Newsletter

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Spinal Conditions

> "It is within yourself that you will find the strength you need"
>
> **UNKNOWN**

Note from the doctor

Judging by the rate at which the health of our backs degenerate, it appears that humans were definitely not designed to walk upright. In fact, the biggest cost to the Workmen Compensation Fund is from spinal conditions. Learning how to prevent back diseases and injuries is of paramount importance.

The following are at the highest risk for developing back conditions:

- Overweight;
- Those that seldomly exercise;
- People who are primarily sedentary (such as desk workers and truck drivers)

Preventing back conditions is possible by:

- Keeping your weight under control;
- Doing abdominal exercises and developing core muscle strength;
- Learn to sit with the correct posture;
- Learn how to lift heavy weights correctly.

Back problems can be prevented

UNDERSTANDING YOUR BACK

The human back is a complex and well-engineered structure, comprising of muscles, ligaments, nerves, tendons, disks and bones. Together they provide support, strength and flexibility. A problem with any of these components leaves the lower back susceptible to injury which quickly leads to back pain.

The most common causes of back pain include:

- Strained muscles;
- Strained ligaments;
- Muscle spasms.

Activities that lead to strains or spasms include:

- Lifting objects improperly;
- Lifting objects that are too heavy;
- An awkward movement.

The following structural problems may also result in chronic back pain:

- Ruptured disks;
- Bulging disks;
- Sciatica;
- Arthritis;
- Abnormal curvature of the spine;
- Osteoporosis;
- Cauda Equine Syndrome;
- Cancer of the spine;
- Infection of the spine;
- Other infections – bladder or kidney infections may also result in back pain;
- Sleeping disorders;
- Shingles;
- Bad mattress.

You can get back pain from everyday activity like:

- Bending;
- Pushing;
- Pulling;
- Carrying;
- Lifting;
- Standing for long periods;
- Twisting;
- Coughing;
- Sneezing;
- Muscle tension;
- Over-stretching;
- Straining the neck forward like when driving or using a computer;
- Driving for long without a break.

Risk factors that are linked to developing lower back pain include:

- A mentally stressful job;
- Pregnancy;
- A sedentary lifestyle;
- Age;
- Anxiety;
- Depression;
- Gender – females are more likely to have back pain than males;
- Obesity;
- Smoking;
- Strenuous physical exercise if not done properly;
- Strenuous physical work.

Treatment for back pain depends on the patient and the diagnosis. Some treatments are more effective than others and many people believe that combinations treatments are best. Some of the self-care treatments include:

- Short rest periods – back pain can be improved by avoiding strenuous activity for a few days;
- Heat and Ice therapy;
- Ice packs for lower back pain;
- Over-the-counter pain medication;
- Exercise for lower back pain;
- Stretching for lower back pain;
- Doing strengthening exercises.

Alternative Treatments for lower back pain include:

- Manual manipulation;
- Acupuncture;
- Massage therapy;
- Mindful meditation;
- Yoga

UNDERSTANDING YOUR SPINE

> "The Spine is the tree of life, respect it"
>
> **MARTHA GRAHAM**

The spine, also known as the spinal column, is a structure within the body made up of 33 individual vertebrae stacked one on top of the other. It serves as the main support structure of the body. The spine gives us the ability to move our bodies, letting us bend, twist and stand upright. It furthermore serves to protect the spinal cord from injury.

A healthy spine in an adult, when viewed from the side, will have a natural curve like an S shape. The cervical and lumbar regions have a slight concave shape, whilst the thoracic and sacral regions have a more convex curve. The above-mentioned curves work together much like a spring in order to maintain balance, absorb shock and allow for range of motion throughout the spinal column.

Regions of the vertebrae and their purpose:
The bones of the spine are divided into 5 regions and each region serves a specific purpose. Of the 33 three individual vertebrae only the top 24 can move. The coccyx and the sacrum are fused together.

Cervical Region (Neck)
The vertebrae in the neck region are numbered C1-C7 and their main function is to support the head. This section of the vertebrae has the greatest range of motion as the first two vertebrae move individually and allow for movement of the head.

Thoracic (mid back)
The thoracic vertebrae are numbered T1-T12 and they protect the heart and lungs by holding the rib cage in place.

Lumbar (low back)
The lumbar vertebrae are numbered L1-L5 and in appearance they are much larger than other vertebrae as their main function is to hold the weight of the body.

Sacrum
The sacral vertebrae are fused together and serve to connect the hipbones to the spine.

Coccyx
The coccyx, also known as the tailbone, consist of four bones fused together, and connects the muscles and ligaments of the pelvis.

The spinal cord
The spinal cord serves as a pathway through which information from the brain and peripheral nerves are carried to the rest of the body. The spinal cord is one of the most sensitive and vulnerable areas in the body and is protected by the spinal column.

How to keep your spine healthy:
Taking care of your spine is one way of lowering your chance of experiencing back pain at a later stage in life. Here are a few easy adjustments that can be made to everyday life in order to improve your spine's health:

- When lifting an object, it's quite easy to damage your spine by lifting incorrectly. Rather stand as close to the object as possible and use your legs and knees to lift instead of your upper body.
- Start the day with a couple of stretches as keeping a flexible spine reduces the risk of injury as well as helps to retain a healthy range of motion and normal joint function.
- Pay attention and be mindful of your sitting posture at your desk, adjust your chair and screen as needed and ensure that you have good lumbar support.
- Eat a balanced diet that include foods rich in vitamin C in order to strengthen your bones;
- Keep your weight under control.

References

Spine
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Back
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