Dr. Debra Yerman, D.C.

HEALING YOUR NECK AND BACK PAIN

A COMMON SENSE GUIDE FOR LONG LASTING RELIEF

YERMAN chiropractic

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Short Term Care for Your Back & Neck Pain…

CreateSpace Publishing, Inc.

Printed in the United States of America

First Printing: March 2016

This book has been carefully prepared to educate those who have suffered back and neck pain and even headaches involving the spine. The information presented is for general health education only. Individual health concerns should be addressed with a knowledgeable and licensed health care provider.

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Introduction

Back and Neck Pain Can Be "Just Awful."

Nothing is worse than being in constant pain whether it be a dull constant aching or sharp pain that comes and goes. Maybe it goes "out" every time you exercise or play golf. Or you wake up in pain or maybe it gets worse at the end of the day. Maybe sitting helps or sitting makes it worse. A sneeze can make you scream. Walking is painful or walking helps. All these symptoms have different meanings. The uncertainty that your low back might "go out" is frustrating to say the least. The good news is there is some wonderful treatments for neck and back pain that often get great results.

And because no one treatment works for everyone –

…the key is to find which treatment is right for your individual case.

Understanding why your back hurts can help you make good decisions, which in turn can help get you back to the Fun Things you enjoy in life.

Knowing what **TO DO** and what **NOT TO DO** can make all the difference to feeling better sooner. And the answers are not always what you might think.

Back pain can strike at any age and it is a very real problem.

If you have been suffering with neck or back pain or even both you are probably confused about what to do next. You might be asking yourself questions like…

- What is causing my back pain?
- Why does my neck always hurt?
- What exercises can alleviate pain and what exercises can hurt me?
- Ice vs heat?
- Does posture cause my pain or does my pain cause bad posture?
- What pillow should I use?
- Is my computerr and cell phone really hurting my spine?
- Do I need an MRI?
- Will I need surgery?

Regardless of the severity or duration of your pain, there are inevitably lots of questions.

Fortunately, you've come to the right place. If you or someone you care about has back pain that won't go away and concerns that have not been addressed, this book is for you.

Back Pain is a "very real" problem affecting almost 80% of you at some point in our lives and costs our communities billions in health care, disability and loss of work dollars.

Maybe your doctor told you "take this and give it a couple of weeks"… "you'll be fine"…or maybe you even got "the look."

Well it's not fine. You are not fine. You hurt. And you want to feel better and go about your life.

Unfortunately, we live in a society where much of our healing is built around the principle that we can take "two of something" and then just wait until we feel better.

But, here's the thing. You can't wait until you feel better. If you're like most back pain sufferers, you can barely sit at the computer without your back aching, or walk the dog without feeling the pain of a tugging leash, or enjoy a comfortable night of sleep. Showering? Dishes? Getting out of the car? It's all a major production. Even putting on your socks has become a "circus act." This can affect our quality of life and it is exhausting.

Bottom line, you've had enough.

You're in pain, and you want relief as fast as possible.

It's quite surprising when you look at back pain research and how it impacts the entire body. You probably didn't think that headaches, carpal tunnel syndrome, fibromyalgia or even whiplash injury are part of that pain, but they are…

Part of this relief begins with self-knowledge and awareness. I believe it is essential for each of us to become *students of our own bodies*, and then take the individual steps to restore our health.

My name is Debra Yerman, D.C., and I've been helping people with Back and Neck Pain, as well as other conditions like Headaches get fast and effective relief from pain, the stresses of daily living, and injuries for over 35 years.

This book is a collection of the most useful back and neck articles I have published in my popular "In Good Hands" newsletter over the last few years. It is meant to educate, inspire and empower you to put your health back in your hands.

I hope the information in this collection of articles is helpful to you.

If you have any questions or would like to find out more, *my staff and I would love the opportunity to work with you.* I have treated thousands of patients young and old, with back and neck injuries, and I believe the systematic approach we use in my office to be second to none. Our mission is to help patients Feel Better Faster. We judge success by how quickly you are able to return to your normal activities.

Making your first appointment is easy. Just email or call my office, and our friendly staff will schedule an evaluation to see if we can help you. We'll do everything possible to get you in the same day, even if we have to stay late or work through lunch.

Call 818-995-4300

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We look forward to helping you feel better faster.

Dr. Debra Yerman, D.C.

My Pledge To You:

"To the best of my ability, I agree to provide my patients convenient, affordable and mainstream Chiropractic care. I will not use unnecessary long-term treatment plans or therapies." Dr. Debra Yerman, D.C.

The 12 Causes of Low Back Pain

It's been said that if you haven't had back pain, just wait, because (statistically) someday you will! The following list is a list of "causes" that can be easily " fixed" to reduce your risk for a back pain episode.

MATTRESS: Which type of mattress is best? The "short answer": there is no single mattress (style or type) for all people, primarily due to body type, size, gender, and what "feels good." In general, you want a firm mattress with a little bit of "give'. Not too much pillow top. TRY laying on a variety of mattresses (for several minutes on your back and sides) and check out the difference between coiled, inner springs, foam (of different densities), air, waterbeds, etc. The thickness of a mattress can vary from 7 to 18 inches deep. Avoid mattresses that feel like you're sleeping in a hammock! A "good" mattress should maintain your natural spinal curves when lying on your sides or back (avoid stomach sleeping in most cases).

If your budget is tight, you can "cheat" by placing a piece of plywood between the mattress and box spring as a short-term fix. If you are going to buy a new mattress make sure they have at least a 90 day guarantee so if you do not like it you can exchange for a different one at no cost.

SHOES: Look at the bottom of your favorite pair of shoes and check out the "wear pattern." If you have worn out soles or heels, you are way overdue for a new pair or a "re-sole" by your local shoe cobbler! If you work on your feet, then it's even more important for both managing and preventing low back pain!

DIET: A poor diet leads to obesity, which is a major cause of low back pain. In general STAY AWAY from fast foods! Identify the two or three "food abuses" you have embraced and eliminate them – things with empty calories like soda, ice cream, chips... you get the picture! Consider the Paleo or Mediterranean Diet.

Many of my patients have had great results with the Whole 30 (www.whole30.com), "It starts with food", book on Amazon. Good choices with food can really make a difference to how you feel. Some benefits are… better digestion, decreased inflammation (less pain) and increased energy. How yummy would it be to have an abundance of energy, less pain and an increase quality of life! And of course drink a lot of water!

EXERCISE: The most effective self-help approach to Neck and Low Back Pain management is exercise. Studies show those who exercise regularly hurt less, see doctors less, have a higher quality of life, and just feel better! This dovetails with diet in keeping your weight in check as well. Think of hamstring stretches and core strengthening as important Low

Back Pain managers – USE PROPER TECHNIQUE AND FORM; YOUR DOCTOR OF CHIROPRACTIC CAN GUIDE YOU IN THIS PROCESS! Walking 10-20 minutes a day is a good start.

Exercises to Avoid if you are having low back pain: “Double leg raises”, “Sit-ups” or “Flexing forward while lifting weights.”

POSTURE: Another important “self-help” trick of the trade is to avoid sitting slumped over with an extreme forward head carriage positions. Remember that every inch your head pokes forwards places an additional ten pounds of load on your upper back muscles to keep your head upright, and sitting slumped increases the load on your entire back! With the increased usage of cell phones, tablets and computers please do not miss the chapter on Text-Neck. We give you the 1, 2, 3’s of good posture.

OFFICE CHAIR: Because of vast differences between people’s height, weight, body type, and preference, it’s difficult — if not impossible — to find a one-size-fits-all solution when it comes to office chairs! In the ideal world, the option to sit, stand, walk, and stretch as needed would be perfect but this simply is not reality! Low back pain (LBP) from sitting is common due to the excess pressure it places on the joints and disks (the “shock-absorbers” of the spine). Here are some remedies:

1) Find a chair that FITS YOU.

2) Get up and move at least once every hour (set the timer on your Smart-phone as a reminder).

3) Place the computer monitor directly in front of you, so you are looking straight ahead (not down) and keyboard/mouse so the elbows bend only 90°.

4) Keep your feet on the floor at your desk (use an upside down box if you have short legs).

5) Perform “in the chair” stretches when your timer goes off! (See section on Sitting at desk)

BODY TYPE: We’ve discussed obesity as an obvious cause of back pain, but other factors are important as well. A very common cause of back pain for women is breast size. Here, the topic of a supportive bra is important, as carrying more weight in front of you adds additional stress on the back and shoulders. It is important to strengthen the “Rhomboid muscles”. Large breast size can affect the muscles in the upper and lower back and can cause misalignment of vertebra causing structural imbalance. It is important to be evaluated treated by a Chiropractor or a history of chronic low back/upper back pain might ensure.

SHOULDER BAGS: Back and Neck pain can be caused and/or perpetuated by a heavy purse, bag, briefcase, and even a thick wallet in the back pocket! So before leaving the house today, CLEAN OUT that bag and/or put your wallet in a front pocket and lessen the load on your spine! Believe me, I'm not trying to set women's fashion back to the dark ages, but that large purse your carrying (or lugging) could be a literal stone around your neck. Besides causing upper back and neck pain it can even be a contributory cause for your headaches. Think about it, if we carry something heavy on ONE shoulder, for hours a day, day in and day out, it eventually has to affect us in a negative way.

It is called "Micro-trauma," which is simply an injury to the muscle fibers caused by repetitive overuse. Put another way: small irritations day in and day out can affect our body in the same way a big trauma can.

I recently ran a study in my office. I weighed every purse that came into our office for a month. The average was 10 pounds. Some purses hit 16 pounds. That's like carrying four bags of sugar (and just as lethal I might add). Or imagine carrying around a large watermelon all day, then having to balance it on one shoulder!

This "micro-trauma" and can cause your body to develop imbalances, which then leads to pain.

Of course, I'm not suggesting that we all throw away our purses for fanny packs (although a chiropractor can dream). I am saying we need to be as creative with our purses as we are with our health.

He are some proactive steps to take:

- Make sure your purse is as light as possible.
- Use a smaller wallet, carry less change, and leave make-up in the car.
- Use a messenger style bag you can wear across your body with wide and or padded straps.
- Switch shoulders often during the day.
- Hold your purse under your "armpit" and do not use the straps.
- Okay, I'm just going to say it—try a fanny pack.

SMOKING: Smoking can reduce the amount of oxygen that reaches your cells, which can cause them to function at a less than optimal state. You've perhaps heard that a conscientious back surgeon will NEVER operate on a smokers' back due to both the prolonged healing time and

subsequent bad outcomes. So in addition to giving your heart, lungs, and those around you a break, if you want your lower back to heal, STOP SMOKING! Studies also show smokers are TWICE as likely to develop LBP compared with non-smokers, so quit. I have a book recommendation that has helped many of my patients and friends stop smoking, it is called: Allen Carr's Easy Way to Stop Smoking. Even if you feel you are a lost cause, please give this a try - you and your family might be pleasantly surprised.

STRESS & DEPRESSION: Remember, "Health" is a balance between structure, chemistry, and mental factors. Stress increases muscle tightness and alters posture in a way that can lead to or exacerbate existing Low Back Pain. Exercise, meditate, eat smart, and resolve your differences with family members and friends to minimize this problem! When needed, your doctor of chiropractic can refer you for counseling!

ERGONOMICS: How we "fit" into our job, lifting properly, set up of workstation, work pace, and work stresses ALL play into Neck and Low Back Pain management. Have an assessment to see what can be fixed! And remember when lifting – Keep the object as close to your belly button as possible, back as straight as possible and use your legs to lift. The most dangerous is to lift heavy objects while you are bending and twisting.

HOME CARE: At some point you might have already experienced how painful it can be to do everyday things such as brushing your teeth, washing dishes, taking out the trash or sometimes even getting dressed. Depending on your condition it might help to start tucking your pelvis and tightening your core muscles before and during your everyday chores. Many patients find putting one foot up on a small ledge/stool can be helpful, as this changes the angle of your low back.

Is Sitting BAD for My Back?

