

Back to Life

2015

**NEW MINIMALLY
INVASIVE SPINE
SURGERY TECHNIQUES
SHORTEN INCISION,
SPEED RECOVERY**

**BACK PAIN?
HOW TO
GET BACK
OUTDOORS
IN 2015**

**BACK TO FISHING
GOLF & TENNIS**



BACK TO GOLF



**GET BACK ON COURSE IN 2015
WITH THESE TIPS FOR BAD BACKS**

If you've been told NOT to play golf or tennis, there may be new hope for you!

Unfortunately, there is no shortage of well-intentioned doctors who will prescribe a passive approach to back pain: "stay in bed", "don't go to work", "quit playing golf", etc.

But that's old school medicine for back and neck pain, according to Dr. Steven Valentino, a fellowship-trained spine surgeon at Liberty Spine Care who specializes in minimally invasive spine surgery in Philadelphia and South Jersey. Dr. Valentino notes that the key to recovery from back pain is movement.

"That's because when a person restricts activity they begin to add on pounds. Then they get heavier and become at more risk of future strain," Dr. Valentino explains. "The key is to break that

"Movement is like lubricant for the back. By stopping activity a person can add on pounds. Then they get heavier and become at more risk of future strain."

— Dr. Steven Valentino, spine surgeon

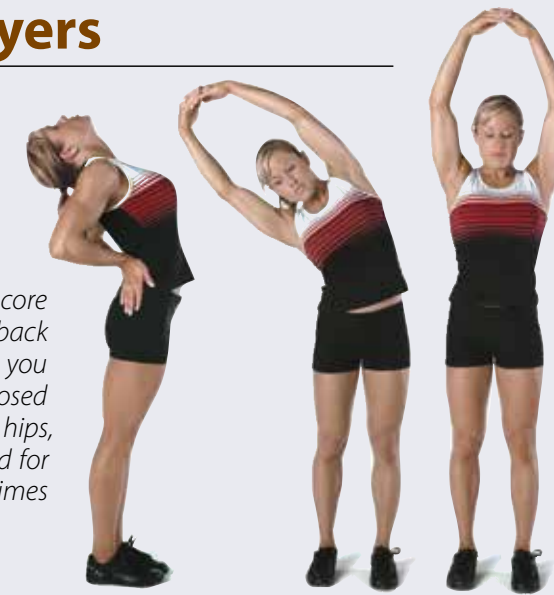
cycle of disability by moving again, even with just walking, which is a great low impact exercise for back pain. Start with only nine holes at a time. Riding in the cart can be hard on a sore back. Instead, let your playing partner drive the clubs around while you walk a part of each hole. If necessary, work up to nine holes by playing every other hole to start with until you feel comfortable with an entire nine. Then work up to 18. Playing twilight is less expensive and the pace is slower."

Liberty Spine Care provides some exercise tips here that can get you back on the golf course or tennis court in 2015. In addition, the spine center provides a free 36-page Home Remedy Book that you can request at LibertySpineCare.com.

Stretches for golf & tennis players



STANDING EXTENSION
Right: Extension is a core exercise for many back problems, provided you haven't been diagnosed with stenosis. Hands on hips, lean backward, and hold for 5 seconds. Repeat 10 times slowly.



STANDING STRETCH
Above: With hands outstretched above your head, lean first to the right, hold for 3 seconds, then stretch to the left. Repeat several times.

Liberty Spine Care recommends these stretches for golfers and tennis players who need trunk rotation:

ROTATION
Above: Put a golf club across your back and rotate your trunk in both directions.



STANDING PIRIFORMIS
Right: Lean against a tree for support. Then raise your knee up, and across your body. Hold for 5 seconds and repeat with other leg.

STANDING FLEXION
Right: Bend at the waist, keeping legs straight and try to touch your toes. Hold for 5 seconds, and then return to standing position. You can alternate this with extension stretches.

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- 1** GET LOOSE. Do NOT jump start your swing on the first tee, and do not try to hack a long iron out of the rough on the first hole. Start some stretches before you leave home, and then leave about 20 minutes to warm up on the driving range.
- 2** STRETCH BETWEEN HOLES. Slow play is a great time to do the stretches shown above. Fred Couples, who has played pro golf for years with a bad back, frequently does the standing piriformis stretch while leaning against a tree.
- 3** ADAPT. Most putters can get the ball out of the hole and into your hand without having to bend over. You can also lengthen short irons to lessen the amount you bend at the waist. Others use a long "belly putter" to lessen back strain when putting.
- 4** GET A LESSON. The old "reverse C" finish position from the 1970s strains the back. Most pros today teach a finish position where the back is straight at the finish. Good form is easier on the spine.



1st tee reminders

Back in the FIELD & STREAM

Hunting and fishing can be a great experience. Gear, rifles, tents, provisions, tackle box, rods, reels and gear all must travel with the hunter or fisherman. Here's how to prepare for your next outing. The press up exercise below is a standard stretch that can relieve simple cases of back pain. Start on your stomach, and slowly press up as far as possible.



Avoid extension exercises if you have been diagnosed with spinal stenosis, or are over 60 years old. Never do any exercise that causes increased pain.

PREVENTING A BACK STRAIN

HOW TO LIFT: 2 OPTIONS THAT WORK

Hauling gear on a hunting or fishing trip can be the riskiest thing for your back. The most common cause of back strain is lifting something too heavy or bending at the waist. Instead, use the strength of your legs. Bottom series: Start with one knee on the ground. Maneuver the object in between your feet. Raise the object with your arms up to mid-thigh, then stand up while keeping your back straight. Another method (upper left) is to squat, maneuver the object between the feet, lock the arms, keep your back straight and use your legs to stand up. Don't bend at the waist.

