

BACK PAIN FAQs

What Causes Back Pain?

The back is a complex mechanical device, and one of the single most studied areas of the body. To sum up all that research, basically, anything that puts pressure on your back muscles or nerves can cause pain. Any illness or damage to your spine also can cause pain. The cause of most acute back pain is unknown, but probably is due to minor strains, sprains and overuse. Emotional stress may add to the pain, especially since it slows the rate of recovery. Other possible causes of back pain are ruptured discs, spinal stenosis, osteoarthritis, ankylosing spondylitis, injury, osteoporosis, rheumatoid arthritis, fibromyalgia, pagets disease, cancers, and referred pain form other locations. This by no means is a complete list. Unfortunately, due to this complexity, for many back pain sufferers a clear cause to back pain is never found.

What is a Ruptured Intervertebral Disc?

A ruptured or herniated disc is one that bulges into the spinal canal, pressing on the nerve roots. This causes the nerve roots to become irritated. A disc can rupture after bending over and lifting, or it may occur for no apparent reason. A ruptured disc may cause back pain and muscle spasms, but a more common symptom is sciatic pain. This is severe pain spreading down one leg and often into the foot. Sometimes it is the only symptom of a ruptured disc. A ruptured disc usually can be detected by a physical examination alone. Sometimes a procedure such as a myelogram, computerized axial tomography (CAT) scan, or magnetic resonance imaging (MRI) is needed to confirm the diagnosis and determine if surgery is necessary.

What is Spinal Stenosis?

In spinal stenosis, the spinal canal becomes narrowed. This squeezes the back nerves and puts pressure on them. It is this pressure that causes the back pain. Numbness, pain and weakness in the legs also can occur. The most common symptom of spinal stenosis is pain that worsens when walking and subsides when sitting down.

Can arthritis cause back pain?

Yes. There are several main types of arthritis. One is osteoarthritis, also known as degenerative disease. In people with osteoarthritis, the cartilage (soft, elastic material) that cushions the spinal joints and other joints in the body wears out. Lower back pain can become more intense when osteoarthritis affects the hips or the knees. Osteoarthritis also can directly affect the spine, causing muscles, tendons, or ligaments to become strained, which can lead to back and/or neck pain.

Another type of arthritis causing back pain is Ankylosing Spondylitis. This form of arthritis causes the joints in the spine to become stiff and swollen. In time, stiff joints can fuse

(grow together). The most common symptoms are pain and stiffness in the buttocks and lower back (particularly in the morning) that continue for more than three months.

Polymyalgia Rheumatica (PMR) is a rheumatic disorder that causes muscle pain, aching and stiffness in the neck and shoulders, lower back, thighs and hips. It can last a few months or many years. Most people experience severe stiffness in the morning.

Fortunately, Rheumatoid Arthritis can affect the neck but almost never the joints in the lower back.

I moved a heavy object, but didn't hurt much until the next day.

What is going on?

This is a very common scenario for people with acute back pain. Many back injuries are caused by an unexpected twist or sudden motion. This usually results in muscle strain.

With either an injury or accident, severe muscle spasms usually last 48 to 72 hours. They generally are followed by days or weeks of less-severe pain. It usually takes two to four weeks to heal completely from a mild back injury. It could take from six to 12 weeks if there are strained ligaments or if the strain is more severe.

Can osteoporosis cause back pain?

Yes, indirectly. The back bones become brittle due to loss of calcium. This is like an old piece of wood that becomes brittle after termite attack. Because there is a great deal of weight on each back bone, those bones can break more easily. This is most common in thin older women who don't get much sun, drink much milk, and never took estrogen supplements. A vertebral fracture often is seen as a "compression fracture". Falls, lifting heavy objects or moving the wrong way can result in a compression fracture.

Can fibromyalgia cause back pain?

Yes, but fibromyalgia can be difficult to distinguish from other types of back pain. People with fibromyalgia feel pain and stiffness in muscles and tendons, especially in the neck and upper back. The pain can last for weeks, months or years. The symptoms may disappear by themselves. This condition often is related to sleep problems, poor conditioning or an old injury. Fibromyalgia can be difficult to treat.