A major manufacturer of workstations reports that 86% of work computer users have to sit all day, and when they do rise from sitting, more than half (56%) use food as the excuse to get up and move. In addition to sitting at work, for meals, and commuting to/from work, 36% sit another one to two hours watching TV, 10% sit one to two hours for gaming, 25% sit one to two hours for reading/lounging, and 29% use their home computer for one to two hours. In summary, the average American sits for thirteen hours a day and sleep for eight hours. That's a total of 21 hours a day off their feet!

The manufacturer's survey also notes 93% of work computer users don't know what "Sitting Disease" is but 74% believe that sitting too much can lead to an early death. "Sitting Disease" represents the ill-effects of an overly sedentary lifestyle and includes conditions like "metabolic syndrome" (obesity and diabetes), which is rapidly becoming more prevalent, especially in the young – even in adolescence and teenagers! Recently, the American Medical Association (AMA) adopted a policy encouraging employers, employees, and others to sit less citing the many risks associated with sitting including (but not limited to): diabetes, cancer, obesity, and cardiovascular disease. Standing is SO MUCH BETTER as it burns more calories than sitting, tones muscles, improves posture, increases blood flow, reduces blood sugar, and improves metabolism. Standing is frequently overlooked as "an exercise" and it's both simple and easy to do!

So, what about the low back and sitting? You guessed it – sitting is hard on the back! The pressure inside of our disks, those "shock absorbers" that lie between each vertebra in our spine (22 disks in total) is higher when we sit compared with simply standing or lying down. It's estimated that when we lay down, the pressure on our disks is the lowest at 25mm. When lying on one side, it increases to 75mm, standing increases disk pressure to 100mm, and bending over from standing pushes disk pressure to 220mm. When we sit with good posture, our disk pressure may reach 140mm but that can increase to 190mm with poor posture. To help relieve the pressure on our disks, experts recommend:

1) Getting up periodically and standing;

2) Sitting back in your chair and avoiding slouched positions;

3) Placing a lumbar roll (about the size of your forearm) behind the low back and chair/car seat; and

4) Changing your position frequently when sitting.

Because certain low back conditions “favor” one position over another, these “rules” may need modification. For example, most herniated disk patients prefer low back extension while bending over or slouching hurts. In those with lumbar sprain/strains, bending forwards usually feels good and extension hurts. Modifying your position to the one that is most comfortable is perhaps the best advice.

How to Sit at Your Desk: Do's and Don't

Sitting at the computer is creating a lot of postural disturbances in our spines. Many of us are sitting six to eight to ten hours a day (or more) at a computer, which can dramatically contribute to even more neck and back pain-related issues. Again, there is hope if we quickly take corrective steps to consciously improve how we work.

Here's what you can do to keep your back healthy while at the computer:

For full back support, scoot your hips and back against the chair back.

Check the depth of the chair and make sure it is a correct fit. Shorter people might have to look for a chair with less depth on the seat. Keep your feet in contact with the floor, or on a stool. Never let your feet dangle. The McKenzie Company has a good slim-line lumbar-support cushion, which attaches to most chairs, and can be helpful. Available on Amazon.

Move your chair as close to the desk as possible. This will stop you from leaning forward.

Do not lean forward. (Very important)

Adjust the armrests to the point of where your arms are suddenly lifted at the shoulders. Doing so will allow the armrests to support just the elbow and take the weight off the shoulders. Note: It's good to have a chair that has armrests that move inward so you can be closer to the desk or table.

Keep your head up, and place monitor in front of you, not to the side. Unfortunately with laptops this is more difficult.

Instead of sitting all day consider alternating standing and sitting at work. Also, get up frequently to stretch, breathe and relax.

Using neck exercises will offer additional support. I have added some neck exercises in a later chapter. You can also check out a neck exercise video at… www.yermanchiropractic.com.

Does Stress Affect My Pain?

In a study that looked at stress and how people who seek chiropractic care perceive it, researchers wrote that psychosocial stress, "… pervades modern life and is known to have an impact on health. Pain, especially chronic back pain, is influenced by stress." Here, ten different chiropractic clinics reported results tallied from 138 patients who were given questionnaires about stress and its association with their current condition.

Of interest, more than 30% categorized themselves as being "moderately to severely stressed," and over 50% felt that stress had a moderate or greater effect on their presenting complaint. Further, about 71% of the patients felt that a stress management approach would be useful to help them cope and 44% were interested in taking a "self-development program to enhance their stress management skills."

The study concluded that:

1) patient perceptions are known to be important in management approaches and treatment outcomes;

2) in this study, about 1/3 of patients presenting perceived themselves as being moderately or severely stressed; and

3) interventions that reduce stress or the patient's perception of being stressed may be an important and valid "intervention" in patient management.

So, how do doctors of chiropractic do this? First is pain management, which is often at the core of a current heightened stress level, as it can push the stress level "over the edge." But just managing pain doesn't always work by itself, and doctors of chiropractic will often intervene with nutritional recommendations such as educating the patient about an "anti-inflammatory diet," and the use of vitamin and/or herbal approaches specific to stress management, including specific nutritional approaches to balancing neurotransmitter levels. Other approaches may include the use of various calming techniques that can be employed at times when patients are "stressed" and can be used during the day during these "stressful moments."

There are even "calming apps" to help de-stress and clear the mind available for your smart-phone! Just as there are apps to measure your steps, calories, or METS burned during the day, these apps are specific for calming and reducing stress! Here are the names of a few that are FREE for you to investigate and consider (Web, Android, or iOS):

MindMeister, Breath2Relax, White Noise Lite, Calm, Diaro, Headspace, Relax, Guided Meditations, and more. Give one of these a try as it is clear we all focus far too little on stress management!

What's that Tingling in My Leg?

When you think of low back pain, you may visualize a person half-bent over with their hand on the sore spot of their back. Since many of us have experienced low back pain during our lifetime, we can usually relate to a personal experience and recall how limited we were during the acute phase of our last LBP episode. However, when the symptoms associated with LBP are different, such as tingling or a shooting pain down one leg, it can be both confusing and worrisome – hence the content of this month's article!

Let's look at the anatomy of the low back to better understand where these symptoms originate. In the front of the spine (or the part more inside of the body), we have the big vertebral bodies and shock absorbing disks that support about 80% of our weight. At the back of each vertebra you'll find the spinous and transverse processes that connect to the muscles and ligaments in the back to the spine. Between the vertebral body and these processes are the tiny boney pieces called the pedicles. The length of the pedicle partially determines the size of the holes where the nerves exit the spine.

When the pedicles are short (commonly a genetic cause), the exiting nerves can be compressed due to the narrowed opening. This is called foramina spinal stenosis. This compression usually occurs later in life when osteoarthritis and/or degenerative disk disease further crowds these "foramen" where the nerves exit the spine. Similarly, short pedicles can narrow the "central canal" where the spinal cord travels up and down the spine from the brain. Later in life, the combined effects of the narrow canal plus disk bulging, osteoarthritic spurs, and/or thickening or calcification of ligaments can add up to "central spinal stenosis." The symptoms associated with spinal stenosis (whether it's foramina or central) include difficulty walking due to a gradual increase in tingling, heavy, crampy, achy and/or sore feeling in one or both legs. The tingling in the legs associated with spinal stenosis is called "neurogenic claudication" and must be differentiated from "vascular claudication", which feels similar but is caused from lack of blood flow to the leg(s) as opposed to nerve flow.

At a younger age, tingling in the legs can be caused by either a bulging or herniated lumbar disk or it can be referred pain from a joint – usually a facet or sacroiliac joint. The main difference in symptoms between nerves vs. joint leg tingling symptoms is that nerve pinching from a deranged disk is located in a specific area in the leg such as the inside or outside of the foot. In other words, the tingling can be traced fairly specifically in the leg. Tingling from a joint is often described as a deep, "inside the leg,"

generalized achy-tingling that can affect the whole leg and/or foot or it may stop at the knee, but it's more difficult to describe by the patient, as it's less geographic or specific in its location. Chiropractic management of all these conditions offers a non-invasive, effective form of non-surgical, non-drug care and is the recommended in LBP guidelines as an option when treating these conditions.

Low Back and Leg Pain – Is it Sciatica?

Low back pain (LBP) can be localized and contained to only the low back area or, it can radiate pain down the leg. This distinction is important as the former, LBP only, is often less complicated and carries a more favorable prognosis for complete recovery. In fact, a large part of our history and examination is focused at this differentiation. This month's Health Update is going to look at the different types of leg pain that can occur with different LBP conditions.

We've all heard of the word "sciatica" and it (usually) is loosely used to describe everything from LBP arising from the joints in the back, the sacroiliac joint, from the muscles of the low back as well as a pinched nerve from a ruptured disk. Strictly speaking, the term "sciatica" should ONLY be used when the sciatic nerve is pinched. The sciatic nerve is made up of five smaller nerves (L4, 5, S1, 2, 3) that arise from the spine and join together to form one large nerve (about the size of our pinky) called the sciatic nerve – like five small rivers merging into one BIG river.

Sciatica occurs when any one of the small nerves (L4-S3) or, when the sciatic nerve itself, gets compressed or irritated. This can be, and often is caused from a lumbar disk herniation (the "ruptured disk"), a mis-positioned vertebra (such as a forward slip of the vertebra called "spondylolisthesis"), pressure from an arthritic spur off the spine where the nerve exits ("spinal stenosis"), or, from a tumor near or around the nerve.

A term called "pseudo sciatica" (a non-disk cause) includes a pinch from the piriformis muscle where the nerve passes through the pelvis (in the "cheek" or, the buttocks), which has been commonly referred to as "wallet sciatica" as sitting on the wallet in the back pocket is often the cause. When this occurs, the term "peripheral neuropathy" is the most accurate term to use. Other "pseudo sciatic" causes include referred pain from the facet joints which is described by the patient as a "deep ache" inside the leg, or from a metabolic condition where the nerve is affected such as diabetes and other conditions. Here again, the term, "neuropathy" is the better label when diabetes, hypothyroid, lead poisoning, alcohol toxicity and/or others is the culprit. Direct trauma like a bruise to the buttocks from falling or hitting the nerve during an injection into the buttocks can also trigger "sciatica."

The symptoms of sciatica include low back pain, buttocks pain, back of the thigh, calf and/or foot pain and/or numbness-tingling. If the nerve is

compressed hard enough, muscle weakness can occur making it hard to stand up on the tip toes creating a limp when walking. In the clinic, we will raise the straight leg and if pinched, sharp pain can occur with as little as 20-30° due to the nerve being stretched as the leg is raised. If pain occurs anywhere between 30 and 70° of elevation of either the same side leg and/or the opposite leg, this constitutes a positive test for sciatica (better termed, “nerve root tension”).

When a disk is herniated into the nerve, bending the spine backwards can move the disk away and off the nerve resulting in relief, which is very diagnostic of a herniated disk. Having a patient walk on their toes and then heels and watching for foot drop as well as testing the reflexes, the sensation with a sharp object, and testing the reflexes at the knee and Achilles tendon can give us clues if there is nerve damage. The GOOD NEWS is that chiropractic methods can resolve this problem FREQUENTLY, thus avoiding unnecessary surgery! So, check with us FIRST, before electing for surgery!!!

What NOT TO DO…Until you are evaluated by a Chiropractor and the cause of your leg pain is known, use ice on your low back (even if it does not hurt) for 20 minutes at a time. Do not raise both legs at the same time. And Do not stretch the affected leg straight.

Sciatic Flossing

What You Need To Know

Sciatica Flossing can help to stretch and release the sciatic nerve when it becomes compressed or entrapped. Nerve flossing exercises are extremely easy to do; it is like a “massage” for the nerve when muscles and/or bones compress it. The purpose is to pull one end of a nerve while keeping the other end of the nerve relaxed. It is helpful along with chiropractic care.

Sit on table so your legs can swing freely. (Do not do on bed)

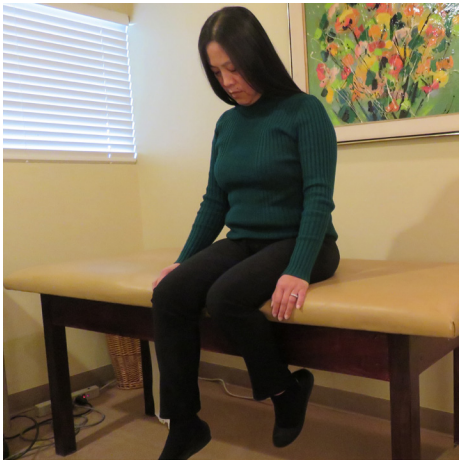
Extend your head backward while at the same time extending (straighten) your leg on the side of pain. Bend head forward while bending leg at knee to reach slightly under table.