OPTION #1



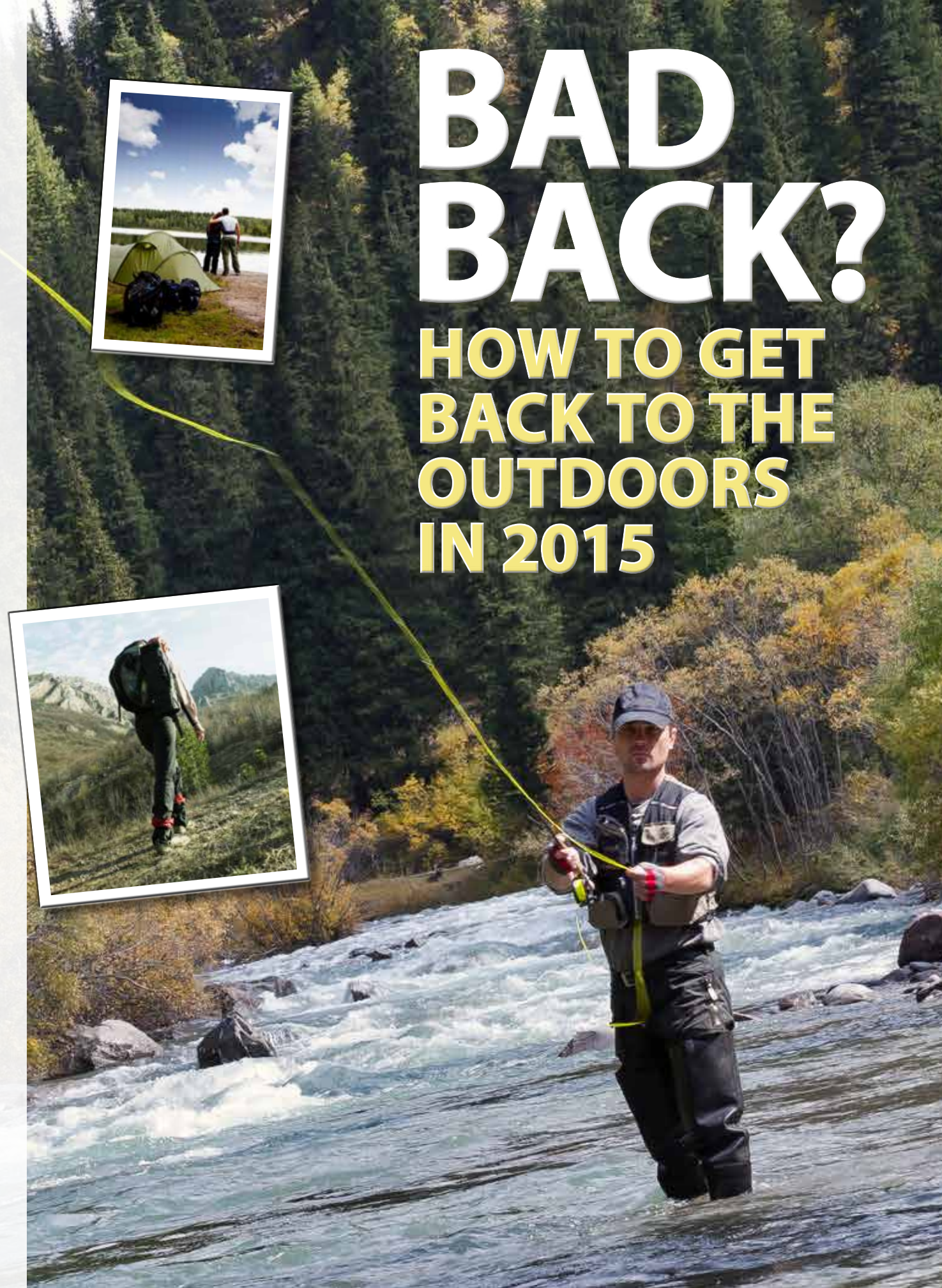
NO!



OPTION #2



BAD BACK? HOW TO GET BACK TO THE OUTDOORS IN 2015



EXTENSION STRETCHES

Hunting will require stamina and core strength, even if you have someone else do the heavy lifting.

BELOW: On hands and knees, raise your left arm up and out, while you raise your right leg up and back. Hold for 5 seconds and return to starting position. Repeat with the opposite arm & leg. Do 10 repetitions.



FLEXION STRETCH: THE CAT

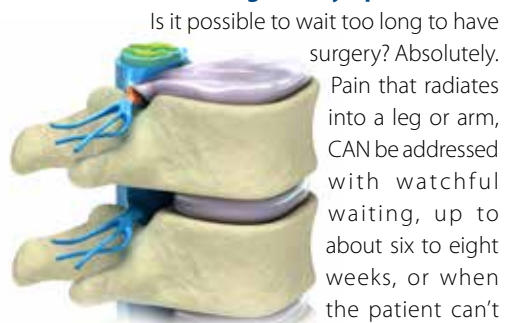
Some back problems respond better to flexion rather than extension. See if this stretch relieves your symptoms. If it worsens symptoms, discontinue any flexion stretch.

BELOW: On hands and knees, arch your back upward. Hold for 5 seconds and return to starting position. Do 10 repetitions.



About 80% of back and neck pain symptoms can go away on their own with special exercises. That's the good news. The bad news is that if you are in the other 20%, you need to get informed about how to manage your care. That's because in spine it's very common for various spine care providers to be biased to the treatment they were trained in. While surgeons may be biased toward using surgery as a quick way of repairing a damaged disc, non-surgeons can also be excessively biased to waiting and delaying surgical intervention for six months or more. The patient then becomes frustrated with constant, disabling pain.

Understanding back symptoms



Is it possible to wait too long to have surgery? Absolutely. Pain that radiates into a leg or arm, CAN be addressed with watchful waiting, up to about six to eight weeks, or when the patient can't

NON-SURGICAL TREATMENT OPTIONS FOR BACK & NECK PAIN AND WHEN IT'S TIME FOR SPINE SURGERY

endure the discomfort any longer.

