twisting of the lumbar spine) and placed on the top of the building (bench).

With many of these lifts, the lumbar spine is only strong enough to perform the lift straight in front up to the bench. It is the twisting that causes the problem. This may be as a result of a number of problems.





The joints in the lumbar spine may be held too loose by the ligaments around the joint or the shape of the joint may have changed with age and stress to make it less stable. The muscles often are only trained to work lifting in front and not in a twisting fashion. If this is the case, twisting will either fatigue the muscle or they will not act at the correct time to prevent the joint from being sprained. The lift may also be performed as a pattern of movement, which the spine is not used to, such as reaching into the back of the car. It is not the weight of the load, it is more the twisting action.

Sometimes it may come on for no apparent reason. You did not deserve it. The bottom line is, you now have a back problem that you can affect in a good or bad way. You have sprained the joints in the lumbar spine as a result of not being able to keep them stable. The pain may range from local to radiating pain, extending into the buttock and legs, depending on how bad it is. This may range from minimal pain to constant pain in all activities.

The best approach for you is to minimize the bending you do, in particular, twisting. This may mean getting both legs out of the car first before you get out, or rolling over in bed with the shoulder and the hips moving together to stop the spine from twisting. Make sure you can face everything you lift to decrease the twisting.

Your clinician will show you ways to do things differently during the day to minimize the stress on the lumbar spine. This will mean that the pain should decrease, but first you will notice that movement improves.

Treatment will vary depending on the pain level, stage, and severity of your problem. Between you and the clinician, you will be able to manage this type of back problem well.

Notes from Your Physical Therapist:

If you have any questions or concerns, please contact Above & Beyond Physical Therapy.

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