What is Paget's Disease?

This is a type of disorder in which the calcium in the bone spreads unevenly. The bones most commonly affected are in the lower back, pelvis, tailbone, skull and long bones of the legs.

Back pain may be a symptom, but most often there are no obvious symptoms. Paget's disease usually is discovered on an X-ray or bone scan done for reasons other than pain.

What are some less common causes of back pain?

Sometimes pain felt in the back actually originates elsewhere in the body. Such problems may include:

- prostate trouble in men;
- problems with reproductive organs in women;
- kidney diseases, such as an infection or kidney stone;
- diseases of the intestines or pancreas, such as cancer or a blockage;
- cancer that has spread to the spine;
- multiple myeloma, a form of cancer of the bone and bone marrow;
- curvature of the spine;
- or rarely, a tumor on the spinal cord.

What makes back pain worse?

Stress, poor posture, lack of exercise and being overweight all can contribute to the problem.

Why does stress make it worse?

Simply put, stress causes pain and pain causes stress. Internal stress can be manifested in external ways, such as causing muscle tension. Some may feel tired, sleep poorly, overeat or feel irritable. Some clench their jaw. Others tighten their neck and shoulders. Still others get a headache or an upset stomach when they are tense.

Many people tighten their back muscles when they are worried or tense. This can make existing back problems worse. Take a minute now to think about what happens in your own body when you worry or get tense. Do you think stress is affecting your back? If so, there are many things you can do to help yourself.

Will losing weight help?

It can't hurt. Think about the extra pounds people carry every day due to their being overweight. This puts added pressure and strain on the back and stomach muscles, causing those muscles to stretch and weaken. Weak back and stomach muscles cannot support the back properly. Poor posture can shift your body out of balance. This forces only a few muscles and joints to do all the work. Without proper exercise, muscles become weak and tire easily. Exercise is necessary to keep the back strong and limber.

The best way to lose weight is with a balanced diet along with regular exercise. Be sure to avoid fad diets or fast weight-loss programs.

What kinds of exercise should I do?

Generally none until you have seen a physician. However, once given the green light, a good conditioning (aerobic) exercise program led by a trained instructor can be particularly helpful. An effective program includes a warm-up period; about 30 minutes of aerobic activity (exercise that results in a sustained heart rate of 100 or more beats per minute); isolated muscle group work (including abdominal muscle toning); and a cool-down period. Over a period of time, the rewards of regular aerobic workouts can include a slimmer waistline and healthier back.

What is the difference between chronic and acute back pain?

Most doctors refer to back pain as acute (generally severe, but short-lived), subacute or chronic (long-lasting or occurring often). Acute back pain usually lasts from one to seven days. Pain may be mild or severe and occasionally may be caused by an accident or injury. About 80 percent of all back pain is acute. Subacute back pain usually lasts from seven days to seven weeks and usually is mild; occasionally it's severe. This pain generally is unrelated to other illnesses you may have. About 10 to 20 percent of all back pain is subacute. Chronic back pain usually lasts more than three months and maybe mild or severe. It may be related to other illnesses you may have or may have no identifiable cause. About five to 10 percent of all back pain is chronic.

How is the back put together?

Doctors often refer to the backbone as the spine, spinal column, or vertebral column. The backbone isn't one long bone, but actually 24 separate bones called vertebrae. These 24 vertebrae are stacked one on top of another like building blocks to form the backbone.

The points where two vertebrae or bones fit together are called joints. They make it possible for the spine to move and turn in many different directions. The discs are rubbery pads located between each vertebra. These discs are made of cartilage, which is a soft, elastic material (your ear and tip of your nose is made of cartilage too). Discs act as cushions, or shock absorbers, much like the shock absorbers in your car. Their main job is to protect the joints from wearing out. Most joints contain a slippery substance inside called synovial fluid that keeps them moving smoothly.