"Watchful waiting should NOT be used, however, when the symptom involves numbness, tingling or weakness in a leg or arm," explains Dr. Steven Valentino, a board-certified, fellowship trained spine surgeon at Liberty Spine Care. "While the difference may seem subtle to the patient, it is extremely different. Weakness, numbness and tingling is a neurological sign that the disc herniation may be causing permanent damage to the nerve root. If the patient doesn't address this

quickly, that numbness or tingling in the foot or hand could become permanent."

Consequently, if you've been diagnosed with a herniated disc — and non-surgical options don't appear to be working — it's a good idea to consult a spine surgeon to become educated on your surgical treatment options.

Even with radiating pain, waiting beyond six months may not be good either. Some research shows there may be a window of time where the disc responds best to surgery. "A nerve root is

UNDERSTANDING SYMPTOMS AND WHEN HOME REMEDIES CAN BE USED

It's important to understand what may be causing your back pain. For example, 80% of back pain is related to strain of the muscles in the back. The other 20% of back pain can come from disc-related problems. How do you know the difference? Disc-related problems create symptoms that radiate pain or numbness into the leg or arm.



People can request the Liberty Spine Care 36-page Home Remedy Book through the web site at LibertySpineCare.com.

"Make no mistake, a back strain can be excruciating and drop you to your knees," explains Dr. Steven Valentino, a fellowship-trained spine surgeon at Liberty Spine Care.

"With a disc problem in the back, the symptoms are typically felt in the leg," he explains. "A herniated disc in the neck will radiate pain or numbness into the arm or hand.

Weakness or numbness in the foot are emergency symptoms that need to be seen within a week to prevent these symptoms from becoming permanent. So while watchful waiting can be used for radiating pain in a leg or foot, that is NOT the case with numbness or weakness in a leg or foot."

"Even disc problems can benefit

from movement," adds Dr. Valentino. "It can seem like a formidable journey back to work, let alone activities like golf or tennis, but the journey back to activity often starts with taking the first step off the couch. We encourage patients to stay active."

As a community service, Liberty Spine Care distributes a free 36-page Home Remedy Book with a symptom chart and custom stretches that can relieve many cases of back and neck strain.

A person can request this Home Remedy Book at the spine center's educational online spine encyclopedia at LibertySpineCare.com.

In a bulging disc, the nucleus has not broken through the disc wall. In a herniated disc, the disc wall has torn and the nucleus then can pressure a nerve root, causing radiating pain into a leg or arm. Spine surgery is never appropriate for a bulging disc. And even symptoms from a herniated disc can be relieved in many cases with spinal injections and spine-specialized therapy. But in some cases, spine surgery may be the only option if there is weakness in a leg or arm.

Dr. Valentino excels in helping patients return to activity with individual and comprehensive treatment plans. When surgery is necessary, he prefers to use minimally invasive surgery techniques for the benefit of patients.

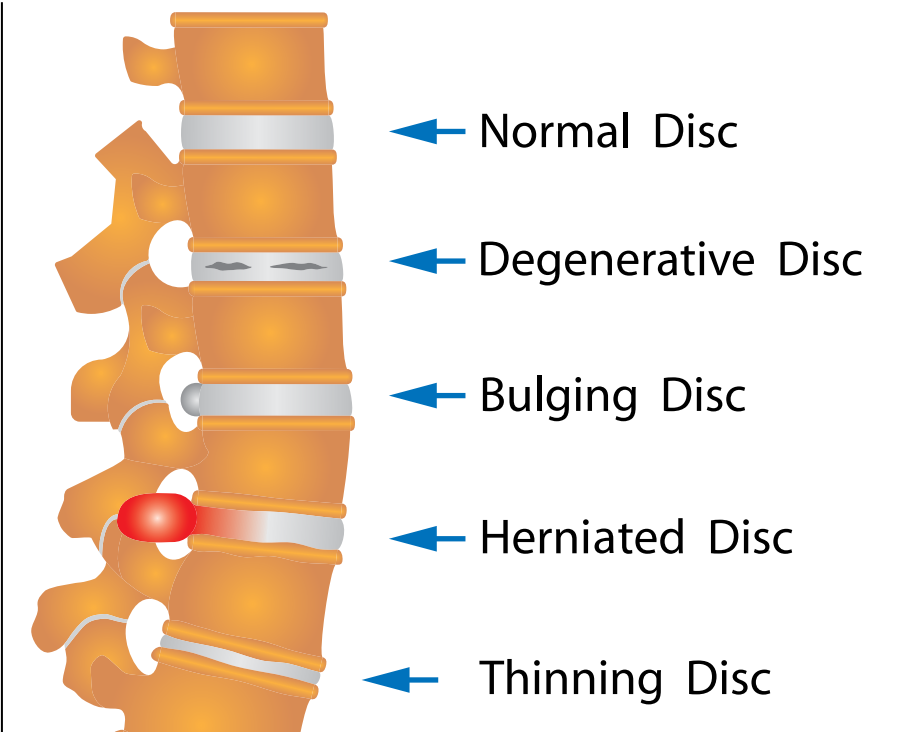
like a garden hose," explains Dr. Valentino. "A herniated disc can press on the adjacent nerve root interrupting circulation, like a car parked on top of a garden hose lying in the driveway. If you leave the car on that hose for six months, even after you move it, there may be a permanent crimp in that hose."

In summary, watchful waiting may be okay for radiating pain but NOT for weakness, numbness or tingling. And waiting longer than six months with radiating pain may compromise how well eventual spine surgery will be at relieving symptoms.

Dealing with herniated discs

There are three main options for dealing with a herniated disc.

1. Therapy: A herniated disc can cause painful pressure on the nearby nerves that branch off from the spinal cord. Many herniations occur in the back of the disc wall. Special extension exercises where the back arches backward can compress the back side of the disc, which in turn creates a vacuum toward the front of the disc. It's believed that this vacuum can suck the herniation back inward, which



then relieves pressure on the adjacent nerve root. While the disc herniation has not been fixed, the symptoms disappear. Chiropractic manipulation and hands on manual therapy may also provide relief from some symptoms.

