



# 12 Common Causes of Back Pain to Be Aware Of

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## Common Back Pain Causes

*With contributions from Marlene.*

This morning, I woke up with an aching lower back. My lower back has been hurting for the better part of the past month.

As a woman in my mid-30s, I have had my fair share of back pain over the years. I've carried an almost 9-pound baby to 41 weeks gestation. I have worked several years as a floor nurse, lifting patients when I probably should not have. I spent years as a dancer before my high school graduation.

You could say that I have had my fair share of back injuries, and I am not alone.

According to the American Chiropractic Association, back pain is the single leading cause of disability – half of Americans admit to having back pain yearly, and 80% will have back pain at some point in their lives.

Back pain is costly – the American Chiropractic Association estimates that low-back pain “costs Americans at least \$50 billion in health care costs each year—add in lost wages and decreased productivity and that figure easily rises to more than \$100 billion.” If you are a back-pain sufferer, chances are you can relate – emergency room visits with imaging tests, prescriptions for muscle relaxants and excuse notes for work, am I right? I know I have been there.

## Types of Back Pain

It is important to differentiate between the various types of back pain.

Acute pain means that the is short-term, typically lasting only a few days to a few weeks. Most back pain is acute. When back pain is acute, it resolves with self-care and there is no loss of function after the pain goes away.

Subacute pain is pain that lasts four to 12 weeks.

Chronic pain is pain that lasts longer than 12 weeks. Unfortunately, chronic back pain can occur even when an injury is treated; approximately 20% of people who sustain an acute injury will go on to develop chronic pain. According to the National Institute of Neurological Disorders and Stroke, “In some cases, treatment successfully relieves chronic low back pain, but in other cases, pain persists despite medical and surgical treatment.”

## Causes of Back Pain

There are many causes of back pain, and this article will cover the most common and uncommon causes of back pain. If you have back pain that is concerning to you, you should discuss the pain with your healthcare provider.

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Here are some common back pain causes:

### **1. Age**

The National Institute of Neurological Disorders and Stroke (NINDS) reports that men and women between 30 and 55 years of age have the highest incident of back problems due to a combination of risk factors that tend to present as a person reaches mid-life. By the time a person reaches middle age, bone strength, muscle tone and muscle elasticity begin to decline.

Also, the spinal discs are less flexible, which makes them unable to cushion the vertebrae of the spine as well as they once did. Back pain with leg discomfort often occurs as this degeneration makes the spinal canal narrow.

### **2. Weight**

Another common cause of low back pain with associated leg discomfort is weight. People who are overweight have to carry around excessive mid-section pounds, which pull the pelvis forward and create low back stress.

The sciatica that is associated with low back pain occurs when there is a herniated disc or pinched nerve that is directly associated with the weight.

### **3. Sedentary Lifestyle**

Another reason many people suffer from chronic back pain is due to lack of exercise or a sedentary lifestyle. This leads to increased stiffness and weak muscles. Also, people who sit or lay around often miss out on other benefits of exercise, such as increased blood flow that leads to nourishment to the muscles, ligaments, soft tissues, even spinal discs. The discs that are not often nourished begin to degenerate and get dry.

### **4. Sitting Posture**

Many people do not understand that posture can affect the back in several ways. Back pain with leg discomfort is a common occurrence for people who sit in office chairs for long hours.

Also, slouching down or sitting in a forward position will overstretch the spinal ligaments and put strain on the discs of the spine. This incorrect posture, when combined with poor workplace ergonomics, will contribute to persistent, recurring back issues.

### **5. Sprains and Strains**

Just like you can sprain or strain a wrist, knee, or ankle, you can sprain or strain your back!

A sprain involves the stretching or tearing of the ligaments. A back sprain is most likely to occur after a fall or a sudden blow. These move the back out of its normal range of motion.

A strain is an injury to the muscles and tendons. A back strain is most likely to occur due to twisting or pulling, or due to improper lifting. Those with chronic back pain may have a chronic strain from overuse or a repetitive movement.

How common are back sprains and strains? Strains are more common than you think – next to headaches, back issues are the most common reason for patients to visit their healthcare providers!

### **6. Disc Degeneration**

Degenerative disc disease is exactly what it says – the discs that act as shock absorbers between the vertebrae begin to degenerate or breakdown. As this happens, significant pain occurs.