Continue this movement, as head goes back – leg straightens, as head goes forward – leg bends.. Start with 5 times slowly. If it increases the pain stop, and repeat later in the day.

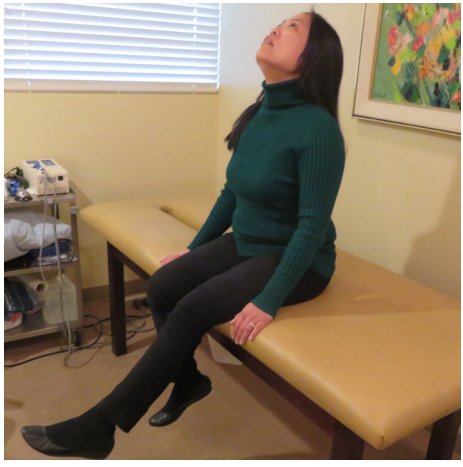
Do this 5-10 repetitions 2-3 times a day. Make sure you do this first thing in the morning and before you go to bed.

Repeat and increase the range of motion as tolerated.

Take B1 and B6 vitamins in combination to help take out the inflammation



Floss Forward



Floss Back

Ice vs Heat?

Typically, most people are confused about which is better, ice or heat? This decision can be significantly helpful or hurtful, depending on the case.

If in doubt, **ALWAYS START WITH ICE**.

Generally, “ice is nice,” as it vasoconstricts and pushes out the inflammation or swelling, which usually feel relieving and helpful even though the initial “shock” of ice may not be too appealing to most of us! This is probably why MOST people choose heat as their initial course of self-care.

This is usually wrong because heat vasodilates, which draws blood into the injured area that is already inflamed and swollen, thus adding more fluid to the injured area – sort of like throwing gas on a fire! Heat may feel good initially, but often soon after, increases pain intensity and frequency may occur.

The four sensations when ice is applied:

Initially the ice will feel cold, then you will feel burning, followed by aching (which lasts only about a minute) and finally numbness (where you can’t feel the ice anymore.)

When Neck or Low Back Pain is chronic or NOT new and acute, moist-heat can be helpful, as it relaxes muscles and improves movement by reducing stiffness (never use heat more than 20 minutes per hour.)

The biggest mistake about heat is leaving it on too long – some people even burn themselves with a heating pad. Do not leave heat on for hours or overnight.

If you are going to use heat do not use dry-heat; use “Moist-heat” (Microwave a wet towel and put between two dry towels.)

ICE APPLICATION: “If In Doubt Ice It Out.”

When applying ICE use only a Kleenex between your skin and the ice pack.

If pain is acute ICE the area for 20 minutes on and 20 minutes off for the first 1 1⁄2 hours.

If pain is not acute you can use ICE for 20 minutes with one hour in-between.

It is ok to take a hot shower or Jacuzzi as long as you ice after for 20 minutes.

For certain conditions we recommend “CONTRAST THERAPY” where you start and end with ice and use moist-heat in between as follows: Ice 10 min. / Heat 5 min/ Ice 10 min. / Heat 5 min. (Total time: 40 minutes.) This approach creates a stronger pump-like or “push-pull” action that pushes out the fluids/inflammation (with ice) followed by pulling in fluids (with heat).

If you ever feel worse after icing, PLEASE STOP AND CONTACT your health professional, as you may have a unique situation.

How Active Should I Be?

How active should I be? Most people usually try to do too much even after they feel “warning signs”. It’s human nature to want to “...get things done,” so sometimes we push ourselves beyond the limits of our tissue’s capacity, resulting in injury. Once we’ve hurt our back, we still try to stay with our daily routine, ignoring our LBP the best we can.

Generally, it’s BETTER to be a little active than it is to be too sedentary, but there is also a limit, as too much activity is like “....picking at a cut,” only prolonging healing and recovery.

If every time you bend over results in a sharp, dagger-like pain in your low back, PLEASE STOP and assess the situation!

Position preference is the KEY to determining what type of stretches or other exercises may be best for you.

So, if bending over REDUCES LBP, pull your knees to your chest (we’ll show you how). If bending backwards feels better, we’ll show you several extension exercises that can be done multiple times a day. Remember, too much sitting or lying down will weaken your low back muscles. Emphasize positions that feel good and avoid sharp, lancinating pain!

It is also important to listen to what your body is telling you. Often we get angry with our bodies for having pain. But remember “PAIN” is telling us something is wrong and when to stop (so we don’t cause more damage to those tissues.) It is part of an amazing communication system we should not ignore.

Pain is giving us important information, and is a natural function of our body. Another natural function of our body is healing. We see this when we have a simple paper cut. Our body goes through several healing stages; it scabs up, and eventually goes away. Your spine and nervous system have the same capacity.

However imagine if every time you saw your paper cut start to heal, you picked at it and opened up the wound again? Obviously, it would never heal. The body’s natural systems wouldn’t have a chance to work.

The same with your back pain and healing IT.

You need to allow your back to heal by First Stop Re-Injuring Yourself and prolonging the healing process. Please LISTEN TO WHAT YOUR BODY IS SAYING. If it hurts when you bend forward, stop.

Second, have a Chiropractor/specialist evaluate your case and give you the proper home care recommendations. You might be “blown away” at how your body may start to heal itself as a result of some TLC.

Doctor Makes Refreshing Pledge

What Every Back pain and Herniated Disc Sufferer Should Know About Treatment Options and Choosing A Doctor That Is Right For You

If you suffer with back pain, you probably already been to many doctors and tried several treatments...without great results.

Or maybe your back pain is new and you don't know who to listen to. There are so many different treatments and "opinions," it can be extremely frustrating. Even worse, if you have been told you have a herniated disc – the pain can be excruciating and the thought of facing back surgery can be terrifying.

What Are The Best Options? Thankfully, research has been done that helps solve some this puzzle – and give you some of the answers you are looking for. And now research has shown one treatment to be both safe and effective for many cases of low back pain in patients with lumbar herniated discs.

But before we talk about this treatment – please understand this...

What you are about to discover is a REAL treatments performed by qualified doctors. This is NOT some "wonder cure" you see on Facebook or late night TV.

Here is the important truth: There is no 100% guaranteed cure for back pain with or without a herniated disc. No ethical doctor would ever guarantee results or lead you to believe they have a 100% cure for back pain. But there is a treatment that has already helped countless back pain sufferers...possibly just like you.

In fact, here is what researchers said about this treatment in a 2014 study published in Journal of Manipulative and Physiological Therapeutics:

"The proportion of patients reporting clinically relevant improvement in this current study is surprisingly good, with nearly 70% of patients improved as early as 2 weeks after the start of treatment. By 3 months, this group was up to 90.5% and then stabilized at 6 months and 1 year."

We will get into more proof in just a bit...but here is something you should know ...because the treatment is only as good as the doctor you choose...

There is a doctor using this treatment that has taken a very refreshing pledge that has led to back pain sufferers flocking to her office.

This doctor's name is Dr. Debra Yerman and she is a Chiropractor in Encino.

Here Is Something Extremely Important – You may have already been to a Chiropractor or just heard some things you did not like. So...Why is this Chiropractor different and why are so many back pain sufferers willing to give her a try – even when they have been to many other doctors already?

The answer is simple...Dr. Debra Yerman took this pledge..."To the best of my ability, I agree to provide my patient's convenient, affordable, and mainstream Chiropractic care. I will not use unnecessary long-term treatment plans and/or therapies."

In other words, Dr. Yerman uses treatments that are widely accepted and has a goal to treat patients the least amount of times possible. For this reason, Dr. Yerman NEVER tries to sell you a multiple visit, long term treatment plan that can cost thousands of dollars.

Instead, Dr. Yerman does something her patients absolutely love – she accepts patients on a visit-by-visit basis. In other words, she treats you once and you decide if it is something you like and want to continue. There is no commitment and seeing patients as little as possible has made care extremely affordable – even if you do not have insurance coverage.

This no pressure, "patient first" approach is so refreshing, it has patients rant and raving...and the referrals have come in droves.

There is also one other thing about Dr. Yerman patients love...Because she is mainstream, she works hand-in-hand with her colleagues in the medical community. Dr. Yerman gives and receives referrals from the medical doctors all the time because her goal is to give the patient (you) exactly what you want and is best for you.

What Is The Treatment And Is There Any Proof? The treatment is spinal manipulative therapy – and if you have back pain – you are going to love this...

We have already mentioned one quote from the 2014 study...here is another..."This study shows that patients with proven lumbar intervertebral disc herniation and compressive neuropathology that receive traditional chiropractic manipulation are both safe and effective. The ultimate clinical effectiveness of about 90% is impressive when compared to any form of

therapy, and with no reported serious side effects.

This study would suggest that all patients suffering from lumbar intervertebral disc herniation with compressive neuropathology should be treated with chiropractic spinal adjusting."

Is It Safe? According to the study..."Spinal Manipulative Therapy is a very safe and cost effective option for treating symptomatic lumbar disc herniation."

Dr. Yerman is 100% honest and she would like you to know this: Research helps doctors help patients – but no one should expect the results from this study or any other study. All patients are different and all cases are individual. That's why treatment outcomes can never be predicted for any one person. This is why Dr. Yerman offers treatment with no long-term commitment – so you can give it a try and see if it works for you.

Who Should Try This Treatment With Dr. Yerman? You may be a good candidate if you have:

(1) Acute low back pain with or without leg pain,

(2) Low back pain with a herniated or bulging disc – with or without leg pain,

(3) Chronic low back pain.

It is important to note that, according to the study, "Even the chronic patients in this study, with the mean duration of their symptoms being over 450 days, reported significant improvement, although this takes slightly longer."

To find a ChiroTrust Doctor go to ChiroTrust.org.

Chiropractic Care and X-Rays for Low Back Pain

Low back pain (LBP) is the most common complaint for which patients seek chiropractic care. X-rays are a common diagnostic tool utilized by most health care providers. Let's take a look at the role of x-rays and how they are used by both medical practitioners and chiropractors.

X-rays are a form of radiation (similar to light or radio waves) that focuses a beam on a subject such as a person or specific body part. The x-rays mostly pass through softer tissues while hard tissues like teeth and bones do not allow the beam to pass through, which leaves a "white" image on the film. More dense soft tissues, like muscles and organs, will appear as various shades of gray while less dense areas, like the lungs or bowel, will appear black on an x-ray.

Spinal x-rays are basically pictures of the spine that are taken to help the doctor determine a diagnosis as to the cause of the patient's particular problem. Typically, a patient provides a medical history and the doctor performs a clinical examination to establish a primary diagnosis. When necessary, the doctor may order diagnostic tests like x-ray (or a CT, MRI, bone scan, PET scan, ultrasound, blood tests, tissue biopsy, and so on) in attempt to verify or validate the diagnosis.

Spinal x-rays include the bony spine, the disk spaces (between each vertebra – but not the actual disk), and often the pelvis (with or without the hip joints), and extend up to the lower thoracic spine where the lower few ribs are located, depending on the patient's height. Usually, frontal and side views are taken. Other views may include a "spot" (close up), obliques, or flexion/extension stress views. So, what are we looking for?

The FIRST order of business is to make sure we're not dealing with something potentially dangerous like fractures, infections, dislocations, tumors/cancer, and so forth. We look for other things like bone spurs ("osteoarthritis"), the disk heights (disks narrow as they degenerate, usually accompanied with bone spurs), joint spaces, bone density, and alignment – like scoliosis. Chiropractors typically take spinal x-rays in a weight-bearing position (standing) while most medical facilities take their x-rays with the patient lying down.