2. Injections: Inflammation from a herniated disc pressing on a nearby nerve root can act like a ring on a swollen finger. By reducing inflammation, the pain symptom disappears and the ring is no longer a problem. "The purpose of a spinal injection is to reduce inflammation around the nerve root," explains Dr. Valentino. "By placing medication directly around that nerve root, we can reduce pain symptoms long enough to get the patient into therapy and exercise. In many cases, an injection can resolve symptoms without the need for surgery. If you haven't tried spinal injections, you may be resorting to surgery too quickly. It's your last nonsurgical option."

3. Surgery: When surgery is performed, the disc wall is not repaired, rather the herniated part of the disc is removed, which then reduces the pressure on the nerve root. Surgery may be the only

permanent solution for many herniated discs that do not respond to injections or therapy. New minimally invasive spine surgery techniques used by Liberty Spine Care enable many patients to be home later the same day.

A team approach

"The key is to exhaust non-surgical treatment options first," summarizes Dr. Valentino. "But if injections or therapy fail to work, or if symptoms become more severe, it's crucial to move quickly.

The good news is that there are many minimally invasive surgery advances that enable patients to make a quick recovery."

DO YOU NEED SPINE SURGERY? GET A 2ND OPINION FIRST



Too many times back & neck pain sufferers bounce from one specialist to another in the quest for relief of symptoms. For the family physician, managing back patients can be complex and challenging.

Liberty Spine Care's offices in King of Prussia and South Jersey provide primary care physicians and chiropractors a valuable resource when they have a patient with a complex spine problem who may need surgery.

"Today the consumer can see TV ads for laser spine surgery and think that a miracle cure lies in a future surgery or a magic pill," says Dr. Steven Valentino, a fellowship-trained spine surgeon. Liberty Spine Care believes in an approach that exhausts non-surgical treatment options before spine surgery is considered. One of every four new patients coming in our front door has already had spine surgery elsewhere. Sadly, too many of these patients never needed surgery in the first place. Now they have failed

back surgery syndrome which is tougher to treat."

Dr. Valentino provides the following recommendations when someone is told they need spine surgery:

1 First, get a 2nd opinion.

Why, because you may not need back surgery at all. Many times a surgeon may tell a person that their MRI shows a herniated disc and they need spine surgery. However, research studies show that 40% of people over the age of 40, with no back symptoms whatsoever, have disc problems that would show up on an MRI. So having a herniated disc on an MRI is not necessarily a reason you should jump to back surgery.

2 What surgery is really necessary?

Even if you do need surgery, a second opinion may recommend a minimally invasive approach that involves a tiny incision instead of a major surgery with a large incision.

Also, if you've been told by the first surgeon you need a fusion, a second opinion may disagree with that. You may not need a fusion at all, or any screws or plates. Too many times, a surgeon may be biased toward an approach that may not be the best approach for the patient.

The second opinion may also provide a new perspective to things like laser spine surgery.

3 Learn your treatment options.

If the spine physician doesn't offer therapy or an injection as a possible way to relieve symptoms, you may be getting an unnecessary surgery. Dr. Valentino notes, "We provide spinal injections as a treatment option so a person has the comfort of knowing they exhausted all non-surgical treatment options. There are many cases where the symptoms of a herniated disc can be relieved with a single injection. Surgery should be the treatment of last resort."



WHEN YOU NEED TO GO TO THE DOCTOR TO PREVENT PERMANENT PROBLEMS

WHAT DO YOUR BACK OR NECK SYMPTOMS INDICATE?

Many back or neck problems can improve on their own or with non-surgical treatment. However, some symptoms represent emergencies and need to be seen immediately by a spine specialist to prevent permanent nerve damage.

PAIN IN THE ARM: Pain that radiates into an arm below the elbow can imply a herniated disc in the neck. But many times, radiating pain can be treated non-surgically. Radiating pain is a symptom that should be seen by a spine specialist within two weeks.

NUMBNESS/TINGLING/WEAKNESS IN ARM/HAND: Numbness or tingling in the arm or hand is a more serious symptom that is NOT appropriate for watchful waiting. Left untreated, the symptom can become permanent. You should see a spine specialist within 5 days.

PAIN IN THE LEG: Pain that radiates into a leg below the knee can imply a herniated disc in the low back. But many times radiating pain can be treated non-surgically. Radiating pain should be seen by a spine specialist within two weeks.

NUMBNESS/TINGLING/WEAKNESS IN ARM/HAND: Numbness or tingling in the arm or hand is a more serious symptom that is NOT appropriate for watchful waiting. Left untreated, the symptom can become permanent. You should see a spine specialist within 5 days.

LOSS OF BOWEL OR BLADDER CONTROL - This is an emergency symptom that needs to be treated immediately by a spine surgeon within 48 hours. If you experience these symptoms at night or on the weekend, go to the emergency room. If not treated quickly, the person may lose control over their bowel and bladder permanently.

FEVER, DROWSINESS, SEVERE HEADACHE, NAUSEA, VOMITING, UNUSUAL SENSITIVITY TO LIGHT? While it's rare, these could be serious symptoms related to a neck injury or neck problem. To be safe, you should consult your family physician promptly to determine the cause of the symptoms.

PAIN LIMITED TO THE NECK: Neck pain can be caused by traumatic injury, like whiplash from a car accident, or muscle or ligament strain. See our Home Remedies section on our Internet site. If pain persists beyond a week, you should see a spine specialist to determine the underlying cause.

PAIN LIMITED TO THE LOW BACK: Pain that is limited to the low back can often be a result of muscle strain. While pain spasms can be excruciating, muscle strain problems do not require surgery. See our Home Remedies section on our Internet site for special stretches that can relieve pain, and the proper use of anti-inflammatories. However, if pain persists beyond a week, it could imply something different than muscle strain, and you should see a spine specialist to determine the underlying cause.

