HOW TO GET BACK TO SKIING OR SNOWBOARDING AFTER BACK PAIN

ERGONOMICS
HOW TO ADJUST YOUR DESK, CHAIR, LIFTING, TASKS... FOR A PAIN-FREE BACK OR NECK

MAINE WINTER SPORTS: GET BACK TO ACTIVITY THIS YEAR LEARN HOW INSIDE
For those who live in Maine, skiing and snowboarding can be a great way to enjoy the outdoors, stay in shape, burn calories and keep the weight off during a long winter. Getting back on the slopes is a great way to enjoy friends and family and make the most of the beautiful Maine outdoors.

Unfortunately, those people with occasional attacks of back and neck pain may find themselves housebound all winter long, afraid that winter sports may be too much for their bad back or neck strain. But there can be a way to get you snowbound with your friends so you aren’t housebound through yet another Maine winter.

Step one toward the snow: You need to determine what kind of back or neck problem you have, and where you are in your recovery. This will affect what kind of activity is best for you.

**Back strain vs. disc problem?**

Anyone who has random attacks of back or neck pain needs to visit with a spine specialist at some point to at least get their formal diagnosis so they understand what may be causing their pain symptoms because different problems respond to different treatments.

A person who has pain symptoms limited to the low back may simply have a muscle strain, ligament strain or soft tissue injury that can respond well to therapy and customized stretches that increase the flexibility of the back muscles, makes them stronger and more resistant to future strain. So for this person, rather than sitting on a couch through the winter months and becoming yet more de-conditioned, some winter activity can be just what the doctor ordered.

On the other hand, if your back problem causes pain, weakness or numbness down into a thigh, or if your neck problem causes pain, weakness or numbness into an arm or hand, those are serious symptoms that can imply a disc herniation, explains Dr. Michael Regan, spine surgeon at Maine Spinecare in Auburn, Maine.

“A person with the symptoms of a disc problem should come in and see one of the spine specialists to confirm if a disc is herniated, or see if there is a different cause of the symptoms,” says Dr. Regan. “The physician exam and diagnostic tests are completely painless. If a herniated disc is suspected, the spine physician will order an MRI which reveals if the disc wall has ruptured. A herniated disc doesn’t necessarily mean you need surgery, because many times pain-relieving injections can eliminate symptoms non-surgically. Also, knowing what is causing your back problem will help the physician recommend the kind of activity you should attempt to avoid further herniation and more emergent symptoms.”

“For example, we are cautious with a person with a disc problem. While getting outside can be good therapy, the person with a herniated disc should probably avoid aggressive downhill skiing or snowboarding where they could fall and damage the Wall Slide:

This is a pro skier favorite for strengthening key leg muscles. Position your back flat against a solid wall. Slowly slide your back down until your thighs are horizontal. Hold for 2 minutes.

**SNOWBOUND?**

Get ready with these exercises
EXERCISES FOR THE SLOPES

SLALOM JUMPS WITH A TOWEL
This is a great exercise to simulate skiing bumps and turning, as well as build stamina. Place a rolled up towel on the ground. With feet closely together, jump from one side to the other 10 times. Catch your breath, and repeat several times.

CHAIR KNEE BENDS
Both skiing and snowboarding requires your knees to balance your trunk, absorb the shock of bumps as well as turn the skis and snowboard. To prevent knee injury, you need strong knees that won’t fatigue in the afternoon. Using two sturdy chairs for support, slowly lower your body on one knee, then raise up. Repeat with other knee. If you are heavy, or if your knees are weak, use both legs rather than just one.

WINDMILL HOPS WITH A TOWEL
This is an advanced variation of the slalom jump and works the knees with moderate impact and rotates the upper body. It requires aerobic conditioning, agility and balance. To do this exercise, place a rolled towel on the ground. Start on your right foot with your left hand on the floor. Next, jump from this position, across the towel landing on your left foot and right hand. Do this back and forth for one minute. Rest, then repeat this momentum for ten one minute intervals.

disc further. A person with a herniated disc should limit themselves to less aggressive snow activity, like a light hike in snow or cross country skiing where there is less risk of falling. There are many people living healthy active lives with a herniated disc, because the symptoms are managed well.”