The spinal cord is very important because it transmits electrical signals between the brain and the nerves in your legs, arms, back, and other parts of your body. The spinal cord runs through a hole in each vertebra of the upper and middle parts of your backbone, much like a piece of string through a beaded necklace. The space it runs through is called the spinal canal. At times, a message might signal pain or discomfort. The pain signal is an important one, because pain tells you that some part of your body needs attention. A serious injury to the neck or upper back runs the risk of damaging the spinal cord, causing paralysis of the parts of the body below the injury. It should be noted that the spinal cord is not present in the lower part of your backbone. Here the spinal canal contains a sack of nerves, the cauda equina.

Your backbone, with all its parts, cannot hold itself upright. It needs strong muscles, tendons, and ligaments for support. Muscles help you move or hold your position.

Tendons fasten muscles to bones. And ligaments stretch from one bone to another to hold bones together.

When should I see a Doctor for my back pain?

If your back pain is accompanied by any of the following, see a doctor today:

- weakness or numbness in one or both legs
- pain going down one leg below the knee
- back pain from a fall or injury
- back pain accompanied by fever without flu-like aches
- pain that continues to interrupt sleep after three nights or back pain that remains after six weeks of home treatment.

What will the Pain Doctor ask me?

1. What are your symptoms - that is, what aches or pains do you have?
2. Exactly where is the pain?
3. Where is the pain the most severe?
4. When did the pain begin? How long have you had it?
5. Did something specific cause your back pain, such as an accident or injury?
6. What home treatments have you used?
7. Were you under any additional stress when the pain began?
8. Do you have any other health problems?
9. What kind of work do you do?
10. In what types of recreational activities do you participate?

Think about these ahead of time so you can answer them easily. You also may have questions you'd like to ask the doctor. As you think of questions at home, jot them down and take them to the appointment.

Physical Exam for back pain

Next, your doctor will give you a physical exam. During the exam, the doctor may perform any of the following:

observe your muscles and joints; ask you to sit and lie down; ask you to move your back in different positions; observe and feel the area of most pain; and/or check to see if other areas of your body are tender or painful (such as the kidneys, intestines or other organs).

If the doctor can identify the likely cause of your back pain at this point, no further tests will be needed.

How Is a Diagnosis Made?

It often is difficult for doctors to find the exact cause of back pain, especially since there are so many possible causes. If the cause is unclear, your family doctor may suggest that you see an orthopaedist, neurosurgeon, pain specialist, or other medical specialist for diagnosis. If the doctor needs more specific information, he or she may ask you to undergo one or more of the following tests:

X-ray

Studies show that in many cases of routine back pain, X-rays may not initially be necessary. However, the signs and symptoms will determine what type of study should be done. In certain cases, X-rays might indicate that pain is due to:

- injury in one or more of the back bones;
- a tumor in the spine; a deformity in the spine;
- or ankylosing spondylitis.

CT Scan

Only a few people with lower back pain need a CT (computerized axial tomography) scan. If your doctor advises one, a special machine takes an X-ray scan of the area. A computer turns this scan into a three-dimensional view of the back. This helps the doctor see if there is a ruptured disc that can't be seen on regular X-rays. Other conditions that a CT scan can help detect are spinal stenosis, tumors and infections of the spinal cord.

MRI

MRI (magnetic resonance imaging) is another way to make very clear pictures of parts of the spine. The MRI does not use X-rays or radioactive dyes. It can provide clearer pictures of soft tissues such as muscles, cartilage, ligaments, tendons and blood vessels, in addition to bone structure.

Myelogram

During a myelogram, a special liquid dye called contrast medium is injected into the spinal canal. X-rays are then taken of the area. The contrast medium can make problem areas show up more clearly on the X-ray.

A doctor may order a myelogram to detect problems such as spinal stenosis or spinal cord tumors. If surgery is being considered, particularly for a person who has had a serious back injury, many neurosurgeons will require a myelogram beforehand.

Bone Scan

During a bone scan, a very small amount of radioactive liquid is injected into a vein and concentrates in the bones for a short time. A special radioactive detecting machine then will scan the area of concern to produce a picture.