PAIN RADIATING BELOW THE KNEE: When pain radiates below the knee, it could imply a herniated disc. While many times this can be treated non-surgically, you should see a spine specialist within 5 days.

FOOT DROP / WEAKNESS IN FOOT: If pain, weakness or numbness extends into the foot so that you are unable to lift your toe as you walk, that is called Foot Drop, which is an emergency symptom. You need a spine specialist within 48 hours. If not treated promptly, it could lead to permanent weakness in the leg.



Minimally invasive spine surgery shortens incisions, speeds recovery

Minimally invasive spine surgery has evolved over the last 30 years to address a variety of spinal disorders including herniated discs, spinal deformity, injuries, fractures and degenerative disc disease.

Some spine surgeons have been quick to adopt this new minimally invasive technique along with the equipment needed, as it presents many benefits to the patient. With that said, there are some surgeons who are more comfortable doing traditional back and neck surgery because of the time involved to be trained and experienced in minimally invasive spine surgery.

Consequently, a patient needs to be well informed about the options available to them currently and to select a surgeon who is able to use the

new instrumentation involved with minimally invasive spine surgery. A patient should ask if a minimally invasive approach will be used, the length of the incision involved, and the length of time in recovery after surgery.

Compared to a three-inch incision in traditional spine surgery, a surgeon performing minimally invasive spine surgery can access the spine through a small hole the size of a dime to allow a special endoscope to be inserted.

At the end of the scope is a camera with a video feed to a TV screen, enabling the surgeon to view the surgical area through the scope. A minimally invasive tubular retractor (MITR) is used to gain access to the spinal column. The device goes through a small keyhole in the

muscles of the back, reducing the disruption to ligaments. The portals are left in during the entire surgery to allow specially designed surgical tools to move freely into the patient's spinal column and not to damage the soft tissue from exiting and inserting equipment. When the portal is removed at the end of the surgery, the surrounding soft tissues slowly fall back into their normal place and only a few stitches are needed to close the incision.

By contrast, traditional open back surgery pulls the muscles away from the spine which disrupts the tissue causing more discomfort after surgery.

Minimally invasive spine surgery reduces the hospital stay, reduces pain, results in less blood loss during surgery which can lessen the need for

donated blood and all the risks inherent in that. There is also less chance of infection than traditional open back surgery. A smaller incision typically translates into a faster return to recreational activities and work.

While many surgeons may market "minimally invasive surgery" in an effort to attract patients, unfortunately the patient may end up with a traditional, open spine surgery. Minimally invasive spine surgery is more difficult for the physician because it involves a great deal of training to become proficient. (Imagine learning to tie your shoes with instruments rather than using your fingers.)

Liberty Spine Care is at the forefront of minimally invasive surgical treatment. When surgery is necessary and if a patient is a candidate for a minimally invasive procedure, Dr. Valentino prefers to use a minimally invasive technique for patient benefit. Benefits of minimally invasive spine surgery include:

- Smaller incision
- Smaller scar
- Less damage to tissues and muscles
- Less blood loss
- Less post-operative pain
- Less painful recovery
- Quicker return to activity

Unlike many other spine care providers, the spine patients who undergo minimally invasive surgery at Liberty Spine Care can often have their surgery on an outpatient basis and be home later the same day. Recovery in one's own home can be more comfortable than staying in a hospital bed.



Minimally invasive surgeries performed by Liberty Spine Care

MIS Lumbar Discectomy

A minimally invasive lumbar discectomy is when a herniated disc is removed in the lower back that pinches a nerve that may cause severe leg pain, numbness, or weakness. This procedure is done by making a small 1-inch incision over the herniated disc and inserting a tubular retractor. Then the surgeon removes a small amount of the lamina bone that allows the surgeon to view the spinal nerve and disk. Once the surgeon can view the spinal nerve and disk, the surgeon will retract the nerve, remove the damaged disk, and replaces it with bone graft material.

MIS Posterior Cervical Discectomy

A minimally posterior cervical discectomy is when a herniated disc is removed in the back of the neck that pinches a nerve that may cause severe leg pain, numbness, or weakness. This procedure is done by making a small 1-inch incision over the herniated disc and inserting a tubular retractor. Then the surgeon removes a small amount of the lamina bone that allows the surgeon to view the spinal nerve and disk. Once the surgeon can view the spinal nerve and disk, the surgeon will retract the nerve, remove the damaged disk, and replaces it with bone graft material.



MIS Lumbar Fusion

A minimally invasive lumbar fusion can be performed the same way as traditional open lumbar fusion, either from the back, through the abdomen, or from the side.

Transforaminal Lumbar Interbody Fusion

A common minimally invasive procedure is called the TLIF. This procedure is done by approaching the spine slightly from the side, which reduces the distance spinal nerves must be moved and prevents disruption of the midline ligaments and bone. However, this does not provide the surgeon with a full view and is often more challenging to remove the disk completely, which can make fusion healing more difficult. As a result, a surgeon may use additional bone graft besides the patient's bone to improve healing. The surgeon may complete this procedure by placing one retractor on either side of spine. By using two retractors, the surgeon can remove the lamina and the disk, place the bone graft into place, and insert screws or rods for additional support.

Minimally invasive surgery with a lateral approach

A complex minimally invasive surgery with lateral approach is a minimally invasive technique that is performed on the side of the body, which is less invasive as compared to traditional surgery. This procedure can be used to help treat various conditions such as degenerative disc disease, herniated discs, spinal instabilities, osteomyelitis and spondylolysis.

Lateral interbody fusion (LIF)

A LIF is performed by removing a disc and replacing it with a spacer that will fuse with the surrounding vertebra. The procedure is completed on the side of the body in order to reduce the effect on the nerves and muscle of the back.