The "pro" of a weight bearing x-ray is the ability to measure for things like scoliosis, leg length deficiency (a short leg), and joint space narrowing favoring the standing approach. The "con" of weight-bearing x-ray is something called "movement artifact" or, a blurred image. Recumbent

films tend to be clearer and more detailed but with less of an ability to accurately take measurements to evaluate things like leg length or the extent of spinal misalignment. Both MD's and DC's take scoliosis films standing, but otherwise, MD's favor laying down x-rays while DC's favor standing. Regarding the "safety vs. harm" factor of taking an x-ray or not, most guidelines favor waiting if there is no suspicion of pathology (cancer, fracture, infection, etc.) for both professions.

However, when a significant biomechanical problem is suspected, especially if a treatment decision is driven by the test's outcome, it may be appropriate to take x-rays. For example, the use of heel lifts to correct a short leg is also measured on the x-ray. There are also some chiropractic techniques that rely on assessing the bony alignment, which include taking measurements from an x-ray as well. Patient safety is first and each case must be individually assessed. If you think you may be pregnant, DO NOT LET ANYONE X-RAY YOU!

A Low Back Pain Warning You Better Not Ignore…

Low back pain (LBP) typically results from relatively "benign" causes, meaning it's usually safe to wait and try conservative / non-emergency care first. However, there are a handful of times when prompt medical emergency management is appropriate, and it's important that everyone is aware of these uncommon but dangerous and sometimes deadly causes of LBP, hence the purpose of this article.

"Red flags" trace back to the 1980s and 1990s, so this is not a "new" topic. In fact, guidelines for the care of LBP that have been published around the world ALL commonly state the anyone exhibiting these "red flags" needs to be promptly diagnosed and referred for emergent care.

The common conditions cited in these guidelines include (but are not limited to):

1) Cancer,

2) Infection,

3) Cauda equine syndrome,

4) Fracture.

The patient's history can sometimes uncover suspicion of these four conditions BETTER than a routine physical examination, though a definitive diagnosis is usually made only after special diagnostic tests have been completed including (but not limited to) imaging (x-ray, MRI, CT, PET scans), blood tests, bone scans, and more.

1) **CANCER**:

a) Past history of cancer.

b) Unexplained weight loss (>10 kg within 6 months).

c) Age over 50 or under age 18.

d) Failure to respond to usual care (therapy).

e) Pain that persists for four to six weeks.

f) Night pain or pain at rest.

2) **INFECTION:**

a) Persistent fever (>100.4º F).

b) Current/recent URI (upper respiratory tract infection like pneumonia) or UTI (urinary tract or kidney infection).

c) History of intravenous drug abuse.

d) Severe back pain.

e) Lumbar spine surgery within the past year.

f) Recent bacterial infection (cellulitis or persistent wound – e.g., a decubitus ulcer or “pressure sore” in the low back region).

g) Immunocompromised states such as those caused by systemic corticosteroids, organ transplant medications, diabetes mellitus, human immunodeficiency virus (HIV).

3) **CAUDA EQUINA SYNDROME:**

a) Urinary incontinence or retention.

b) Saddle anesthesia.

c) Anal sphincter tone decrease or fecal incontinence.

d) Bilateral lower extremity weakness or numbness.

e) Progressive neurologic deficit or loss – major muscle weakness or sensory deficit.

4) **FRACTURE:**

a) Prolonged corticosteroid use.

b) Age >70.

c) History of Osteoporosis (poor bone density).

d) Mild trauma over age 50.

e) Major trauma at any age (such as a fall).

Another red flag is an Abdominal Aortic Aneurism.

Signs include:

a) Abdominal pulsations.

b) Hardening of the arteries (atherosclerotic vascular disease).

c) Pain at rest or night time pain.

d) Age >60.

Spinal Manipulation AFTER Surgery HELPS!

Unfortunately, low back pain (LBP) is something MOST of us cannot avoid. There is solid evidence that chiropractic care is one of the most effective methods of treating LBP, but there are times when a referral for surgery is needed. What about manipulative therapy (MT) AFTER surgery? Is this a good idea? Does it help?

In March 2015, an article published in the Journal of Back and Musculoskeletal Rehabilitation discussed the pros and cons of MT after lumbar open laser micro discectomy, a common surgical technique used to treat patients with a pinched nerve due to a herniated lumbar disk. Unfortunately, patients who undergo this procedure can experience early post-surgical physical disability that reduces their ability to perform required daily activities. For this reason, the objective of this study was to look at whether early individualized spinal manipulation would reduce the occurrence of post-surgical disability. To do this, 21 patients (aged 25-69) who had a micro discectomy were randomly placed into either a spinal manipulation or an active control group. Manipulation was performed two to three weeks after surgery, at two times a week for four weeks.

The researchers found patients in the MT group experienced a 55% reduction in disability while those in the control group reported a 5% increase in disability! Also, leg pain was reduced by 55% in the MT group compared with only 9% in the control group. This pilot study concluded that while a larger-scale study is recommended, the findings indicate that manipulation "…may be an important option for post-operative management after spinal surgery."

This is yet another testimony that spinal manipulation can not only help many people avoid surgery, but it can also significantly reduce or eliminate back pain and disability AFTER surgery! Spinal manipulation is the most common treatment approach performed routinely by chiropractors. And although other healthcare professionals are showing an increasingly greater interest in learning this skill, manipulation must be performed on a regular, concentrated basis in order to obtain the best outcomes or therapeutic results for patients. So, regardless if you have or have not had surgery for LBP, the benefits of chiropractic and spinal manipulation are recognized as a recommended course of treatment!

Low Back Pain? Should You Take An NSAID?

Statistics suggest that low back pain (LBP) will plague most of us at some point in our lives, if it hasn't already. Most healthcare professions that manage patients with low back pain focus on pain management. In fact, studies have reported that 67% of patient satisfaction is driven by pain elimination. One of the most common strategies for reducing pain is managing inflammation. The "easiest" way to do this (according to the many TV commercials and magazine advertisements) is to take one of the many non-steroidal anti-inflammatory drugs (NSAIDs) such as Ibuprofen (Advil, Nuprin), Piroxicam Flurbiprofen, and Indomethacin. Let's take a closer look to see if this is a good or bad idea!

In a recent March 2015 article, researchers investigated the use of NSAIDs between 1993 and 2012 in patients who had fractures that failed to heal, technically called "non-union fractures." They found that non-union fractures increased during years when NSAID use was increasingly recommended for patients with fractures and dropped in years when NSAID use declined. This isn't the first study to report poor fracture healing results from NSAIDs when they're used as the primary form of pain relief and in fact, studies on this subject date back to the early 1990s.

So how does this equate to LBP? Most directly, fractures are one of the many causes of LBP, so for that population, the answer is clear. However, LBP is much more commonly caused by sprains (ligament injuries) and strains (muscle/tendon injuries), as well as cartilage injury. Here too, studies show that the healing rate of sprains, strains, and cartilage is also delayed when NSAIDs are used as the primary pain relief approach. This healing delay is reportedly due to NSAIDs' inhibition of "proteoglycan synthesis," a component of ligament and cartilage tissue regeneration and repair. NSAIDs also inhibit release of prostaglandins (especially prostaglandin E2), which is needed for tissue repair. These effects are ESPECIALLY observed with long-term use, but recent studies show injured athletes are best off NOT taking NSAIDs AT ALL as these drugs delay the healing process and thus the athlete's ability to return to their sport.

In a January 2015 study, researchers criticized the common use of NSAIDs in elderly patients for the treatment of non-cancerous pain. They found 75% of the elderly population studied was prescribed NSAIDs which, in retrospect, the researchers determined to be inappropriate! Because NSAIDs interfere with healing, the net effect is an ACCELERATION of osteoarthritis and joint deterioration! In 1995, a North

Carolina School of Medicine study compared four groups of patients with soft tissue injuries (tendon strains):

Group 1 received NO treatment (control group);

Group 2 received exercise only;

Group 3 received exercise AND Indomethacin; and

Group 4 received Indomethacin only.

At 72 hours post-injury, ONLY the exercise group had an INCREASE in prostaglandins (E2 particularly – necessary for healing). This effect was even more profound at 108 hours after injury. The research team also found DNA synthesis in the fibroblasts (an important part of the repair mechanism) was greatest in the exercise group and was completely lacking in the NSAID-only group.

Who Gets Low Back Pain?

Low back pain (LBP) occurs all over the world. Between 2004 and 2008, an estimated 2.06 million EPISODES of LBP occurred in the United States (US) alone! Each year, LBP accounts for 3.15% of all emergency visits with 65% of LB injuries occurring at home.

According to estimates, two-thirds of all Americans will experience at least one episode of back pain during their lifetime. Interestingly, according to one study, LBP peaks two times during life: between 25-29 years of age and 95-99 years of age, regardless of cause.

Looking at gender differences, when analyzed by five year age groups, males aged 10-49 and females aged 65-94 had a greater risk for LBP when compared with the opposite gender. Those with European or African ancestry have significantly higher rates of LBP when compared with those of Asian ancestry. Also, older patients have the greatest risk of hospital admission for LBP.

In order to study the incidence of LBP among active duty US military service members, a 2012 study investigated the US Defense Medical Epidemiology Database and looked at 13,754,261 person-years of data (100 25-year-olds would equal 2,500 person-years, for example). The authors of the study report that women have a 45% higher incidence rate than men, and personnel over age 40 are 1.28 times more likely to experience back pain than those who are 25-29 years old.

Looking at single vs. married service members, married personnel have a higher incidence rate (1.21) than non-married personnel, though there is no consensus as to why this is the case. In conclusion, the female gender, age >40 years, and those who are married have the greater risk for LBP in the military.

One study looked at alcohol consumption and the incidence of LBP to see if there was a causal relationship between the two. After searching the literature, no positive link between alcohol consumption and LBP was found. On the other hand, smoking clearly contributes to the incidence of LBP (yet another reason to quit smoking!).

One study looked at daily use, number of years smoked, and total cigarette use during the years of smoking in relation to LBP in 29,424 monozygotic (identical) twin pairs where only one of the two twins smoked.

Researchers determined how many days in the past year LBP was present (1-7 days, 8-30 days, and >30 days) and age, gender, and size/

body mass index for each participant. The results revealed a positive association with smoking and the duration of LBP at 1-7 days (1.4 odds ratio), 8-30 days (2.1), and >30 days (3.0) during the past year.

What's Causing My Back Pain?

Low back pain (LBP) is one of the most common reasons patients seek out Chiropractic care, and they appreciate being told what is causing their back pain. This is why doctors gather a careful and complete history from new patients and perform a physical examination. Once the "pain generator" is determined, a doctor can discuss various treatment options and develop a plan for managing the patient. Let's review some causes of LBP!

If we divide the various conditions into three categories, it significantly improves diagnostic accuracy. These include:

1) Mechanical LBP;

2) Nerve root pain; and

3) "Red Flags" (serious conditions).

The most common conditions are those belonging to the first group. The following is a partial list of conditions that belong to each category:

Mechanical LBP: Causes of mechanical LBP include Lumbar and sacroiliac (SI) sprains, lumbar muscle strains, facet syndrome, degenerative disk disease (DDD) and/or injury to the disk without nerve pinch, osteoarthritis (this can affect different parts of the spine), spinal instability, spondylolysis and/or spondylolisthesis, and more.

The pain pattern is usually localized to the low back and may spread into the buttocks, hips, thighs, but rarely extends past the knee. Usually, there is NO numbness or weakness in the leg or foot because that symptom suggests a spinal nerve pinch.

Nerve root pain can result from herniated disk (from either direct nerve pinching and/or chemical irritation inflaming the nerve), central or lateral spinal stenosis (usually caused by a combination of things including DDD), arthritis, and/or calcification of ligaments near the nerve. These can be managed very successfully without surgery but the careful monitoring of numbness, muscle weakness, and treatment satisfaction is important!

Red Flags: These are the potentially dangerous conditions such as cancer, fracture, infections, cauda equina syndrome (spinal cord pinch creating bowel and/or bladder weakness). Referred pain from organs may be included here as well. As you can see, these carry potentially lethal consequences and require immediate referral and specialty management.

