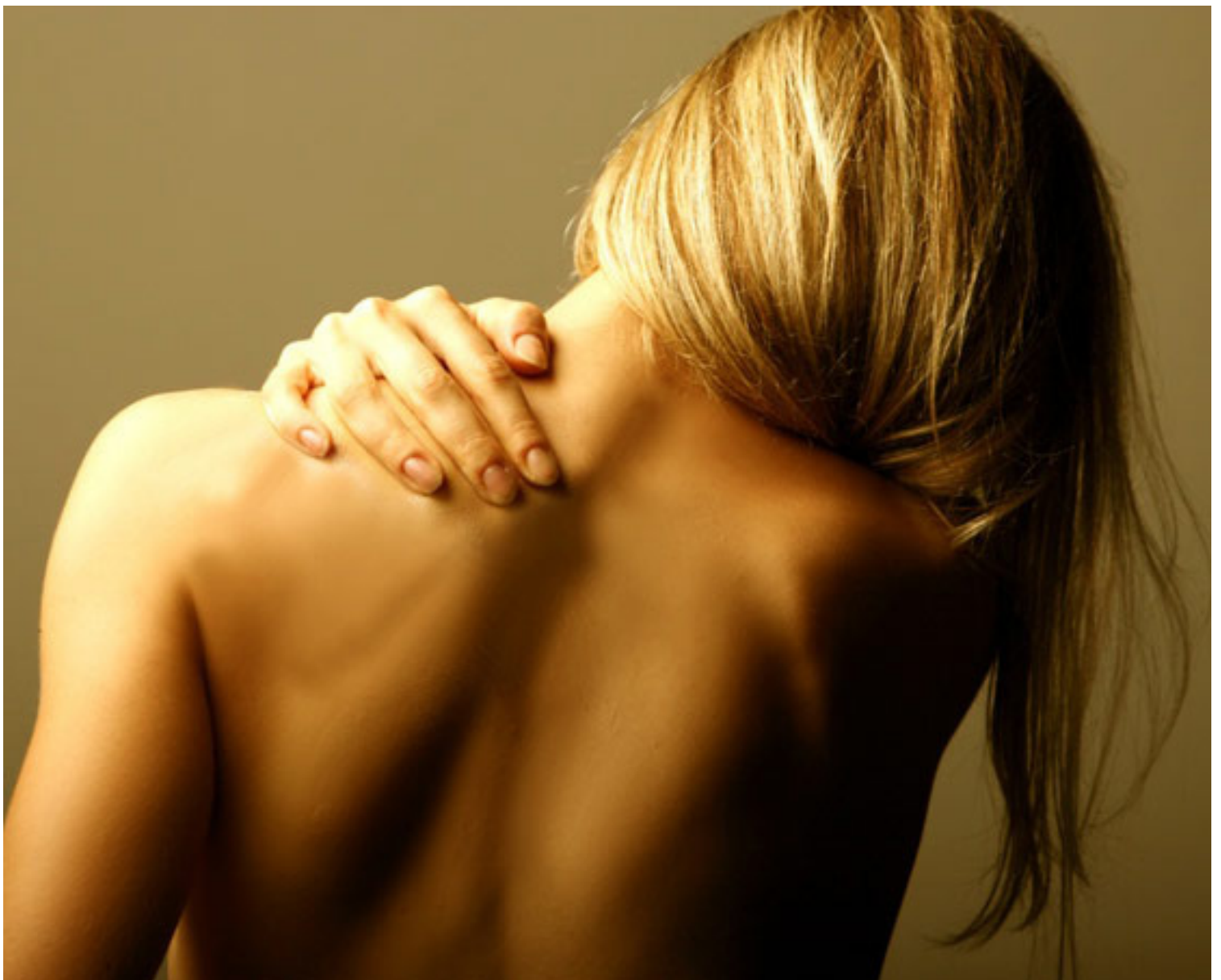


# **TOP TIPS FOR MANAGING YOUR BACK PAIN**



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# **TOP TIPS FOR MANAGING YOUR BACK PAIN**

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Back pain is very common and in many cases  
difficult to prevent completely.

However there are a number of things you can do to reduce the  
risks of developing disabling back pain.

# Your Back, How it Works?

## Anatomy (the structures)

The spinal column is made up of 33 bones called vertebrae with discs that act as shock absorbers in between. These bones are given a letter and a number depending on where they are located in the spinal column:

- **C (cervical)** followed by a number from 1 to 7, refers to the vertebrae in the neck.
- **T (thoracic)** followed by 1 to 12, refers to the thoracic spine (where the 12 ribs are attached).† Sometimes the vertebrae in the thoracic spine are referred to as dorsal with the letter D.
- **L (lumbar)** followed by 1 to 5, refers to the lumbar (or lowest) section of the spine.
- **S (sacral)** followed by 1 to 5, refers to the lowest vertebrae, although these vertebrae are fused together, forming the sacrum.
- **Coccyx (or tail bone)**, formed out of 4 fused vertebrae at the very bottom of your spinal column.