Percutaneous posterior pedicle screw

A percutaneous posterior pedicle screw fixation is when metal rods are attached along a vertebra to help stabilize the spine.

Endoscopic discectomy

An endoscopic discectomy is per-

formed by making a tiny incision to insert a tiny camera, or endoscope, to remove part of a herniated disc that is applying pressure on spinal nerves.

Posterior cervical microforaminotomy (PCMF)

A PCMF is performed to help relieve pressure and discomfort in the spine by making a small incision in the back of the neck and removing excess scar tissue and bone graft material.

Anterior cervical discectomy

An anterior cervical discectomy is used to reduce pressure or discomfort in the neck by removing a herniated disc through a small incision in the front of the neck. The space is then filled with bone graft material and plates or screws may be used to increase stability.

Artificial cervical disc replacement or total disc replacement (TDR)

A TDR occurs when most or all of a disc is removed and replaced with an artificial one.

Anterior lumbar interbody fusion (ALIF)

An ALIF is a procedure done to remove a disc through an incision in the front of the body through the abdomen. The disc is removed and replaced with a spacer that contains bone graft material that will fuse with the surrounding vertebra.

Mini ALIF

A Mini ALIF is the same as a standard ALIF, but is done through a smaller incision in the front of the body to remove the disc and replace the disc with a spacer that will fuse with surrounding vertebra to increase spinal stability.

Laminectomy

A Laminectomy is a procedure done to help decrease spinal pressure by removing all of the lamina, which is the thin bony layer that covers the top of the spinal cord.

Laminotomy

A Laminotomy is a procedure done to help decrease spinal pressure by removing part of the thin bony layer that covers the top of the spinal cord called the lamina.



HOW INJECTIONS CAN RELIEVE BACK & NECK PAIN

Pain is your body's natural alarm signal that something is wrong. Maybe you lifted something too heavy, your back was too weak, or you have a disc problem.

The spinal cord consists of a network of nerves that transmits these warning signals to the brain. The spinal cord and nerve roots thread up through the bony vertebrae. The spinal cord is encased by the dural sac, which contains fluid that nourishes the spinal cord.

How injections work

When a disc herniates it can press on adjacent nerve roots the branch off from the spinal cord. Surgery doesn't repair the disc wall, but rather removes the herniated tissue which in turn relieves the pressure on the nerve root.

Another way to relieve pressure on a nerve root is to

inject pain medication directly to this area which reduces inflammation and pain symptoms.

When spine physicians choose to use injection therapy, their ultimate goal is to relieve pain long enough to enable the patient to begin physical therapy.

"Relief from such injections can last anywhere from a few weeks to a few months and sometimes longer, especially if therapy is used simultaneously to strengthen muscles in the back. In other cases, an



injection may bring patients minimal or no pain relief," explains Dr. Steven Valentino, spine surgeon.

During an injection procedure, the patient lies on his/her stomach to enable a C-arm fluoroscopic device to

Herniated Disc

HOW INJECTIONS WORK
Medication is injected into the area surrounding a nerve root, which reduces inflammation and relieves pain. Relief from such injections can last anywhere from a few weeks to a few months and sometimes longer, especially if therapy is used simultaneously to strengthen muscles in the back.

provide X-ray images of the spine. Local anesthetic may be injected into the skin and underlying tissues to reduce discomfort from the injection.

Next, a needle is inserted into the epidural space, with the vertebrae serving as "landmarks." The physician views images from the C-arm to make sure the needle is positioned correctly. The corticosteroid injection may include a saline solution or a local anesthetic. The dosage, volume and components will vary according to each individual patient.

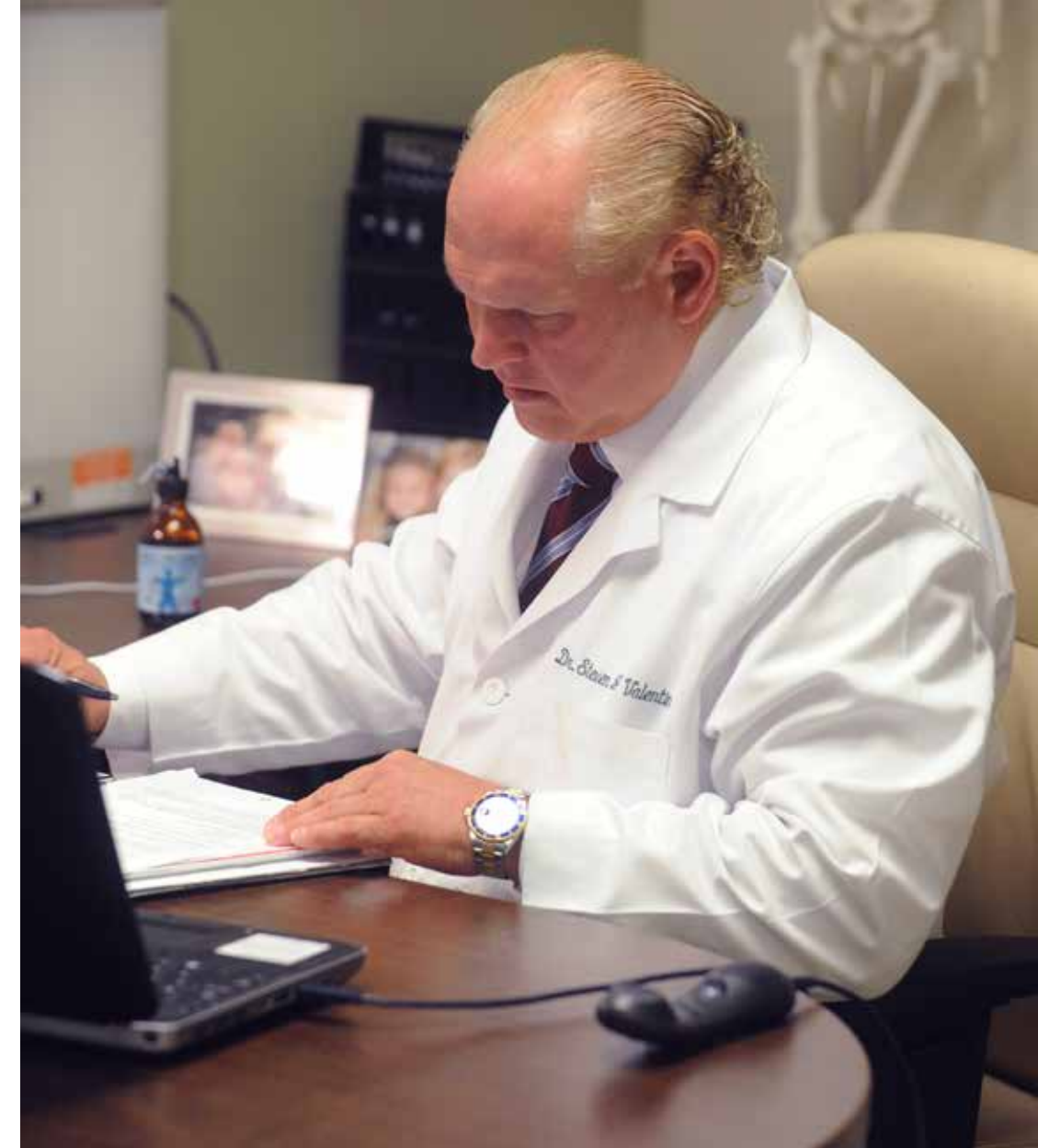
Once the needle enters the epidural space, a syringe containing corticosteroid solution is connected to it. After ensuring the needle is in the correct place, the solution is slowly injected. During this time, you will be able to communicate with the doctor, and the most common sensation reported is one which resembles the feeling of "pins and needles."