The majority of patients suffering from LBP fall into the first two categories, and the HISTORY can tell us a lot! If the patient complains of pain that stays mostly in the low back but may spread into the buttocks or thigh without numbness/weakness in the leg and feels better with leaning forwards or curling up in a ball, it probably is a Group 1 (mechanical) diagnosis. If there is numbness, tingling, and/or weakness in the leg to the foot and bending over hurts, it's most likely disk derangement (bulge, herniated, etc.) with a nerve pinch. If there is unexplained weight loss, a past history of cancer, non-responding LBP to treatment, sleep interruptions, and age >50 years old, we may now be in category three and further tests are needed!

The IMPORTANT point is that spinal manipulation (chiropractic) can manage the most common causes of LBP as a non-surgical, low-risk form of care.

Low Back Pain in the Older Adult

Low Back Pain in patients over the age of 60. Back pain does NOT discriminate when it comes to age. In fact, chiropractors see many children and teenagers with LBP as well as 90+ year-olds! Let's take a look at the "usual" differences…

In the younger adult, facet syndrome and disk derangement are common conditions, and though this can still occur in the older adult, it becomes less common after age 60. The primary reason is because our disks become dehydrated or "dry up" as we age, making them less likely to herniate compared to a young, well-hydrated disk.

During this "dehydration" process, the disks gradually narrow and bulge outwards. Therefore, in the 60+ year-old adult, disk-related pain is typically NOT from the soft liquid center herniating through the tough outer "annular" layer as it does in the younger patient. Rather, it's from a combination of conditions. These conditions combine together and result in narrowing of the openings through which the nerve root exits the spine (called the neuroforamen).

The multiple conditions that contribute to this process include (but are not limited to): narrowing and bulging of the disk, osteoarthritis, or spurring extending off the vertebral endplates where the disk attaches, facet joint arthritis resulting in "hypertrophy" or enlargement, calcification of ligaments, and more. WHEN the neuroforamen narrows to the point of pinching the nerve root, symptoms occur.

This condition is called "spinal stenosis" (SS), which literally means, "narrowed spinal canals" with entrapment of the spinal cord and/or nerves. Classic symptoms associated with SS include low back pain and stiffness. Most importantly, SS causes a gradual reduction in the amount of time that people with this condition can tolerate walking. Restricted mobility is initially subtle, but after months and years, walking may become more and more limited. That is, every time a certain time frame is reached (like 5 or 10 minutes of walking), the symptoms become significant to the point they force the SS patient to stop and sit or bend over often for one to two minutes, after which time they are able to resume walking for a similar amount of time.

Another common feature is that bending forwards HELPS (because it opens up the neuroforamen), and many SS patients walk bent over as their "norm." When walking in a grocery store, they may lean forwards on the grocery cart because it allows for a longer, less painful walk. Other symptoms common with osteoarthritis (which always precedes SS),

include morning stiffness, stiffness and pain when rising from sitting, decreased range of spinal motion or flexibility, localized painful joints, and others. As mentioned previously, degenerative joint disease or osteoarthritis is a slow, smoldering process that can often be traced back over the past 5, 10, and even 20 years.

As chiropractors, we can improve spinal joint flexibility and slow this process down. Give chiropractic a try as back pain in our elderly years DOES NOT have to be disabling!

For a little inspiration, last year I had a 92-year-old female patient come into my office for help with her back pain. She told me she had to get her low-back pain “fixed fast” because she had to finish choreographing the dancing in a play. We were able to help and I asked if I could share her story. So, keep in mind age does not mean we cannot heal our backs and have less pain, in all cases.

Low Back Pain and Younger Adults

Low back pain (LBP) is so common that if you haven't had it by now, you will! Let's take a look at some the possible causes of LBP and what we might be able to do when LBP strikes.

Typically, younger individuals are NOT immune to LBP. In fact, those between 30-60 years of age are MORE likely to experience LBP caused from a muscle strain, ligament sprain, or disk "derangement" such as a herniated disk. Here are some specific causes:

LBP from a sudden movement or lifting a heavy object – Typical symptoms include:

a) Difficulty moving that can be so severe it can prevent walking or standing.

b) Pain that does NOT radiate down the leg past the knee but may refer pain into the groin, buttock, or upper thigh.

c) Pain that tends to be achy and dull.

d) Muscle spasms (that can be severe).

e) Local soreness noted upon touch.

DIAGNOSIS: The most likely injuries described by the scenario above include a muscle strain or ligament sprain (or, a muscle or ligament pull/stretch/tear that can break down into mild vs. moderate vs. severe, or, microscopic tears vs. up to 75% tearing vs. >75% tearing may occur, respectively). The severity of the injury and how well you take care of yourself will determine healing time.

TREATMENT can include Chiropractic care, ice (15 min. rotations on/off/on/off/on), activity modifications (usually, a combination of walking and resting for the first day or two will help but after that, we will guide you in the proper exercises for stretching and eventually strengthening), and anti-inflammatory care. We prefer herbs such as ginger, turmeric, boswellia, and other nutrients over NSAIDs — like Advil, Aleve, and aspirin — as these irritate the stomach and can damage the liver and kidney. Recent studies show that NSAIDs can also inhibit important chemical activities in the body that may actually slow the healing process.

For this reason, studies have concluded that athletes who are trying to get

back into their sport should be advised NOT to take NSAIDs! The same should apply to everyone, don't you think?

LBP that travels past the knee down the back of the leg often to the ankle or foot is frequently referred to as sciatica.

This may include:

a) Pain that is longer lasting rather than flaring up for a few days or one to two weeks.

b) Pain may be greater in the leg than the low back.

c) Pain is commonly on one side.

d) Pain is worsened by sitting and or bending forwards, and improved by standing and or bending backwards.

e) Symptoms often includes pain, in addition to numbness/tingling, and/or burning.

f) Muscle shrinkage and weakness on the involved side may occur as well.

DIAGNOSIS: In this age group, lumbar herniated disk (LDH) is the most likely cause. The lower two disks – L4/5 and L5/S1 — are the two most common locations for herniated disks. The odd thing about LDH's is that about 50% of us have bulging disks and 20% of us have herniated disks but have NO pain!

TREATMENT: Try chiropractic first. It works and you can always have surgery later, but you can't go back after it's done! We will refer you if our approaches are not satisfying!

Two Important, Yet Simple Tests for Low Back Pain / Leg Pain

The nervous system can be categorized in many different ways. In understanding nervous system physiology, a simple but accurate way of categorization is to view the nervous system as two separate but integrated systems:

The **MOTOR** nerve system

The **SENSORY** nerve system

The **MOTOR** nervous system is the nerves that move our muscles (motor), and also control the function of our visceral organs (like heart, lungs, intestines, pancreas, liver, kidneys, etc.). The nerves that send the electrical signal from our brain and spinal cord to our muscles to control their contraction are actually called motor nerves. The nerves that send the electrical signal from our brain and spinal cord to control the function of our visceral organs are called autonomic nerves. This is because they function automatically, without our thinking and even when we are sleeping. Occasionally these autonomic visceral organ nerves are called visceral motor nerves. The motor nerve systems are output nerves, also called efferent nerves.

The **SENSORY** nerve system is the nerves that send electrical nerve signals into our spinal cord and brain. Therefore, the sensory nerves travel in the opposite direction of the motor nerves. The sensory nerve systems are input nerves, also called afferent nerves.

The sensory nerves have special endings (receptors) that can take environmental events, convert these events into an electrical signal, and send the electrical signal along sensory nerves to the brain for interpretation. The sensory nerves create our senses. It is our lifelong sensory experiences that “mold” our brain.

There are six primary sensory inputs into our brains:

Sight (vision). Our eye has specific sensory receptors that have the ability to take specific electromagnetic waves in the environment, convert them into an electrical signal, send the electrical signal along a nerve (the optic nerve) to a specific place in the brain for interpretation (the occipital visual cortex).

Sound (hearing). Similarly, the ear has specific sensory receptors that have the ability to take specific environmental disturbances, convert them

into an electrical signal, send the electrical signal along a nerve (cochlear nerve) to a specific place in the brain for interpretation (the superior gyrus of the temporal lobe).

Taste. When molecules from food or drink contact our tongue, again an electrical signal is sent via a sensory nerve to the brain for interpretation.

Smell. When certain molecules in the air travel up our nose, an electrical signal is again sent via a sensory nerve to the brain for interpretation.

Touch (requires sub categorization). There are special receptors on our skin and in other tissues like muscle, tongue, teeth, and viscera that generate an electrical single when they are mechanically perturbed. This electrical signal is once again sent via sensory nerves to the appropriate place in the brain for interpretation.

Proprioception is often referred to as our “sixth” sense. There are special receptors in our skin, muscles, joints, fascia, etc., that generate an electrical signal that lets the brain know where we are in space. These receptors and their sensory nerves inform the brain about changes in the position and movements of the various parts of our bodies.

Most of us know where our nose is, even when our eyes are closed, and we can easily touch our nose with the tip of our index finger (we also know where the tip of our finger is, even with eyes closed). With our eyes closed, we cannot see, hear, smell, taste, or touch our nose or fingertip, yet we can easily connect the two. This is proprioception.

Touch (#5) requires elaboration. Touch (for our purposes) will also include the sensations of pain and temperature (hot/cold). When there is a perturbation on our skin, we readily can distinguish between touch, pain, hot, and/or cold. All of these sensations are electrical signals that travel to various parts of the brain for interpretation.

The important point is that all perceptions (sight, sound, taste, smell, touch [including pain and temperature] and proprioception) occur in the cortical brain. “All perceptions are cortical.” This means that they occur in our brain. Lay people often believe that their eye sees, their ear hears, their tongue tastes, their nose smells, or that something at their toe or back or neck hurts. But actually these various parts of our body only initiate an electrical signal that is then interpreted in our brain.

The cortical perception of pain is a universal human experience. The electrical signal for the perception of pain in the brain is brought to the brain via special sensory nerves called nociceptive afferents or nociceptors .

All sensory inputs into the brain begin with a special receptor, except for pain (nociception). The receptor that initiates the electrical signal for sight is different than the receptor that initiates the electrical signal for sound or taste or smell. Pain (nociception) is the great receptor exception in that, for the most part, there is no receptor on the end of the nociceptive nerves. Consequently, the nociceptive nerve beginnings are referred to as free or naked receptors.

The pain problem in our country (USA) and in the world is astonishingly huge and it is getting worse. In the United States alone, 116 million Americans suffer from chronic daily pain (1). A recent cover article in the newspaper The Wall Street Journal quantifies the anatomical regions for American's chronic pain (2):

Hip Pain	07.1%
Finger Pain	07.6%
Shoulder Pain	09.0%
Neck Pain	15.1%
Severe Headache	16.1%
Knee Pain	19.5%
Lower-Back Pain	28.1%

The total cost attributed to America's pain problem, including treatment, lost productivity, and disability, is approaching $1 trillion per year.

It is useful to discuss pain using the categorizations of C. Chan Gunn, MD (3, 4). Dr. Gunn is a Clinical Professor at the Multidisciplinary Pain Center at the University of Washington Medical School, Seattle, Washington. Dr. Gunn's pain categories are:

1) **Nociception Pain**

In this category of pain, there is no tissue damage, and therefore no inflammation. This is the type of pain one would experience if someone stepped on your toe; one would have pain but no tissue damage or inflammation. This type of pain does not require a healthcare provider to diagnose the cause of the pain. The cause of the pain is obvious; someone is standing on your toe.

Likewise, this type of pain does not require healthcare provider treatment. The treatment is obvious; get the person's foot off your toe. The patient self-treats.

With this type of pain, once the person's foot is off your toe, you experience immediate and lasting relief. The prognosis is excellent.

This is the type of pain that most patients (and insurance companies) hope they are experiencing, hoping for instant relief. Sadly, this type of pain rarely makes it into a doctor's office because it is self-diagnosed and treated.

2) **Algogenic Pain**

Suppose that instead of someone stepping on your toe, they smacked your toe with a sledgehammer. Even though the hammer is no longer actually on your toe, your toe still hurts. The hammer added something to the equation, trauma, tissue damage, and inflammation.

This disruption of the tissues and blood vessels by the trauma produces and releases inflammatory chemicals that are often collectively called algogenic exudates .