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A vertebral disc has two parts:

- **The annulus fibrosus.** The annulus fibrosus is the firm outer layer that also contains nerves.
- **The nucleus pulposus.** The nucleus pulposus is the jelly-like core that is rich in proteins.

When the disc is damaged, it is unable to regenerate as it has a low blood supply. However, because of the anatomy of the disc, significant pain is felt if the disc tears.

## 7. Herniated Discs

Often, those who suffer from a herniated or ruptured disc also have degenerative disc disease (but not always).

A herniated disc – also called a bulged, slipped, or ruptured disc – occurs when a portion of the nucleus of the disc extends out of the annulus. When this happens, the disc often presses on spinal nerves, which produces pain, which can sometimes be severe.

Though herniated discs can occur in any part of the spine, they are most common in the lumbar spine (the lower spine).

## 8. Radiculopathy

You've probably heard an elderly family member say, "I have a pinched nerve." Maybe you have experienced this before. Radiculopathy is the medical term for a pinched nerve.

There are various places in the body that pinched nerves can occur:

- **Lumbar radiculopathy.** Symptoms occur in the low back. This specific type of radiculopathy is most commonly referred to as sciatica as the sciatic nerve is involved.
- **Cervical radiculopathy.** Symptoms occur in the neck due to a compressed nerve root in the cervical spine. The hands and arms are typically affected by this radiculopathy.
- **Thoracic radiculopathy.** Symptoms occur in the thoracic region. This type of radiculopathy is the least common.

With all three radiculopathies, back pain is common. The location of the pain will be dependent on the location of the nerve compression. They may also be caused by herniated discs and bone spurs.

## 9. Spondylolisthesis

Spondylolisthesis is a condition that affects the vertebrae of the lower back. When this occurs, the lower vertebrae begin to slip forward, directly onto the bone below it.

Mild cases of spondylolisthesis may cause no pain, but often those suffering from it experience severe pain and cannot perform activities of daily living. In fact, the symptoms are all pain-related symptoms:

- Consistent lower back pain.
- Stiffness in the back and legs.
- Thigh pain.
- Tight hamstrings and buttock muscles.

Spondylolisthesis can occur at any age, as it may run in families. Children may suffer from it because it can occur as a congenital disability or from rapid growth. It can also occur due to sports injuries, most often from football, gymnastics, weightlifting and track and field.

## 10. Trauma

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When we discuss trauma as it relates to back pain, it can relate to various causes.

Srini Pillay, MD, of Harvard Health, notes, "Not all people respond in the same way to this often-disabling condition. In fact, even if two people have the same level of pain, their responses to that pain can be very different. These differing responses are due in part to different people's psychological attitudes and outlooks."

It does not necessarily mean that back pain is in your head, but it can be related to psychological trauma that you have experienced. Also, no – you are not imagining that back pain – it is there.

If you have psychiatric conditions, your brain functioning is already abnormal as it likely is not processing dopamine effectively. This means that perhaps you are not only processing your emotional control, but also pain, and it can become consuming.

Dr. Pillay notes, "The pain itself can rewire your brain. When pain first occurs, it impacts your pain-sensitivity brain circuits. But when pain lasts, the related brain activity switches away from the 'pain' circuits to circuits that process emotions. That's why emotions like anxiety often take center stage in chronic back pain."

Then, we have those with post-traumatic stress disorder (PTSD); those with PTSD are at a much higher risk of developing depression, heart disease and physical pain, among various other health maladies.

According to VeryWell Mind, a study of firefighters with PTSD found that 50% had low back pain compared to their counterparts without PTSD. Why does PTSD frequently occur with pain? Often, PTSD occurs as a result of a traumatic, painful event – thus, the body is in pain. Examples include a natural disaster, a physical assault and war combat. Occasionally, PTSD occurs as a result of an event that is not physical. Depression can also cause pain for various reasons.

Then, we have physical trauma. This occurs as a result of something that happens to the body, such as a car accident, a sports injury, an assault. Physical trauma is not an everyday occurrence, such as tripping over your child's toy (though if you fall hard enough, that may cause trauma too). These are injuries that are severe enough to injure your back or other body parts.

In all of the above cases, acute pain improves within a few weeks. However, acute pain that becomes chronic that is related to a traumatic event is typically related to central sensitization.