The risks involved

There are risks involved in any operation or injection procedure. Injections involve less risk than surgery. In the case of epidural steroid injections, risks are minimal.

Lumbar (low back) epidural injections involve less risk than cervical (neck) injections, because lumbar injections are performed away from the spinal cord and focus on the nerve roots.

There are some potential side effects and complications to any spinal injection, most of which relate to the way



in which the injection is administered rather than the actual steroid itself.

As with any injection into the skin, it is possible for an infection to form if bacteria enters the puncture, but the risk of this occurring in the case of an epidural injection is low.

It is also possible during an injection procedure for a nerve to become damaged, causing pain to shoot through the leg. This may occur if the needle touches the lining surrounding a nerve. Use of the C-arm for guidance reduces this risk.

Other side effects of epidural steroid injections could occur based on the dosage of anesthetic or corticosteroid used or if the drugs are injected into the spinal fluid rather than the epidural space. However, these side effects are rare.

Frequency of injections

Years ago, a spine physician might try two or three injections. That is no longer the case. You are unlikely to benefit from repeated epidural steroid

injections if the first or second does not provide relief. Consequently, you should not receive more than three injections if none of them have helped.

Even if a spinal injection does provide relief, only in exceptional cases will more than three be recommended over a three-month period.

Generally speaking, if you are requiring continual injections that is a sign that the herniation may need surgery to permanently relieve symptoms.

Q The last time I saw the doctor for back pain, he takes X-rays, and points at them in front of me, but I'm puzzled as to what he's looking at. What is he looking for on X-rays?

A In medicine, the physician tries to diagnose what is causing pain symptoms by "ruling out" the more serious causes first, until you end up by process

of deduction with likely causes and possible treatments. X-rays are inexpensive, but they only reveal bones, rather than nerves, ligaments, soft tissues or even the discs between your vertebrae. Still, your back physician can use X-rays to "rule out" serious problems like fracture of the bones in the spine which may have been caused by a fall or accident. If he or she sees no fractures, that's a good sign and spinal fracture is ruled out as a likely cause of your pain symptoms.

Next, the back physician may review inexpensive X-rays for signs of a herniated disc. Even though X-rays don't show the disc itself, the physician may suspect the presence of a herniated disc when there is a narrowing of the disc space between



What is my doctor LOOKING AT?

Questions and Answers with Dr. Steven Valentino

two vertebrae. This in turn may lead the physician to order another more expensive diagnostic test that reveals disc tissue: An MRI, which stands for Magnetic Resonance Imaging. Both an MRI and X-ray are painless. An MRI resembles an internal black and white snapshot of the inside of your body, including the discs in your spinal column. By combining these diagnostic tests with information about your symptoms, the spine specialist can recommend non-surgical treatment options to try before surgery is considered.



MRI - Suspected Herniated Disc in Lumbar Spine

Q I was shoveling snow outside for hours, and now I seem to have a persistent back problem, where I didn't have one before. I find myself reluctant to do more than lay on the couch. Could I have done some permanent damage?

A Shoveling snow is brutal on the back. Next to a garbage collector who has to lift, twist and throw with his back, snow

shoveling is a close second. For one, you are cold and not warmed up. Two, you are bending over and lifting something that is not close to your body. Three, if the snow is wet, like snow typically is around Philadelphia, each shovel full of snow can be 30 lbs. This is a prescription for back strain.

An attack of back pain can stop you from doing anything physical for fear of hurting yourself. So, you do less and less. So your back becomes weaker and less flexible, so they are susceptible to strain.

Since you didn't have a problem before, and you haven't mentioned pain or weakness into your legs, there is a good chance you just have a simple back strain.

The good news is that back strain doesn't require surgery, and will typically get better with some anti-inflammatories like Advil or Aleve.

Next, you need to start with some special stretches designed for the back. You can find them in our free Home Remedy Book, or at LibertySpineCare.com. These exercises will begin to loosen up tight tissues and make your back stronger, more flexible and resistant to future strain.

Start moving with some walks in the neighborhood. Lastly, we recommend you retire the snow shovel. Spending the money to buy a snowblower may cost you \$200, but a trip to the doctor can cost a lot more than that.