## Your spinal column consists of 33 vertebrae

The shape of the vertebrae in your neck is different from the vertebrae in your lower spine. For example, the vertebrae at the bottom are much bigger and heavier since these support almost your whole upper body while the ones in the neck only support your head. Secondly the shape of the vertebrae determine in what directions you can move; you can move your neck much more freely than your lower spine.

The vertebrae have a small gap (called the 'foramen') through which the spinal nerves run. The spinal nerves (which are part of the central nervous system) run all the way from the base of your brain to the bottom of the spinal column. The nerves exit the spinal column at the level where they need to be, for example the nerves that go to your arms, exit the spinal column in the neck area (cervical), and the nerves going to your legs exit much lower and run along the whole length of the spinal column.

The discs (the structures between the vertebrae) are made up of a soft jelly like substance (the nucleus), which is held inside a tough, elastic and fibrous outer casing (the annulus). The official name of the discs is intervertebral discs.

The spinal column (consisting of the vertebrae and discs) is supported by numerous muscles, tendons and ligaments. These provide strength and stability to the 'chain' of vertebrae and discs. The muscles are connected to your bones with tendons; when a muscle contracts the forces are passed on to the skeletal system via the tendons. This ensures that a muscle contraction results in a movement of a certain body part. The ligaments provide stability to joints, but are also somewhat flexible so they can stretch or contract when the joint moves.

You will notice that your spine is not straight, but is actually an 'S' shape. Not all backs are the same 'S' shape but they are usually curved with a hollow in the base of your neck and another in the lower part of your back.

# Physiology (The way it works)

From the above you can see that your back consists of many different structures; vertebrae, discs, nerves, muscles, tendons, ligaments. But this does not fully explain how they all work. Similarly, you may know all the parts of the engine in your car, but in order to really understand the engine, you will also have to know how they work. In other words you need to know about the structures (the anatomy) and the working mechanisms. The latter is called physiology.

One of the key elements of how the structures in your body function is blood flow. Your blood provides the various parts in your body with oxygen and nutrients ('energy'). Furthermore, your blood also provides a 'waste-removal' service by taking away the waste that is being produced when body structures use the available oxygen and energy (for example carbon dioxide, CO<sub>2</sub>). One of the factors that may restrict the blood flow is smoking. This is especially important in the discs that have a very minimum blood flow (due to the high pressure in the discs it is difficult for the blood to enter the discs). Research has now shown that smoking can indeed be one of the factors that contributes to back pain.

A second element of how your spinal structures work is how the various functions are being co-ordinated. This is done via messages that travel through your nerves. One type of nerves passes messages from your brain to the rest of your body and a second type ensures that information from the various body parts is fed back to your brain. This messaging service is however slightly more complicated because before a message from let's say your lower spine reaches your brain, there can be many factors that can either suppress or re-enforce the original message. Researchers still find new factors that can alter pain messages.

# Back Pain, Why?

Back pain is a very common problem. Around eight in 10 people in Western countries suffer from backache at least some of the time. Back pain is usually not due to any serious disease. Most episodes of back pain get better quickly. A simple change of activity are generally all that is needed.

About half of all people who get back pain will have further episodes. The first step to managing back pain is to rule out the possibility of any medical problem, such as infection or fracture (although these are rarely the cause).

## Common causes of back pain

Most people with back pain do not have any significant damage to their spine. The pain comes from the muscles, ligaments and joints. Some common causes of back pain include:

- **Muscle and ligament strains** – weak muscles and ligaments are unprepared for sudden or heavy loads and are easily injured. Lifting a heavy load the wrong way, an unusual bout of exercise or even bad posture over a period of time can hurt soft tissue.
- **Arthritis** – osteoarthritis and ankylosing spondylitis are two forms of arthritis linked to back pain.
- **Osteoporosis** – fracture of the vertebrae due to osteoporosis. Osteoporosis is a disease characterised by thinning of the bones. The vertebrae can become so porous and brittle that they break easily. Pain is due to the fracture.
- **Sciatica** – the nerve that runs from the lower back into the leg is compressed by a bulging intervertebral disc, causing pain.
- **Stress** – one of the side effects of stress is increased muscle tension. This can lead to fatigue, stiffness and localised pain. Constantly tight muscles can create imbalances in a person's posture that may cause misalignment of the spine.

More persistent back pain may be associated with arthritis of the facet joints and degeneration of the discs. However, people with this condition may not experience any pain.

## Lifestyle factors contribute to back pain

Most cases of back pain are exacerbated by lifestyle factors, including:

- Lack of exercise
- Being overweight or obese
- Leading a sedentary life
- Poor posture
- Stress
- Bad work practices.

# Top Tips for Managing Back Pain

In most cases, back pain can be prevented by making a few lifestyle changes. Some suggestions include:

## Exercise regularly

Even if your back hurts a little, try to stay somewhat active. You may not be ready to move furniture or play football, but you can wash the dishes, walk around the block, or engage in slow, gentle exercises like yoga or t'ai chi. Work towards doing 30 minutes of gentle exercise each day. This can be broken into shorter periods for equal benefit. Most people find that regular activity eases their pain and puts them on track for a quicker recovery. One note of caution: If any exercise or activity makes your pain worse, stop doing it immediately.