The inflammatory algogenic chemicals alter the thresholds of the nociceptive afferent system , increasing the pain electrical signal to the brain. Instant relief for this type of pain is not possible. The pain subsides as inflammation resolves and the nociceptive afferents system becomes sub-threshold.

Individuals suffering from this type of pain often go to healthcare providers for relief. Treatment often involves anti-inflammatory efforts (controlled motion, drugs, omega-3s, ice, electrical modalities, low–level laser therapy, etc.) and efforts to accelerate healing (low-level laser therapy). Depending upon the degree of tissue injury and a myriad of individual unique characteristics, response can last days, week, or months.

Chronic inflammation, caused by scar tissue, autoimmune responses, infection, etc., can cause chronic algogenic pain .

3) **Neuropathic Pain**

This is pain that persists after all possible tissue healing has occurred. Once again, instant relief for this type of pain is not possible. This is chronic pain that may persist for months, years, or forever.

Lay people often view pain solely as a bad thing, but healthcare professionals recognize pain to be both friend and foe. For example, if one sits on one's foot for a prolonged period of time, it will eventually begin to hurt. This is an example of nociceptive pain. We simply self-diagnose and treat our foot pain by moving it or changing our sitting position, and the pain goes away.

People are constantly doing things that begin to generate pain, and the pain afferents send a sensory signal to our brain reminding us to stop doing that activity. In this regard, pain keeps us safe, reminding us not to do certain things or to stop doing certain things. Without pain, we would not survive childhood and make it into adulthood.

Chronic pain is another story.

Of the many structures that make up the spine, most of them are capable of generating pain. All of the spinal structures that can initiate the pain signal to the brain have a common factor: they are innervated by sensory afferent nociceptive neurons that carry the pain electrical signal to the brain.

As noted by exceptional spine care pioneer Alf Acheson, MD, whatever causes spine pain must have a nerve (5). In 1991, Stephen Kuslich, MD, and colleagues clarified and quantified the spinal tissues that were capable of initiating the pain electrical signal to the brain as (6):

- Skin
- Superficial Muscles
- Deep Muscles
- Intervertebral Disc
- Facet Joint Capsules
- Periosteum of the Vertebral Bone
- Nerve roots

Any of these tissues are capable of initiating acute spinal pain. Chronic spinal pain perception was primarily attributed to the intervertebral disc and facet capsules, in that order (6). Other studies have primarily attributed chronic neck pain perception to the facet capsules and the intervertebral disc, in that reverse order (7).

For a new incidence of non-traumatic low back or neck pain, it is important for both clinicians and patients to make an initial quick assessment of the severity of the problem. Absent other historical indicators, it is common to assume the pain is algogenic in nature.

This means there is an accumulation of algogenic inflammatory exudates that are increasing the sensitivity of the pain sensory nerves. The first step in doing this is to categorize the symptoms into one of three groups:

Group 1: Spinal pain alone

Either neck pain or back pain without pain radiation into the arms or legs. In general, algogenic spine pain that does not radiate is not serious. It is usually the consequence of a local inflammatory condition. It can be chronic and even disabling, but it is not dangerous.

Group 2: Sclerogenic pain; also known as sclerotomic pain or sclerotogenous pain

Sclerogenic pain radiates from the neck into the arm(s) or from the low back into the leg(s). Classically the pain radiation will not extend below the elbow (from the neck) or below the knee (from the low back).

As a rule, sclerogenic pain is difficult for the patient to localize. The pain presentation is often described as being deep and dull in character, similar to a toothache.

In general, sclerogenic pain is not dangerous. It is a form of referred pain that occurs as a consequence of a shared neuromere during embryonic development. In other words, the neurology of the back and the leg, or of the neck and the arm, are shared embryological, which can cause some confusion as to the exact location of the irritation when the electrical signal is sent to the brain. Originally based on the research of JH Kellgren and colleagues in 1938 and 1939, irritations of deep spinal tissues can cause sclerogenic pain referral to the arm or to the leg (8, 9).

In the sclerogenic pain patient, successful management of the deep spinal tissue irritations will resolve the sclerogenic pain referral. Deep spinal tissue irritations include irritations to the intervertebral disc, the facet joint capsules, and the core stabilization segmental mover muscles. These tissues respond excellently to spinal adjusting.

Group 3: Radicular pain, radiculitis, and radiculopathy

The technical definition of radicular pain is that the spinal nerve root is inflamed, and the classic symptomatology is radiating arm or leg pain. In contrast to sclerogenic pain (a deep dull ache), the pain is often sharp and easily localized by the patient. Also, the pain often travels below the elbow (into the hands and fingers) and/or below the knee (into the foot and toes).

Radicular pain is more serious than sclerogenic pain. It is therefore a good idea to determine (to the best of one's ability) if the pain is radicular or sclerogenic . History and physical examination can be quite accurate in establishing a differential diagnosis. However, conformation will require advanced diagnostic imaging. The current gold standard in advanced

diagnostic imaging is magnetic resonance imaging, or MRI.

Radicular pain is often caused by compression of the nerve root, the compression causing nerve root irritation and/or inflammation. This pathology is commonly referred to as compressive radiculopathy . Interestingly, the compression itself is not necessarily painful. Rather, the pain arises when the compression initiates irritation and/or inflammation of the nerve root. The degree of nerve root compression and its seriousness is estimated with MRI scans.

The most classic cause of radicular compression is herniation of the intervertebral disc. Other causes include arthritic changes (degenerative joint disease, degenerative disc disease, spondylosis) causing osseous (bone spurs, hypertrophic changes, osteophytes) narrowing of the intervertebral foramen.

Each nerve root supplies a specific patch of skin (a dermatome) and a specific muscle (a myotome). Consequently, radicular compression is often associated with specific myotomal muscle weakness and altered sensation in the dermatomal patch of skin (paresthesia).

The deep tendon reflex is a common component of establishing if the extremity pain is sclerogenic or radicular. With radicular compression , the deep tendon reflex is diminished or possibly even absent. There are three common deep tendon reflexes in the arms (assessing the nerve roots of the neck), and two in the legs (assessing the nerve roots in the low back).

Radicular compressive pathology can result in permanent death of some of the neurons in the nerve root, resulting in permanent loss of various functions. Consequently, when compressive radiculopathy is suspected, “red flags” of such pathology should be watched for and assessed. These “red flags” include:

Progressive myotomal muscle weakness.

Atrophy of the muscle.

Saddle anesthesia (loss of sensation in the area of the buttocks that would contact a saddle when sitting).

Loss of bowel, bladder, and/or sexual function.(difficulty starting, difficulty ending, dripping, loss of sensation, etc.)

There are two (one for the neck and one for the low back) very simple tests that are commonly done by healthcare providers to help determine if radiating pain is sclerogenic referral or as a consequence of radicular

compression . These tests can also be easily performed by patients to help determine the seriousness of compression and its progress while under treatment.

Both tests are stretch tests. If the nerve root is compressed, irritated, and inflamed as it exits the spinal column, stretching it will aggravate the discomfort and the radiation.

Low Back Pain With Leg Radiation Test

This test is known as the Straight Leg Raising Test . It is also known as Laseque's Test , after Charles Laseque who first described the test in 1864 (10). The premise of the test is simple: movement of the leg causes movement of the lower lumbar nerve roots.

This test is performed by lying flat on one's back and raising one's leg up into the air while keeping the knee locked straight. Many normal people can do this to almost 90°. Individuals with lower back (lumbar) spinal radicular compression will begin to feel an increased in leg or back symptoms starting at about 35°.

According to Kapandji (11), when the leg is raised during the Straight Leg Raising Test , the lower lumbar spinal nerve roots will slide out of the nerve root hole (intervertebral foramen) by as much as half an inch (12 mm). If the nerve root is entrapped or compressed, the stretch will aggravate the irritation/inflammation, increasing symptoms.

It is accepted that the primary cause of compressive radiculopathy is herniation of the intervertebral disc. Most patients with discogenic compressive radiculopathy obtain symptomatic relief when lying down flat on their back. The probable explanation for this is that the intradiscal pressure is least when in this position (12, 13)

In contrast, it is established that when one sits down, intradiscal pressures are increased by roughly a factor of 6 (25 psi to 140 psi) (12, 13).

Therefore it is argued that performing the Straight Leg Raising Test when sitting down is a better indicator of the presence of discogenic compressive radiculopathy.

This test is known as Bechterew's Test. It is performed by sitting up straight, and then straightening out one's leg until it is parallel with the horizon. An increase in leg or spinal symptomatology is considered to be a positive indicator of the presence of low back/leg compressive radiculopathy.

Brachial Plexus Tension Test of Elvey

The test that is an equivalent to the lower back Straight Leg Raising Test in the neck (cervical spine) is the Brachial Plexus Tension Test of Elvey . This test was originally described by Australian physiotherapist Robert Elvey in 1986 (14). Once again, the premise of the test is simple: movement of the arm causes movement of the lower cervical spine nerve roots.

The step-by-step procedure for performing the Brachial Plexus Tension Test of Elvey are well described by Quintner in the British Journal of Rheumatology in 1989 (15):

TO START:

1. Put the patient supine.
2. Externally rotate the arm and supinate the forearm.
3. Flex the fingers, wrist, and elbow.
4. Abduct the shoulder joint 110 degrees, so that the elbow is superior to the glenohumeral joint.
5. Put the arm behind the coronal plane of the body.

TO ASSESS:

1. Keep the shoulder girdle depressed.
2. Keep the forearm supinated.
3. Extend the elbow.
4. Extend the wrist, supination of the forearm.
5. Extend the fingers.

IF NEGATIVE:

Reassess with the head/neck laterally flexed to the opposite side.

Summary

Both cervical spine and lumbar spine compressive radiculopathies are coupled with a worse prognosis for complete recovery. Compressive radiculopathy typically requires more frequent treatment and more prolonged treatment. Compressive radiculopathy patients often have more long-term subjective and objective residuals, and more disability.

Patients with compressive radiculopathy often require advanced imaging (such as MRI) for a full assessment of their pathology. Occasionally, patients with compressive radiculopathy will require a surgical decompression. These patients should always be monitored for the emergence of “red flag” signs.

The Straight Leg Raising Test (Laseque’s) and the Brachial Plexus Tension Test (Elvey) are simple tests to assess the presence of a compressive radiculopathic process.

Low Back Pain – What To Do Immediately (Part 1)

This article is part 1 of a 2 part series.

Low back pain (LBP) will most likely strike at some point for all of us, at least that's what statistically happens. How we "deal with it" initially can be critical in its progression or cessation. Here are some "highlights" of what to do "WHEN" this happens to you.

STOP: The most important thing you can do is STOP what you are doing. That is, IF you're "lucky enough" to be pre-warned BEFORE the crisis point of LBP strikes. This step can be critical, as once it hurts "too much," it may be too late to quickly reverse the process. The "cause" of LBP is often cumulative, meaning it occurs gradually over time, usually from repetitive motion that overloads the region. As stated previously, "IF YOU'RE LUCKY" you'll be warned BEFORE LBP becomes a disabling/preventing activity. Typically, when the tissues in the low back are over-stressed and initially injured, the nerve endings in the injured tissue trigger muscle guarding as a protective mechanism. This reflex "muscle spasm" restricts blood flow resulting in more pain creating a vicious cycle that needs to be STOPPED!

REACT: This is the "hard part" as it requires you to perform something specifically, but once you prove to yourself that this approach really works, you won't hesitate. You'll need to determine your "direction preference", or the position that reduces LBP. Once established, you can perform exercises to help mitigate your back pain. To make this work, you must be able to perform these exercises in public without drawing too much attention so you can feel comfortable doing them at any time at any place.

EXERCISE A: If BENDING FORWARD feels relieving, the exercise of choice is to sit and a) cross one leg over the other, b) pull that knee towards the opposite shoulder, and c) move the knee in various positions so the area of "pull" changes. Work out each tight area by adding an arch to the low back, rotate your trunk towards the side of the flexed knee (sit up tall and twist – if it doesn't hurt) and alternate between these positions (10-15 seconds at a time) until the stretched area feels "loosened up." A second exercise is to sit and rotate the trunk until a stretch is felt. Again, alternate between different degrees of low back arching during the twists, feeling for different areas of stretch until it feels looser, usually 5-15 seconds per side. A third exercise is to sit and bend forward, as if to tie a shoe, and hold that position until the tightness "melts away."