Q I was out skiing last weekend, took a couple falls, and now my back hurts? What symptoms need to be seen by a doctor?

A In the realm of spine, pain can be a misleading indicator of the seriousness of a back problem. Here's why: A back spasm will drop you to your knees in extreme agony. However, a spasm is typically from a muscle strain which is never a surgical problem. In fact, with some anti-inflammatories, a day or two of rest, then a walk, you can be back to normal. But, any time you have pain that does not go away on its own over three days, then it's time to see a doctor.

With that said, because you mentioned that you fell, that is a red flag signal because you could have fractured a spinal vertebra, which can be very serious. The general rule of thumb is if the pain, numbness, or weakness radiates into an arm or leg, that needs to be seen within a week.

Symptoms for back and neck pain are complex. The best thing to do is visit our Internet site at LibertySpineCare.com which has a symptoms chart for neck and back symptoms.

Q I read something in a magazine about the artificial disc? I've been diagnosed with a herniated disc in the past, and symptoms like radiating pain come and go. Is this something that would be the permanent solution for my back problem?

A The artificial disc has been around for about 15 years in Europe, and now various types of artificial discs are now FDA approved for use in the United States in the low back and neck.

In theory, the notion of retaining motion at the disc level with an artificial disc makes sense rather than locking the vertebrae with a fusion.

However, most prudent spine surgeons are cautious about recommending the current generation of artificial discs because they only address the side-to-side rotation in the back and neck and not

the shock absorption provided in up and down impact.

Also, long term studies are still inconclusive about how long these man-made discs can last. Unlike a knee replacement or hip replacement that needs to be revised, revision surgery around the spinal cord to remove a worn out artificial disc is complex.

The most optimistic use relates to artificial discs in the neck area, because the neck area is easier to access during surgery because you are accessing the cervical area through the front of the neck rather than going through the chest to reach the front of the lumbar spine.

Also, if the implant needs to be revised or removed, that surgery is easier to do in the neck area than the low back.

At Liberty Spine Care, we can provide options related to the artificial disc, but it all relates to each person's diagnosis.

Q I have back pain that radiates down into my leg. It just started about a week ago. At what point should I consider spine surgery?

A With back pain, there is a difference between radiating pain into a leg or arm, and weakness or numbness in a leg or arm. It's okay to use watchful waiting for radiating pain for up to six weeks or so,

but NOT okay when you have weakness or numbness, which implies a nerve impingement. These symptoms can become permanent if you don't resolve them promptly. At Liberty Spine Care, we can provide spinal injections that can relieve both of these symptoms. But more importantly, if these symptoms don't respond to non-surgical treatment options, we can perform minimally invasive spine surgery to resolve these symptoms.

Q My back pain comes and goes. Recently I had a spasm that sent me off to the back doctor in my local town. He said I had a back strain and he prescribed physical therapy, which consisted of me lying on a table while the therapist applied some heat, ice and ultrasound. While it felt good at the time, a day later the spasm returned. What do I do now?

A Sadly, you received what is called "palliative care" which means that it feels good but cures nothing. General physical therapy or massage may feel good, but the long term cure is to stretch back muscles with customized exercises that make the back more flexible and resistant to future strain. Spine therapists have much more training than a general therapist, and will be able to get you moving again.





LIBERTY SPINE CARE

PHYSICIAN PROFILE:

STEVEN VALENTINO, D.O.

*Board-Certified Orthopedic Surgeon, Fellowship-Trained Spine Surgeon
Board-Certified American Board of Independent Medical Examiners
Board-Certified American Academy of Disability Evaluating Physicians
Trained in Independent Medical Examinations*



Dr. Steven Valentino is a board-certified orthopedic surgeon who is fellowship-trained in spine, which is the highest level of medical education possible in the United States. The difference between a M.D. degree (Medical Doctor) and D.O. Degree (Doctor of Osteopathic Medicine) is that osteopathic doctors have additional training in the structure of the musculoskeletal system, including how movement or manipulation can in some cases relieve pain symptoms. Both M.D.s and D.O.s can prescribe medicine, and orthopedic surgeon M.D.s and D.O.s perform the same surgeries. Fellowship-training related to spine surgery is typically identical between both MD and DO degrees.

Dr. Valentino has practiced orthopedic surgery specializing in spine in the Philadelphia and South Jersey region for more than 25 years. Over that period, he has performed more than 5,000 successful spine surgeries. He was one of the first surgeons in the Philadelphia/South Jersey region to be trained in minimally invasive spine surgery and artificial disc replacement surgery.

Dr. Valentino completed his year-long spine fellowship at the Presbyterian University of Pennsylvania Medical Center in Philadelphia in 1988. Before that, he completed a residency in orthopedic surgery where he was named "Chief Resident." During his hospital internship, he was named the "Intern of the Year." His Doctor of Osteopathic Medicine degree was received in 1982 from the Philadelphia College of Osteopathic Medicine. He is a graduate of LaSalle College and Bishop Neumann High School, both in Philadelphia. In addition to being a Board-Certified Orthopedic Surgeon, Dr. Valentino is also Board-Certified by the American Academy of Disability Evaluating Physicians, and Board-Certified by the American Board of Independent Medical Examiners. He is trained to perform Independent Medical Examinations and to provide Impairment Ratings related to on-the-job injury. He is licensed in Pennsylvania and New Jersey.

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On-line spine encyclopedia with home remedies, symptom charts and video animations at: LibertySpineCare.com



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ABOUT THIS EDUCATIONAL JOURNAL:

Recognizing that people will naturally self diagnose themselves, but often with the wrong information, Liberty Spine Care invests in an educational Internet site and distributes a free 36-page Home Remedy Book. Additionally this Back to Life Journal provides information that relates to back and neck pain and advances in spine care. Go to our educational internet site at LibertySpineCare.com for a free subscription.