## Lift and carry safely

If you are picking up a heavy load: squat down, hold the object as close to your body as practical and lift by using your legs, keeping your back straight. Get some help from another person or use equipment (such as a trolley) if the load is too heavy to manage comfortably on your own.

## Maintain a healthy body weight

Being overweight or obese puts extra strain on your back. If you're seriously overweight, those extra pounds could be straining your spine. Lose some weight and you just might lose the pain. In contrast, people who are just moderately overweight probably can't hope to overcome back pain simply by slimming down. A weight-loss program that includes regular exercise is bound to make your whole body feel better -- no matter what the scale says.

## Chill out

A little ice can go a long way toward relieving back pain. You can either buy an icepack or make one by putting some ice cubes in a plastic bag and wrapping it in a towel or cloth. Then put the whole bundle on your sore spot several times a day, for 20 minutes at a time.

## Turn on the heat

Once your back starts to feel better, you can switch from ice to heat. A heating pad can boost circulation to your back and loosen tight muscles. (Keep the heat on the medium setting or lower to avoid burning yourself.) Moist heat is better, but be cautious not to wrap a wet towel around a heating pad unless it's a waterproof "moist" heating pad. As with the ice pack, you should limit each session to about 20 minutes.

## Take regular breaks

When driving, standing or sitting for long periods of time, take a break at least every hour. This will help change the position of your joints and loosen your muscles. Include a short walk and a few stretches as part of your break.

## Be aware of your posture

Consider your posture, particularly in seated positions such as when driving or sitting at a desk for long periods of time. If you tend to slouch, which is so easily done, you may be able to relieve pain by improving your posture.

### Good posture

Your body can take numerous different postures and it is almost impossible to describe them all here, however some general principles to promote good posture:

- Make sure your back is well supported when seated for long periods of time. Extra support in your lower back (a lumbar roll) can improve the comfort of many seats and chairs.
- Keeping your neck and head in line with your spine prevents unnecessary strain on the muscles in the neck. When looking from behind, your spine should be straight. If you have to bend your spine sideways for a long time, you will start to feel uncomfortable.
- Many chairs and seats have been designed to fit this natural S shape of your spine. Many people find that maintaining this S shape when seated gives them more comfort and less pain.
- But more importantly: move around regularly. Even the best posture will start to become uncomfortable after some time. Move around and change your posture regularly.

### Bad Posture

- Hunching the shoulders forward
- Slumping in your seat

To prevent such postures from giving you back pain, you should restrict the amount of time you adopt these 'bad' postures. While your body is perfectly able to cope with many of the daily stresses, excessive exposure to such bad postures may increase your risk of developing back pain

## Self-Myofascial Release

Self-Myofascial Release techniques on a simple piece of foam roller, can improve flexibility, function, performance and reduce injuries. In a nutshell, you use your own body weight to roll on the round foam roll, massaging away restrictions to normal soft-tissue extensibility. And you can perform this at home, maximizing their recovery time. Ask your massage therapist, personal trainer or physiotherapist its guidelines. It is imperative that you are proficient in these techniques prior to engaging in Self-Myofascial Release programme.

## Relax and manage your pain

Learn some relaxation techniques to reduce stress levels and related muscle tension. The tension and strain of everyday life can go straight to your back. If your back muscles feel tight whenever you're under pressure, you can fight pain by learning to relax. When you feel your blood starting to boil, take a few slow, deep breaths and picture yourself in a quiet, beautiful place. Take warm baths, find a hobby, go on walks with a friend, try to keep a positive outlook, and learn to accept

## Good night, sleep right

Surfaces that are too soft or too hard can aggravate a sore back. While the old philosophy was that a firmer mattress is better, doctors today recommend that you sleep on whatever type is comfortable for you. "Take your mattress for a test drive," You might also try sleeping on your side with your legs slightly bent. If you prefer to sleep on your back, it might be a good idea to put pillows under your knees to flatten your back.

## Snuff out those cigarettes

Recent studies have uncovered a surprising link between smoking and back pain. For unknown reasons, smokers seem to be especially vulnerable to this type of pain. There's no solid proof that quitting smoking will help relieve the pain, but it's certainly worth a try.

## Invest in a massage

Besides relaxing you mentally and physically, massage may release endorphins, the body's natural painkillers. And recent studies suggest what some people have experienced firsthand: Massage can help relieve persistent back pain. A randomized controlled study in the Archives of Internal Medicine showed that massage substantially relieved lower back pain among people suffering moderately severe chronic pain. After 10 one-hour sessions of massage (spread out over a 10-week period) participants reported less pain and disability than the control groups; in fact, both some symptoms dropped by nearly 50 percent, an improvement that the researchers found still true a year after their last massage. "The results of this study suggest that massage is an effective short-term treatment for chronic low back pain, with benefits that persist for at least 1 year," the study's authors reported. What more motivation do you need to treat yourself to a massage?



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