

Lower Back Pain

By Mike Merrill, MD

As a trooper, you probably spend many hours behind the wheel - in a physical position that puts you at high risk for lower back pain - and there are few things as embarrassing as being incapacitated for a few days by back spasms.

About 80 percent of the general population will have back pain at some point in their lives, and it's the most common reason for work-related disability.

Back pain is preventable through stretching and exercises that compensate for the back's innate weaknesses. However, if lower back pain does happen, doing the right thing can get you back in shape quickly.

Apart from humans, most vertebrate animals go through life with their backs horizontal, with the rib cage and abdomen hanging off the spine. We humans, however, have most of our weight pressing vertically down on the spine. As a result, the lumbar discs take a tremendous amount of pressure, while also needing to remain flexible. In short, our lower backs do work for which they are poorly designed.

Due to the complicated anatomy and function, no medical professional truly understands back pain, and medical specialties disagree over the finer points of prevention and treatment. However, it is clear that spending time sitting with your lower back bulging

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This article first appeared in the Summer 2004 issue of PBA Trooper, official publication of the PBA of the New York State Troopers, Inc.

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out, as when driving a vehicle, is bad.

Envision your spine as a flexible column, with a vertical strip of reinforcing ligament running up the front, and another strip running up the back. The ligaments in the back are weaker, so when you bulge your lower back backwards, you put stress on the weak ligaments. When you arch your lower back, pushing your stomach out forward, you are relying on stronger ligaments. The weaker set of ligaments is also stressed when you lift heavy loads, especially ones held far from the body. When those weaker ligaments give out, or tear, or can no longer hold in a disc, you get back pain.

Several activities can reduce the risk of this happening.

If you only do one thing after reading this article, use aggressive lumbar support while driving. A cheap, easy and effective way is to cut off about 16 inches of a 2x4, wrap it in a towel and then coat the whole thing with duct tape. When you are driving, position the 2x4 so it sits across your lower back. It's not as uncomfortable as it sounds. If you get the right size piece of wood, when you get up it will fall down into the crack at the back of the seat, so when you have to get into the car quickly it will be mostly out of the way.

Using good lumbar support not only prevents damage from driving,

but also provides a mild therapeutic stretch to the lower back. In general, commercially available lumbar support cushions are not only expensive; they do not provide adequate support for maximal benefit.

A firm mattress on your bed is important for much the same reason as is lumbar support. You don't want your back sitting in a bad posture for the hours that you sleep.

Another good idea is doing back extension exercises. As we get older, many of us lose the forward curve of our lower back, due to spending many hours in forward-leaning activities. To help reverse this process, lie face down on the floor with your hands under your shoulders, as if starting a push-up. Push your shoulders off the floor while leaving your hips on the floor. Hold this for 10 seconds and relax. Do 10 repetitions. This exercise returns the back to a more physiologic condition.

A yoga class is one of the most powerful things you can do for your musculoskeletal health. Yoga builds flexibility and, through an unknown mechanism, even gentle yoga exercises build cardiovascular health. But yoga is no longer an earthy-crunchy, flower-child activity. There are yoga classes out there that will break a sweat on even highly conditioned athletes.

In general, the more physical activity you engage in, the happier your back will be. The back was designed to be a flexible column contained in a highly toned mass of muscle. Without muscle mass, the back tends to rely excessively on its own ligaments to hold up the body. This leads to multiple areas of strain and pain.

If you start to notice mild back pain, I would suggest seeing a physical ➤

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therapist earlier rather than later. A PT can give you specific exercises that can keep you feeling well. An ounce of prevention is worth a pound of cure.

If debilitating lower back pain does strike, get ice on it right away. Remember that most lower back pain goes away after a few days or weeks. But don't be reluctant to seek medical help.

Your doctor will probably want to put you on pain medications and muscle relaxants. In general, these medications should be taken on a scheduled basis during the early phases of the back pain episode – don't just take them when you feel the worst, because they work on the disease process itself. Some doctors prescribe a short course of steroids, and some prescribe opiates briefly. Be careful driving when you are taking opiates or muscle relaxants. Keep in mind that the drowsiness that sometimes comes with these medications tends to go away after a few days.

Physical therapy is, in my view, extremely important in acute lower back pain. In particular, I would suggest calling around until you find a PT who can do a "McKenzie evaluation," a technique that uses tailored back extension exercises to control the pain. Chiropractic manipulation can help tremendously also, but probably should not be a substitute for physical therapy.

Despite popular opinion, CT and MRI scans are usually not too useful in acute lower back pain. However, you should have an x-ray of your back if you have fever, recent weight loss, a history of cancer or are over age 50. Also, make sure you contact your doctor immediately if you have any changes in your urinary or bowel function during an episode of lower back pain – sometimes a compressed disc can compress the nerve roots that go to the bowel and bladder, and urgent care may be necessary to prevent long term incontinence.

Lying in bed for a day or two with back pain is OK, but after that you should get up and around. Every day you sit in bed you get weaker and create more opportunities for your back to get into mischief. □