Occasionally bone scans are done to look for damage or tumors in the bones themselves. However, back pain is rarely due to diseases of the bones.

EMG

Electrodiagnostic studies are used to help confirm the presence of nerve compression in the spine. An electrodiagnostic study consists of two tests. One is an electrical test, which is designed to study nerve conduction. In this test the nerve is given an electrical stimulation, and the speed of the impulse is measured. The other test is a needle test called an electromyogram, or EMG. The purpose of this test is to study the muscles for primary disease or for the effect of nerve compression on the muscle. The compression is especially seen in herniated discs or spinal stenosis.

Blood Tests

If your doctor orders blood tests for you, a laboratory technician will carefully draw a small amount of blood from a vein in your arm, which then will be tested in the laboratory.

Any one of the following blood tests may be ordered:

- erythrocyte sedimentation rate (sed rate);
- hematocrit and hemoglobin;
- white blood cell count;
- HLA B-27 test; or
- chemical profile (SMAC).
- Your doctor may order other blood tests. Ask for an explanation of the tests.

What are the odds of the acute back pain getting better?

Luckily, more than 85 percent of people with lower back pain improve with minimal treatment in a matter of days.

How is back pain treated?

Doctors generally prescribe one or more of the following treatments: rest, proper exercise, heat and cold, posture training, weight loss, stress management and relaxation exercises, medication, epidurals, spinal manipulation and/or surgery. For some back conditions, the doctor may refer you to another specialist such as an anesthesiologist, orthopedist,

rheumatologist, physiatrist, physical or occupational therapist, psychologist, psychiatrist or surgeon.

What type of exercise is best?

In general, walking, swimming or biking is ideal. These, along with some exercises designed to strengthen your back and stomach muscles, improve your posture can be incorporated into a 30 minute aerobic conditioning program three times a week.

The right kind of exercise program may help keep your back problem under control. It can make it easier for you to continue doing your daily activities. You may need to take a break from vigorous exercise if it makes your back pain worse. It is best to start slowly, and gradually build up each week. Ask your doctor and physical therapist before you start any exercise program when you have back pain. **DO NOT** carry out any exercise that makes your back pain worse!

How long should I rest?

Usually, two to three days of staying in bed, except to go to the bathroom, will be enough to ease your back pain. You may want to ask the doctor if special pillows or devices are necessary. Sometimes these aids give additional support to your neck, back or feet.

Is Heat or Cold better?

Whichever works for you. Heat relaxes muscles and soothes painful areas. There are many ways to apply heat. Some people like hot showers or baths, while others prefer using heat lamps, heating pads or warm compresses. If you have arthritis, heating your muscles first might make it easier for you to do back exercises. Be sure not to fall asleep while using heat.

Cold has a numbing effect. This often helps relieve pain. You might try one of these methods for applying cold:

- an ice bag;
- a large ice cube used to massage the area;
- a frozen package of vegetables (peas work best)
- a commercially made cold pack.

Be sure not to leave ice on after the skin becomes numb. This could lead to localized frostbite. Do not use cold if you are especially sensitive to it or have decreased circulation or sensation.

Can I change my posture?

Generally yes. If poor posture is thought to be contributing to your pain, then posture training may help. During posture training, an occupational or physical therapist will teach

you healthier ways to sit, stand, sleep and lift objects such as those listed on the following pages.

Techniques for Good Posture

When sitting:

- Sit in a firm chair with armrests to relieve pressure in your back and shoulders.
- Keep your upper back straight and shoulders relaxed. Keep stomach muscles pulled in, and maintain the proper curve in your lower back. You can do this by tightening your stomach and buttocks. Some people are more comfortable sitting with the back of the chair at a 15- to 20-degree angle. A small cushion behind the lower back to maintain the natural curve of the back also can be quite helpful.
- Keep your knees slightly higher than your hips.
- Use a footstool or book under your feet if necessary.
- Keep your feet flat on the floor or other surface.
- Don't sit for a long period of time. Stand up every now and then to stretch tight muscles and give them a chance to relax.