Nonsurgical treatment options for back pain include special stretches in the therapy gym or spinal injections. Above, Dr Matt McLaughlin, performs a pain-relieving spinal injection at Maine Spinecare. Left, a therapist helps a patient improve flexibility which will lessen pain symptoms.

SNOWBOARD RISKS
Snowboarding accounts for 26% of emergency room visits related to outdoor activities, second only to bicycling, according to the Centers for Disease Control. The highest injury prone groups are beginner snowboarders, including injuries on their very first day attempting the sport. The risk factors bottom out for experienced snowboarders, but then increases for very experienced snowboarders who increase speed and take more risks. Snowboarders are twice as likely to sustain a fracture to the wrist joint than skiers.

Back pain & Snowboarding
Dr. Michael Regan at Maine Spinecare helps patients get back to activity. Serious injuries where a traumatic fall could cause a broken leg, once the most common ski injury, have decreased 95 percent from 35 years ago because of the changes in skis and bindings that release the boot promptly in a fall, according to the International Society for Skiing Safety. The other way to prevent injury is to gear up your body for winter activity. If you are hoping to get snowbound this winter, the best way to prepare is to begin exercising at least four weeks before attempting to ski down a mountain.

**Downhill skiing & snowboarding**

Step 2 is to pick a winter activity. “Downhill skiing & snowboarding requires balance and the confidence of being able to lean forward down the hill and know that you have the ability to turn and stop,” adds Dr. Matt McLaughlin. “As with any sport, the beginner has a more difficult time and is more sore after skiing than an experienced skier,” says Dr. McLaughlin. “With sports, the better mechanical form and technique you have, the less strain on muscles, the more you ski in control and the less risk you have of falling. The person who has good form may ski all season long without falling.”

Dr. McLaughlin adds the nice aspect of downhill is that the person can manage their risk by selecting the trail by easiest green, intermediate blue, expert black or extreme double black diamond.

“With downhill skiing and snowboarding, risk of injury increases with speed — even with an experienced skier,” emphasizes Dr. McLaughlin. “So anyone with a back or neck problem should focus on enjoying the outdoors, the sunshine, and stick to the trails that are well within their ability level. If they do that, they can easily manage their risk. Most problems come from choosing a trail that is outside one’s ability. Also, when you buy your lift ticket, look for grooming reports or information that reveals which trails have moguls and which ones are nice and smooth.”

While downhill skiing and snowboarding seem similar, they have different injuries. Skiing injuries typically involve the LOWER body, in particular the knees which can twist when ski tips cross or snag causing a fall.

Snowboard injuries conversely involve UPPER body injury, typically broken hands, wrists and arms from trying to break the impact of a fall.

“The best advice for someone with back or neck problems is to do what you are most familiar with,” says Dr. Regan. “If you know how to ski, stick with that so you fall less. If you know how to snowboard, stick with that. Being a beginner at anything means you will tend to fall more.”

**Cross country skiing**

While many people think downhill when it comes to skiing and snowboarding, the two are very different. Cross country skiing can be even more fun because you don’t have to wait in a lift line, and falling presents less risk because you are going slower. The skis are different, because the heel has to lift off the ski as you propel yourself uphill and across the fall line.

“If you have a disc problem,” says Dr. Regan, “cross country is the safest way to get back on the mountain. You are going much slower and falling is not a major impact.”

**Lowering your risk**

For the person who has skied in the past, and would like to get back to it, a return to the slopes can be a manageable risk. Selecting the right trail by color and avoiding moguls will make for a great day outdoors.

If you are just getting back into the sport, buy a helmet. Twenty years ago helmets were a novelty. Now the vast majority of skiers and snowboarders wear a helmet to prevent head injuries from falls or losing control and hitting a tree or other skier.

Skis have also changed. They are shorter and lighter now with more sidecut to enable the skier to turn quicker with less effort. Broken legs, once the most common ski injury, have decreased 95 percent from 35 years ago because of the changes in skis and bindings that release the boot promptly in a fall, according to the International Society for Skiing Safety.

The other way to prevent injury is to gear up your body for winter activity. If you are hoping to get snowbound this winter, the best way to prepare is to begin exercising at least four weeks before attempting to ski down a mountain.