EXERCISE B: If BENDING BACKWARDS feels best, exercise options include placing your fists in the small of your back and leaning backwards over the fists, or bending backward and holding the position as long as needed to feel relief (usually 5-15 seconds). From a sitting position, try placing a rolled-up towel (make one with a towel rolled tightly like a sleeping bag held with rubber bands) in the small of the back to increase the curve. Lying on your back with the roll and a pillow under the low back can also feel great!

Low Back Pain – What To Do Immediately (Part 2)

Low back pain (LBP), as previously stated, will affect most (if not all) of us at some point in time. Knowing what to do when the warning signs occur is essential to avoiding a disabling level of LBP.

Last chapter, we started the discussion about offering ways to manage the LBP using exercises with the objective of stopping and reversing a potentially serious level of LBP. We offered ways of stretching from a sitting position that can be done in public. Here are some standing exercise options.

EXERCISE C: THE HAMSTRING & GROIN STRETCH: From standing

1) Place your foot up onto a seat, bench, chair, pipe of a railing, or anything about knee level (it doesn't have to be very high). If your balance isn't very good, make sure to hold onto a wall or counter to keep your balance.

2) Keep your knee bent 20-30 degrees and arch your lower back by sticking out the buttocks until you feel the pull or stretch in the hamstrings (back of the leg).

3) Slowly straighten your knee (keep the buttocks poked out and the low back arched) and you will feel the hamstrings gradually get tighter.

4) Change the angle of the knee and/or the amount of low back arch/ pelvic tilt to modify the pulling intensity in the hamstrings. Continue this stretch for 15-30 seconds or until you feel the muscles loosening up.

5) Stay in that EXACT SAME POSITION and rotate your torso inwards (towards the leg you're standing on) until you will feel the pull change from the hamstrings to the groin (inside thigh) muscles. You can also

go back and forth between the hamstrings and the groin (adductor) muscles and continue the exercise until the back of the leg and groin feel adequately stretched (usually 5 to 15 seconds/leg).

EXERCISE D: THE HIP FLEXOR STRETCH: From standing:

1) Step forwards with one leg and stand in a semi-long, stride position (one foot ahead of the other).

2) On the back leg side, rotate the pelvis forwards until the hip lines up with the forward leg hip (or, the pelvis is square).

3) Add a posterior pelvic tilt (tuck in your buttock/pelvis or, flatten your low back).

4) Lean backwards (extend the low back) holding the above position.

As you extend back, feel for the pull deep inside the upper front part of the thigh/groin area. You can alter between the third and fourth steps to release and re-stretch the hip flexor. Continue the stretch for 5-15 seconds or until you feel it's stretched out and repeat on the opposite side. This one takes a little work but once you feel it, you will see why it's so good!

EXERCISE E: THE ADDUCTOR STRETCH: As an alternative to the second part of EXERCISE C (step 5 of the standing hamstring stretch), stand with your legs spread apart fairly wide. Shift your pelvis from side to side (left then right) and feel for the stretch on the inner thigh/groin region. You can increase the stretch by adding a lean to the side you're shifting the pelvis. Try holding the stretch for 5-15 seconds, alternating between sides 5-10 times.

These exercises are meant to be done in public WHEN you need to stretch. Stop the vicious cycle from getting out of control by STOPPING, STRETCHING, and then resuming your activity if you can!

The Mysteries of Low Back Pain!

Do you realize how complicated the low back region is when it comes to investigating the cause of low back pain (LBP)? There can be findings on an x-ray, MRI, or CT scan such as degenerative disk disease, arthritis, even bulging and/or herniated disks that have NOTHING to do with why the back hurts. Similarly, there are often other abnormal findings present in many of us who have NO low back pain whatsoever! Because of this seemingly paradoxical situation, we as clinicians must be careful not to over-diagnose based on the presence of these “abnormal findings” AND on the same hand, be careful not to under-diagnose them as well.

Looking further into this interesting paradox, one study reported findings that support this point. Investigators examined 67 asymptomatic individuals who had NO prior history of low back pain and evaluated them using magnetic resonant imaging (MRI). They found 21 of the 67 (31%) had an identifiable disk and/or spinal canal abnormality (which is where the spinal cord and nerves run).

Seven years later, this same group of non-suffering individuals were once again contacted to see if they had developed any back problems within that time frame. The goal of the study was to determine if one could “predict” who might develop low back pain based on certain abnormal imaging findings in non-suffering subjects. A questionnaire was sent to each of these individuals, of which 50 completed and returned the questionnaire.

A repeat MRI scan was performed on 31 of these subjects, and two neurologists and one orthopedic spine surgeon interpreted the MRI studies using a blinded approach (without having knowledge about the subject’s symptoms or lack thereof). Each level was assessed

for abnormalities including disk bulging/herniation and degeneration. Those who had initial abnormal findings were defined as “progressed” (worsened) if an increased severity of the original finding was evident or if additional or new spinal levels had become involved over the seven-year time span.

Of the 50 who returned the questionnaire, 29 (58%) had NO low back pain, while 21 had developed LBP. In the original group that had the MRI repeated seven years later, new MRI findings included the following: twelve remained “normal,” have had herniated disks, three had developed spinal stenosis, and one had “moderate” disk degeneration. Regarding radiating leg pain, four of the eight had abnormal findings originally, two of the eight had spinal stenosis, one had a disk protrusion, and one an

“extruded” (“ruptured”) disk. In general, repeat MRI scans revealed a greater frequency of disk herniation, bulging, degeneration, and spinal stenosis compared to the original scans. Those with the longest duration of LBP did NOT have the greatest degree of abnormalities on the original scans. They concluded that the original MRI findings were NOT PREDICTIVE of future development of LBP.

They summarized, “...clinical correlation is essential to determine the importance of abnormalities on MR images.” These findings correlate well with other studies, such as 50% or more of all asymptomatic people HAVE bulging disks and approximately 30% of us have herniated disks

– WITHOUT PAIN. To be of diagnostic (clinical) value, the person MUST have signs and symptoms that agree with the imaging test, which is used to CONFIRM the diagnosis. Bottom line, If you have LBP, come see us, as we will evaluate and treat YOU, NOT your x-rays (or MRI) findings!

Low Back Manipulation
How Does it Work?

Low back pain (LBP) is such a common problem that if you haven't suffered from it yet, you probably will eventually. Here are a few facts to consider:

1) LBP affects men and women equally;

2) It is most common between ages 30-50;

3) Sedentary (non-active) lifestyles contribute a lot to causation;

4) Too much or too little exercise can result in LBP;

5) A BMI around 25 is "ideal" for weight management, which helps prevent LBP;

6) Causes of LBP include lifestyle (activity level), genetics – including, but not limited to, weight and osteoarthritis;

7) Occupation;

8) Exercise habits, and the list can go on and on.

Let's next look at how an adjustment is done. We will review a few different techniques.

When manual spinal manipulation is performed in the low-back region, the patient is often placed in a side lying position with the upper leg flexed towards the chest and the bottom leg kept straight. The bottom shoulder is pulled forwards and the upper shoulder is rotated backwards at the same time the low back area receives that the manipulation is rotated forwards. This produces a twisting type of motion that is well within the normal range of joint motion. When the adjustment is made, a "high velocity" (or quick), "low amplitude" (a short distance of movement) thrust is delivered often resulting in "cavitation" (the crack or, release of gases).

So, WHY do we do this?

Most studies show that when there is back pain, there is inflammation.

In fact, inflammation is found in most disease processes that occur both within and outside the musculoskeletal system. We know that when we control inflammation, pain usually subsides. That is why the use of "PRICE" (Protect, Rest, Ice, Compress, Elevate) works well for most

muscle/joint painful conditions. We have also learned that IF we can avoid cortisone and non-steroidal drugs (like aspirin, ibuprofen, naproxen, etc.), tissues heal quicker and better, so these SHOULD BE AVOIDED ! If you didn't know that, check out:

http://www.benthamscience.com/open/torehj/articles/V006/1TOREHJ.pdf

Please see our prior discussions on the use of anti-inflammatory herbs and diets that are MUCH safer than non-steroidal drugs! But what does spinal manipulation DO in reference to inflammation?

Different things occur physiologically during a spinal adjustment or manipulation. We know that the mechanical receptors located in muscles, muscle tendons, ligaments, and joint capsules are stimulated and this results in muscle relaxation (reduced spasm or tightness), increased measurable range of motion, and a decrease in pain.

A recent study also reported that inflammatory markers (CRP and interleukin-6) measured in a blood test, NORMALIZED after a series of nine chiropractic low back manipulations! So, NOT ONLY do spinal adjustments give immediate improvements in pain, flexibility, and muscle relaxation, they also REDUCE INFLAMMATION without the use of any pharmaceuticals!

So, let's review what manipulation does for your low back pain:

1) Pain reduction;

2) Improved flexibility – now you can put on your socks with less pain and strain;

3) Improved functions and activities of daily living like sitting more comfortably, getting in or out of your car, bending over to feed the cat, etc.;

4) Improved sleep quality; and

5) Faster healing time by actually reducing the inflammatory markers in the blood!

Many different techniques are used to help our patients.

Millions of nerves travel throughout the human frame to control the function and physiology of your body. Spinal joints that are out of alignment or not moving properly can affect your health by irritating delicate spinal nerves. When irritated these nerves alert your brain that something is wrong. Symptoms including pain are usually the result. Nerve signals are also sent to your muscles to stabilize and protect

the area. You may feel stiff, sore, and tired. As opposed to taking pain masking drugs, which can be dangerous to your health. Chiropractic care seeks to locate the source of your symptoms and address the underlying cause, so the problem doesn't keep recurring.

There are many different "techniques" to adjust the Low Back and Spine.

Chiropractic adjusting with the Impulse IQ aims to restore your body's balance and function to correct the underlying cause of your symptoms with treatments that are a painless as possible.

What does it feel like?

Like a light tapping sensation on the area that is being treated. In most cases the treatment is painless and after the adjustment many patients feel relief of pain and improved mobility. Others report a sense of well-being or a soothing calm feeling. Of course, results vary from case to case.

EXTREME SPEED

Impulse IQ is twice as fast as other adjusting instruments and 100x faster than manual chiropractic adjustments. The gentle thrust is faster than the body's tendency to tighten up and resist the adjustment.

CONTROLLED FORCE

Impulse IQ has three different force settings for different parts of the body and to treat patients of all ages. The controlled low force thrust of Impulse make treatments comfortable.

COMPUTERIZED ADJUSTMENT

High-tech computerized adjustments with the Impulse IQ actually precisely measure how the spine is moving during the treatment so that just the right amount of care can be provided.

It has a sensor that provides information from our body's response to the micro-computer inside to give the doctor feedback about your results.

Computer-assisted adjusting gives the doctor objective feedback about how your problem area is responding in real-time for custom tailored treatment for my patients.

The Activator Method Technique is a gentle, low-force program of chiropractic care that is gentle and effective. Your Doctor of Chiropractic will discuss what method would be the most affective for you.

I Slipped a Disk – What Is That Exactly?

"I was digging a hole in my garden and hit a rock with the shovel. After clearing the dirt from around the rock, I bent over and reached into the hole. I couldn't get a good grip on the rock and had to twist my body to get my arm under it. As I started to move the rock, I felt something 'give out' in my lower back and felt immediate low back pain, but it wasn't terrible. Like a fool, I gave it another try but this time, the pain in my back was really sharp when I twisted to reach under it. Then, it felt like a knife stabbing me when I tried to stand up. Since then, I can't stand up straight and pain is shooting down my left leg."

The intervertebral disk is like a shock-absorber located between each vertebra in our spine extending from the tail bone to the upper neck. When healthy, your disks truly do function as shock absorbers. There are two parts to the disk – the inner part (called the nucleus) which is the liquid-like center and the tough, laminated, and rubber-like outer part (the annulus) that hold the nucleus in the center of the disk. The annulus has concentric rings which look similar to the rings of an oak tree trunk and the strength of these laminated rings is due to the fibers crisscrossing, creating a self-sealing, secure border for the nucleus center. In spite of this great anatomical structure, our disks degenerate and can crack or tear allowing the more liquid-like nucleus to leak out of the annulus creating the classic "slipped disk" (technically referred to as a herniated or ruptured disk).