The Institute for Chronic Pain defines central sensitization as "chronic pain in which the nervous system becomes stuck in a state of heightened reactivity. In central sensitization, the sensations of pain can become more intense and things that are not normally painful, like touch or massage, can also become painful. Central sensitization maintains pain even after the initial injury or illness heals."

## **11. Spinal Stenosis**

Spinal stenosis is a narrowing of the spaces within the spine. Though it can occur anywhere in the spine, it is most likely to occur in the lumbar spine (the lower back) and the cervical spine (the neck). The type of spinal stenosis is classified according to the location. For example, if the stenosis is occurring in the lumbar region, it will be called lumbar stenosis.

Symptoms of spinal stenosis worsen over time. Typically, symptoms are not present initially, but then pain, muscle weakness, tingling and numbness will occur. Other symptoms may be present based on the location of the stenosis.

Stenosis will be present on an MRI or CT scan, even when symptoms are not present, making it easy to diagnose.

There are various causes of spinal stenosis. Some people are born with a small spinal canal, but most people experience stenosis when something happens to the canal, such as bone spurs or an overgrowth of bone (such

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as Paget's disease), herniated discs, tumors (a rare cause) and spinal injuries.

## **12. Fibromyalgia**

Fibromyalgia affects women more than men, and it affects 2% to 4% of our population. It is also difficult to diagnose – there is no one single test that is used. Healthcare providers diagnose fibromyalgia based on subjective and objective symptoms, though they may use various diagnostic tests to rule out other conditions. There is also no cure – medications and self-care are used to reduce symptoms.

If it seems like you have been hearing about more people with fibromyalgia, you are probably right – providers are getting better at diagnosing it, though it can still take a while. It is a fairly common neurologic condition that causes widespread pain, tenderness and fatigue.

The most common symptoms of fibromyalgia include:

- Tenderness to touch affecting the muscles, joints and even the skin.
- Severe fatigue.
- Sleep problems – for example, feeling unrefreshed even after sleeping 8 hours.
- Problems with memory.

No one knows what causes fibromyalgia. Researchers do know that it is not an autoimmune disorder but believe that it involves the central nervous system: the brain and spinal cord. For some people, there seems to be a familial tendency, though genetics is not a guarantee.

According to the American College of Rheumatology, "Fibromyalgia has been described as Central Pain Amplification disorder, meaning the volume of pain sensation in the brain is turned up too high."

Fibromyalgia is also considered medically benign. This does not mean that it does not cause significant issues to those that suffer from it, but it does not seem to cause other comorbidities, such as heart attack, stroke, or cancer.

Those with fibromyalgia may indeed have significant back pain, as well as significant pain in general. This pain can be consistent, or it can vacillate to other locations.

## **Rare Causes of Back Pain**

Although the causes of back pain listed above should be taken seriously and can cause significant pain, they are typically not life-threatening. The below causes of back pain can be life-threatening if left untreated. Please note that while they may cause back pain, they will also likely cause a host of other accompanying symptoms as well.

### **Cauda Equina Syndrome**

When a disc ruptures, back pain is typical. However, cauda equina syndrome is a rare complication of a ruptured disc. The material from the disc is pushed back into the spinal canal; this causes compression on the lumbar and sacral nerve roots. This compression causes a loss of bladder and bowel function, which is permanent if left untreated.

### **Abdominal Aortic Aneurysm**

The aorta is the large blood vessel that supplies blood to the abdomen, pelvis and legs. When this vessel becomes abnormally large, an aneurysm is said to have occurred, and it is termed abdominal aortic aneurysm (AAA). Back pain is typical with an AAA, especially if the AAA is growing larger. Many AAAs are asymptomatic, but there can be various other symptoms.

## **Treatment of Back Pain**

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Treatment of back pain is dependent on the cause of the back pain, as well as the location of the back pain. For example, treatment for back pain related to a AAA is vastly different from treatment for back pain related to fibromyalgia!

In general, you should seek expert opinion for the treatment of your back pain. Your healthcare provider may recommend that you start physical therapy, perform exercises at home, take certain medications, or even have certain procedures to treat the pain.

Most people, unless there is a contraindication, can tolerate a light walking and stretching routine.

### **The Bottom Line**

There are many causes of back pain, and we have outlined some of the more common causes in the article above. This article is in no way exhaustive, so you can use the information as a starting point as a discussion with your healthcare provider.