**Strengthening your back, hips and core muscles will help when skiing. The core muscles help stabilize the spine, so if your core muscles are very weak it contributes for a tougher time for your back during skiing.**

It is important to have your equipment customized to your body and skill level and to make sure your bindings are correctly adjusted. Before the first run, it is wise to walk around for 15 minutes which will gradually increase circulation to the muscles and ligaments in the back. As a free community service, Maine Spinecare mails out a 30-page Home Remedy Book to those in the New England region that contains symptom charts and pain-relieving stretches that can relieve many back and neck pain symptoms. You can request a copy at www.Mainespinecare.com or by calling 207-376-3340.

**HOME REMEDIES**

- **Limit lifting**
- **Lifiting**
- **Sports and activities can strain muscles, ligaments & tendons, causing painful spasms.**
- **Extreme pain** can require a spine specialist. Home remedies include anti-inflammatories like Advil/Nuprin, rest, icing and some simple stretching exercises. However, if symptoms don’t improve in 3 days, you need to be assessed by a spine specialist.
- **Back or neck pain that doesn’t radiate pain or numbness is a sign of serious injury.**
- **Home remedies include:**
  - Nonsteroidal anti-inflammatories like Advil, Nuprin, rest, icing and some simple stretching exercises.
  - Also remember those who self diagnose themselves and self treat themselves do so at their own risk. Back and neck pain can arise from a variety of causes and may require a spine specialist to perform diagnostic tests to identify your problem and the best treatment.
  - A spine specialist trained in this area can also create a home exercise program customized for you.
Having an armrest that is too high can cause pain and inflammation on the inner side of the elbow. Armrests that are too low can cause carpal tunnel syndrome in the wrist. If your chair is adjusted too low, can also cause carpal tunnel or rotator cuff strain to the shoulders. A back chair that is too erect, or without enough lumbar support for the low back can lead to back pain, neck pain or headaches.

White collar workers can have their own type of injury risk from spending long days sitting at a desk, especially when the chair is not fitted correctly to the person or the desk. Consider that the only furniture someone spends more time in than their office chair is their bed.

Usually, a person’s chair is provided by the company and if the company isn’t sensitive to ergonomics, that can spell problems. Thankfully, most desk chairs sold in the last five years have some ergonomic consideration in their design. But that still doesn’t mean the chair is adjusted to the person or the desk.

Employers, for example, typically buy a universal-type chair for everyone, so it’s up to the person to adjust the chair for their height and desk, explains Dr. Matt McLaughlin, a board-certified physical medicine and rehabilitation, pain management and Electrodiagnostic medicine spine specialist at Maine Spinecare in Auburn, Maine.

“There are guidelines developed by ergonomics experts that can lessen neck strain, back strain and the likelihood that you will develop carpal tunnel wrist problems from long periods at a keyboard,” says Dr. McLaughlin. “The key to preventing strain is adjusting your chair, because virtually every decent office chair has a height adjustment. So even if the employer invests in an expensive, well-designed ergonomic chair that doesn’t mean it’s adjusted for you. A person must raise the chair so the angles are right for their trunk height in relation to their desk.”

A lot of chairs are becoming popular around the workplace such as “Think” by Steelcase. These chairs specialize in providing a relaxed, pain-free experience and support proper posture to prevent any aches and pains associated with sitting in a chair for long hours. Other retailers like Relax the Back Stores specialize in chairs and furniture for those people with problematic back pain. These chairs and furniture have lumbar support that can be adjusted for a person’s particular back.

Even though someone may choose to purchase a complex and specialized ergonomic chair for their workplace, often they don’t know the proper way of adjusting the settings to fit their body correctly.

In a properly adjusted chair, the chair height should be adjusted so the computer monitor is just below eye level. The computer monitor should be about an arm’s length away from your eyes. If the screen is too far away, it can lead to eyestrain and headaches throughout the day. Then adjust the lighting on your computer monitor to help reduce glare and eyestrain.