When Standing:

- Stand with weight equal on both feet.
- Avoid locking your knees.
- Ease tension in your back by placing one foot on a footstool.
- If you stand for long periods of time, wear flat or low-heeled shoes.
- Keep your back straight by tightening your stomach muscles and buttocks.

When Sleeping:

- Lie on your side with your knees bent.
- If more comfortable, place a pillow between your knees while sleeping on your side.
- If you sleep on your back, ask your doctor or physical therapist if placing pillows under your knees would help your lower back pain or make it worse.
- Use a firm mattress.

Body Mechanics:

To keep good posture while in motion is to use good body mechanics. In lifting, this means that the object lifted is held close to the body and that lifting is done with your legs. The normal back curves are maintained, the legs lift the load. Avoidance of twisting,

particularly when carrying a load, is also important for good body mechanics. Move your feet, do not twist your torso. Avoid the incorrect way, lift correctly.

- When bending down to lift an object, bend with your knees instead of your back.
- Hold the object close to you.
- Straighten your legs to lift the object.
- Get help with an object that is too heavy.

Do shoes make a difference?

The type of shoes you wear can also affect your posture. High heels may put more stress on your lower back by changing your posture. You might find it more comfortable to wear low or flat heels. Cushioned-soled shoes also provide “shock absorbency” for your spine.

How can I reduce stress in my life?

There are millions of pages of books around the world to answer this one. But for many people with back pain, the greatest stress comes from unwanted changes in their lives caused by the pain itself.

If your pain is acute, you may be able to reduce your stress by reminding yourself that you just need to wait until the pain disappears. However, if your pain has become chronic, you may need to take a good look at what you want to do, what you need to do and what you actually can do. Try to set some new goals that are more realistic, taking into account your pain and limitations. Talking to understanding friends and family members about your new goals and abilities can make this task easier.

Since we cannot remove everyday events from our lives, the key to controlling stress is changing how we react to daily living. Think about how you react to everyday events. What methods do you have for relaxing and releasing tension from daily stress?

Tips for Managing Stress

- First, learn to relax. There are many ways to relax and relieve stress without using drugs or alcohol or without spending a lot of money.
- Take a warm bath.
- Take 10-15 minutes to sit quietly and breathe deeply.
- Get involved in your favorite hobby or learn a new hobby.
- Start an exercise program.
- Pace yourself
- Take a short nap.
- Find a comfortable place for light reading.
- Meet a friend for a walk or a chat.
- Eat regular meals and take time to enjoy them.

- Plan fun activities with your family or friends.
- Do something nice for yourself.
- Learn relaxation techniques and set aside time to practice them.
- Take a stress management class.
- Learn to accept what you cannot change instead of feeling constantly frustrated.
- Try laughing instead of taking things too seriously. Take a positive outlook.
- Learn to manage your time effectively.
- **Get professional help.**

Can medications help?

If your back pain is not relieved using other forms of treatment, your doctor may prescribe medication. The medication chosen depends on the back pain. For example, medications called analgesics (an-all-GEE-sics) can help relieve pain. Other medications called muscle relaxants can help relax tight muscles. If your back pain is caused by arthritis, your doctor can give you medication that will reduce inflammation as well as relieve your back pain. The most common medications prescribed are called nonsteroidal anti-inflammatory drugs (NSAIDs). These medications can reduce inflammation without working like cortisone, the body's anti-inflammation steroid hormone. Aspirin and ibuprofen are NSAIDs. Other NSAID medications are prescribed when needed.

What questions should I ask the Doctor about medications?

1. What will the medication do?
2. How long will it take before I notice results?
3. What is the name of the medication? Is there a generic brand?
4. Are there side effects I should know about?
5. How should I take the medication (i.e. before or after meals, with or without food, etc.)?
6. How often should I take the medication?
7. What should I do if I forget to take a dose at the specified time?

Let your doctor know if you are taking other medications. Sometimes certain medications cannot be taken together.

Let H Rand Scott MD at Newport Pain Management help you with back pain. Call 949 759-8400 for an appointment today.

For more information go to http://paindx.com/Back_Pain.html