If you are buying a new laptop, inquire about a matte screen vs. a glossy screen. A glossy screen can look more colorful and vibrant and be fine for a living room couch, but when taken into a business office with overhead fluorescent lights, the light strain is adjusting your chair, because virtually every decent office chair has a height adjustment. So even if the employer invests in an expensive, well-designed ergonomic chair that doesn’t mean it’s adjusted for you. A person must raise the chair so the angles are right for their trunk height in relation to their desk.”

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Dr. Matt McLaughlin, who specializes in nonsurgical spine care at Maine Spinecare, uses a spine model to explain spine anatomy to a patient. Patient education is crucial to compliance with the physician’s prescription for therapy and exercise.

The other little known fact about desk work, is that a person’s hamstrings and piriformis muscles will shorten over time because in a sitting position the knees can come apart which allows the piriformis muscle on the outer side of the upper thigh to be in a shortened position for extended lengths of time. The only way to reverse that is to lay in front of the TV in the evening, put your leg upward with a belt looped around your instep and stretch your hamstrings for 20 minutes at a time.
Have you ever heard of someone straining a thigh muscle while lifting? Probably not. That’s because the muscles in the legs are longer, stronger, in better shape and resistant to strain. The muscles and ligaments in the back are shorter, prone to muscle spasm when lifting a heavy object. The most common causes of back strain is from improper body mechanics during lifting, or lifting something that is too heavy. So if an object is too heavy, use a hand truck to lever it up and transport it. Or use a cart or wagon to move it. Always push rather than pull.

**BODY MECHANICS 2012: How to lift without hurting your back**

Start with one knee on the ground and arms fully extended. With the power of your legs (not your back), move to a standing position.

**MID-THIGH METHOD**

Position the object between your legs, and keep your arms extended. Keep your back straight as you use the power of your legs (not your arms or back) to lift the object off the ground. As you stand, straighten your back with the object resting on your thighs.

**SQUAT METHOD**

Position the object between your legs, and keep your arms extended. Keep your back straight as you use the power of your legs (not your arms or back) to lift the object off the ground. As you stand, straighten your back with the object resting on your thighs.

Avoid sleeping on your stomach because this arches your back and puts pressure on the spine. Rather lie on your back and tuck a small pillow underneath your knees. This position allows the spine to unload. If sleeping on your back is not comfortable, try sleeping on your side with a pillow placed in between your knees. Sleeping on your stomach doesn’t have to be avoided as long as you place a soft, flat pillow underneath your stomach to eliminate some of the arch that can place stress on your back. It’s also important to sleep on a mattress with optimal back support. A good mattress should compliment your body shape. However, when in doubt go with what feels most comfortable to you.
frequently asked questions...

Q I was shoveling snow outside for hours, and now I seem to have a persistent back problem. Where did I 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 in Maine, each shovel full of snow can be 30 lbs. This is a Maine prescription for back pain.

Back and neck pain can then cause many fears and doubts to race through your mind. The fear of the unknown can stop you from doing anything physical for fear of hurting yourself. So, you do less and less. This lack of activity then causes muscles and tendons in your back to become weaker and less flexible, so they are susceptible to strain from even simple things, like bending over to pick up your child. 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 nice back strain. This can feel like occasional spasms that lock up your back with excruciating back pain.

The good news is that back strain doesn’t require surgery, and will typically respond to some anti-inflammatory drugs like Advil or Nuprin. 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 www.MaineSpinecare.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 that as well.

— Matt McLaughlin, MD
Physical Medicine

Q I fell on my back while I was skiing and now my back hurts! What could be causing that, and what symptoms need to be seen by a doctor? Is extreme pain an indicator of when I should see a doctor?

A Unlike other orthopedic injuries where a fracture will be excruciating, 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-inflammatory drugs, ice, a day or two of rest, then a walk, maybe some therapy, you can be back to normal. But, any time you have pain that does not go away on its own over three or four days, then it’s time to see a doctor.

With that said, because you mentioned that you fell which then caused the pain, symptom, that in and of itself is a red flag signal for a physician because you could have fractured a spinal vertebra, which can be very serious. If you notice that you are unable to walk without raising your toe, even though there is no pain involved, that is also an emergency red flag symptom that a disc may have herniated, is pressing on a nerve root off your spinal cord, and with every passing day you risk permanent paralysis in that foot.

The general rule of thumb is that if you have pain localized in the back or neck area, it may be a soft tissue/muscle strain issue which can be resolved with non-surgery—spine-specialized therapy. If the pain, or numbness, or weakness, radiates into an arm and hand, or leg and foot, that is a serious symptom that needs to be seen within a week to prevent permanent problems.

The snowmobile shouldn’t be too problematic. But if you have a herniated disc, or a spinal fracture with instability, the jackhammer effect of the snowmobile could cause problems — especially if you fall off of it. The best advice is to be prudent with your outdoor activity, and avoid trail-blazing and risky areas that could cause a spill.

— Matt McLaughlin, MD
Physical Medicine

Q I’m getting ready for a winter camping trip, the first one in several years. I have had occasional bouts of back pain in the past and I’ll be spending a fair amount of time on a snowmobile. Is this something you would not recommend?

A We like patients to stay active. Life isn’t a dress rehearsal for something else. And getting outdoors in the winter to hike is a great way to stay in shape. But then again, the impact of a snowmobile going over rough terrain can also spell problems...

CAN YOU GET A BAD BACK FROM SHOVELING SNOW?

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— Matt McLaughlin, MD
Physical Medicine

Q Is visiting a spine surgeon a dress rehearsal for some-thing else. And getting outdoors in the winter to hike is a great way to stay in shape. But then again, the impact of a snowmobile going over rough terrain can also spell problems...

frequently asked questions...
During a long Maine winter, are there any good exercises specifically geared to prevent back pain?

Absolutely. For starters, walking or hiking without a backpack is a low risk way to ward off back pain. Skiing and other winter sports are also great because they keep you moving which helps to keep the weight off. A fat belly pulls the spine out of alignment. Indoors, a treadmill can help burn calories. We have an entire exercise program for neck and back pain on our web site at www.Mainespinecare.com. These include a variety of stretches to prevent back strain: extension exercises, flexion exercises and rotational exercises. You can do these all evening long on the floor in front of the TV. They’ll make your back stronger, more flexible and resistant to back strain.

—  Matt McLaughlin, MD  
Pain Management

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?

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 very 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 Maine Spinecare, for symptoms like you describe, we might recommend non-surgical treatment options to get you over symptomatic periods. And if surgery is required, the herniation can often be treated with a minimally invasive spine surgery and you are home the same day.

—  Michael Regan, MD  
Spine surgeon

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?

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. At Maine Spinecare the therapists have extensive experience helping patients with back and neck strain get over symptoms, but also prevent recurrence.

—  Matt McLaughlin, MD  
Physical Medicine
FELLOWSHIP-TRAINED SPINE SURGEON

Michael Regan, M.D.
Board-Certified Orthopaedic Surgeon
Fellowship-Trained in Spine

Dr. Regan is a board certified orthopaedic surgeon, fellowship-trained in spine surgery. He has had an active practice in central Maine for 15 years. He specializes in the care of back and neck problems including lumbar and cervical herniated discs, spinal stenosis, spondylolisthesis and spinal fractures. He completed his orthopaedic training as well as his spinal fellowship at the University of Pittsburgh Medical Center. Dr. Michael Regan is a member of the American Academy of Orthopaedic Surgeons, the American Medical Association, and the Cumberland County Medical Association. He is certified by The American Board of Orthopaedic Surgery.

NON-SURGICAL SPINE CARE

Matt McLaughlin, M.D.
Board-Certified Physical Medicine and Rehabilitation
Board-Certified in Pain Management
Board-Certified Electrodiagnostic Medicine

As a physiatrist, Dr. McLaughlin specializes in the non-surgical management of spinal disorders and pain. He is board-certified in physical medicine and rehabilitation, pain management and Electrodiagnostic medicine. “Physiatrists try to see the big picture and use a variety of treatments to restore function. It’s a holistic, multidimensional approach to care. Almost everyone gets neck or back pain some time in their lives. Today there’s a lot we can do to lessen the discomfort and quickly get patients back to their normal routine. Some patients still require surgery, but with effective, conservative treatment most patients can avoid surgery.”

Need more information? Visit our online spine encyclopedia at www.MaineSpinecare.com, where you can request our 36-page Home Remedy Book for back and neck pain.