When the herniated disk presses into the nerve that goes down the leg, pain is felt along its course and can radiate all the way to the foot. There are five vertebrae and disks with a pair of nerves that go into each leg and depending which disk ruptures, pain will follow a different course down the leg. This is why your chiropractor may ask you if you feel the pain more in the back or in the front of the leg. When the disk tears prior to both disk herniation and leg pain, low back pain occurs because the nerve fibers that are normally only located in the outer third of the disk grow into the central portion of the disk, causing it to generate more pain.

So, now for the important question, "…what can I do for it?" When you visit a doctor of chiropractic, he or she will ask you about how you injured your back. Often, the cause of a herniated disk can be the accumulation of multiple events over time. It certainly can happen after one major event, like our example of lifting a rock out of a hole, but that is usually the "straw that breaks the camel's back" and not the sole cause. Many researchers report it is rare for a healthy disk to herniate. Rather, disk

degeneration with tears already present sets up the situation where a bend plus a twist, "…finishes the job." An orthopedic and neurological examination will usually clearly identify the level of herniation. Chiropractic treatment often includes traction types of techniques, some form of spinal manipulation or mobilization, extension exercises, and physical therapy modalities like electric stimulation, low level laser, or ultrasound, and ice therapy. Core / trunk strengthening and posture management are also Commonly applied and proper lifting/pulling/pushing techniques are taught.

Can Chiropractic Help the Post-Surgical Patient?

Low back pain (LBP) accounts for over 3 million emergency department visits per year in the United States alone. Worldwide, LBP affects approximately 84% of the general population, so eventually almost EVERYONE will have lower back pain that requires treatment! There is evidence dating back to the early Roman and Greek era that indicates back pain was also very prevalent, and that really hasn't changed. Some feel it's because we are bipedal (walk on two legs) rather than quadrupedal (walk on four limbs).

When comparing the two, degenerative disk disease and spinal osteoarthritis are postponed in the four-legged species by approximately two (equivalent) decades. But regardless of the reason, back pain is "the rule," NOT the exception when it comes to patient visits to chiropractors and medical doctors. Previously, we looked at the surgical rate of low back pain by comparing patients who initially went to spinal surgeons vs. to chiropractors, and we were amazed!

Remember? Approximately 43% of workers who first saw a surgeon had surgery compared to ONLY 1.5% of those who first saw a chiropractor! So, the questions this month are, how successful IS spinal surgery, and what about all those patients who have had surgery but still have problems – can chiropractic still help them?

A review of the literature published in the Journal of the American Academy of Orthopedic Surgeons showed that in most cases of degenerative disk disease (DDD), non-surgical approaches are the most effective treatment choice (that includes chiropractic!). They report the success rate of spinal fusions for DDD has been only 50-60%. The advent of artificial disks, which originally proposed to be a "cure" for symptomatic disk disease, has fared no better with possible worse long-term problems that are not yet fully understood.

They state, "Surgery should be the last option, but too often patients think of surgery as a cure-all and are eager to embark on it." They go on to write, "Also, surgeons should pay close attention to the list of contraindications, and recommend surgery only for those patients who are truly likely to benefit from it." Another study reported that, when followed for 10 years after artificial disk surgery, a similar 40% of the patients treated failed and had a second surgery within three years after the first! Similar findings are reported for post-surgical spinal stenosis as well as other spinal conditions.

So what about the success rate of chiropractic management for patients who have had low back surgery? In a 2012 article, three patients who had prior lumbar spinal fusions at least two years previous were treated with spinal manipulation (three treatments over three consecutive days) followed by rehabilitation for eight weeks. At the completion of care, all three (100%) had clinical improvement that were still maintained a year later. Another study reported 32 cases of post-surgical low back pain patients undergoing chiropractic care resulted in an average drop in pain from 6.4/10 to 2.3/10 (that means pain was reduced by 4.1 points out of 10 or, 64%). An even larger drop was reported when dividing up those who had a combination of spinal surgeries (discectomy, fusion, and/or laminectomy) with a pain drop of 5.7 out of 10 points!

Typically, spinal surgery SHOULD be the last resort, but we now know that is not always practiced. IF a patient has had more than one surgery and still has pain, the term “failed back syndrome” is applied and carries many symptoms and disability. Again, to NOT utilize chiropractic post-surgically seems almost as foolish as not utilizing it pre-surgically!

Low Back Pain: Surgery vs. Chiropractic?

Low back pain (LBP) is the second most common cause of disability in the United States (US) and a very common reason for lost days at work with an estimated 149 million days of work lost per year. The total cost associated with this is astronomical at between $100-200 billion/yr., of which 2/3rds are due to decreased wages and productivity.

More than 80% of the population will have an episode of LBP at some point in their lifetime. The good news is that 95% recover within two to three months of onset. However, some never recover which leads to chronic LBP (LBP > 3 months), and 20-44% will have a recurrence of LBP within one year with lifetime recurrences of up to 85%! What this means is that most of us have, have had, or will have LBP, and we'll get it again! So the question is, what are we going to do about it?

Surgery has traditionally been considered a "last resort" with less invasive approaches recommended first. Chiropractic adjustments and management strategies have traditionally faired very well when compared to other non-surgical methods like physical therapy, acupuncture, and massage therapy. But, is there evidence that by receiving chiropractic treatment, low back surgery can be avoided? Let's take a look!

A recent study was designed to determine whether or not we could predict those who would require low back surgery within three years of a job-related back injury. This is a very important study as back injuries are the most common occupational injury in the US, and few studies have investigated what, if any, early predictors of future spine surgery after work-related injury exist. The study reviewed cases of 1,885 Washington state workers, of which 174 or 9.2% had low back surgery within three years. The initial predictors of surgery included high disability scores on questionnaires, greater injury severity, and seeing a surgeon as the first provider after the injury.

Another recent study (University of British Columbia) looked at the safety of spine surgery and reported that (taken from a group of 942 LBP surgical patients):

1) 87% had at least one documented complication;

2) 39% of the 87% had to stay longer in the hospital as a result;

3) 10.5% had a complication during the surgery;

4) 73.5% had a post-surgical complication (which included: 8% delirium, 7% pneumonia, 5% nerve pain, 4.5% had difficulty swallowing, 3% nerve deterioration, 13.5% wound complication);

5) 14 people died as a surgical complication. Another study showed lower annual healthcare costs for those receiving chiropractic vs. those who did not. The “take-home” message is clear: TRY CHIROPRACTIC FIRST!!!

Low Back Pain – Is it on the Rise?

As stated last month, the prevalence of low back pain (LBP) is REALLY high! In fact, it's the second most common cause of disability among adults in the United States (US) and a very common reason for lost days at work. The total cost of back pain in the US, including treatment and lost productivity, ranges between $100 billion to $200 billion a year! Is low back pain on the rise, staying the same, or lessening? Let's take a look!

In the past two decades, the use of health care services for chronic LBP (that means LBP > 3 months) has substantially increased. When reviewing studies reporting insurance claims information, researchers note a significant increase in the use of spinal injections, surgery, and narcotic prescriptions.

There has been an increase in the use of spinal manipulation by chiropractors as well, along with increased physical therapy services and primary care physician driven non-narcotic prescriptions. In general, LBP sufferers who are chronic (vs. acute) are the group using most of these services and incurring the majority of costs. The reported utilization of the above mentioned services was only 3.9% in 1992 compared to 10.2% in 2006, just 11 years later. The question now becomes, why is this? Possible reasons for this increase health care use in chronic LBP sufferers may be:

1) There are simply more people suffering from chronic LBP;

2) More chronic LBP patients are deciding to seek care or treatment where previously they "just accepted and lived with it" and didn't pursue treatment; or,

3) A combination of these factors. Regardless of which of the above three is most accurate, the most important issue is, what can we do to help chronic back pain sufferers?

As we've discussed in the past, an anti-inflammatory diet, exercise within YOUR personal tolerance level, not smoking, getting enough sleep, and obtaining chiropractic adjustments every two weeks are well documented methods of "controlling" chronic LBP (as there really ISN'T a "cure" in many cases).

You may be surprised to hear that maintenance care has good literature support for controlling chronic LBP. In the 8/15/11 issue of SPINE (Vol. 36, No. 18, pp1427-1437), two Medical Doctors (MDs) penned the article, "Does Maintained Spinal Manipulation Therapy for Chronic Nonspecific Low Back Pain Result in Better Long-Term Outcomes?" Here, they took

60 patients with chronic LBP (cLBP) and randomly assigned them into one of three groups:

1) 12 treatments of sham (fake) SMT (spinal manipulation) have over a one month period;

2) 12 treatments, over a one month period but no treatment for the following nine months; or

3) 12 treatments for one month AND then SMT every two weeks for the following nine months.

To measure the differences between the three groups, they measured pain, disability, generic health status, and back-specific patient satisfaction at baseline, 1-, 4-, 7-, and 10-month time intervals. They found only the patients in the second and third groups experienced significantly lower pain and disability scores vs. the first group after the first month of treatments (at three times a week).

BUT, only the third group showed more improvement at the 10-month evaluation. Also, by the tenth month, the pain and disability scores returned back to nearly the initial baseline/initial level in group two. The authors concluded that, “To obtain long-term benefit, this study suggests maintenance SM after the initial intensive manipulative therapy.” Other studies have reported fewer medical tests, lower costs, fewer doctor visits, less work absenteeism, and a higher quality of life when maintenance chiropractic visits are utilized.

Low Back Pain and Balance Specific Exercises

Low back pain (LBP) and its relationship to balance has been the topic for the past two Health Updates, and an initial discussion regarding specific balance exercises was introduced last month. This article will complete the discussion about what you can do to preserve your current balance skills, or better yet, improve them! Remember, wear your foot orthotics and don't forget to move them between your different shoes. Similarly, if you have leg length imbalance, move your heel lift to other shoes or simply purchase additional lifts and keep the heel lift in several pairs of shoes. Also, test your balance skills now before starting a balance exercise program and re-test every 2-4 weeks to measure improvement.

The initial exercise we discussed was standing with your feet together and holding that position for progressively longer times (eyes open and closed). Once you can hold this position with your eyes closed for = 30 seconds, start increasing the balance challenge by:

Move your heel of the left foot next to the big toe of the right foot and repeat the exercise with the eyes open and closed. Repeat on the other side! When successful for =30 sec., do it with eyes closed…..

Place your left foot in front of the right foot/toes (like standing on a balance beam) and repeat the exercise with the eyes open and closed. Repeat on the other side! When successful for =30 sec., do it with eyes closed…..

Repeat #1 and #2 standing on a thin pillow and/or a wobble cushion or rocker board, making sure you are "safe" by standing in the corner of a room or in an entrance to a room where you can grab the door frame when needed. DO NOT RISK falling!

Rocker board exercise options:

Rock forwards/backwards (FW/BW) looking straight ahead (don't look down at your feet). Make sure the board you are using is "safe" (where you can safely step off forwards and backwards). Don't use a board that is too high off the ground (about 3" is maximum). Repeat the FW/BW rocking slowly for 10 minutes periodically opening and closing your eyes.

Repeat "A" but stand at a 45° angle to the front/back direction so you are rocking at an angle using the same methods and time frame.

Repeat "A" but stand at a 90° angle to the front/back direction so you are

rocking at an angle using a similar method and time frame.

You can then “make up” exercises standing on the rocker board or cushion like simulating a golf swing, tennis stroke, or other favorite sport, yoga move, etc. Be creative and make it fun!!!

Where Exactly Does Back Pain Come From?

We're going to discuss some "intrigue" that has plagued low back treatments both conservative and aggressive for many years now.

The intrigue being "WHERE" exactly does the pain generate from. What structure? What neurological mechanism? And with some detective work I think we've uncovered some significant findings.

The modern era in the understanding of low back pain that we're in right now began in 1976 when internationally respected orthopedic surgeon Alf Nachemson published his detailed review (136 references) in the new journal SPINE (1), entitled "The Lumbar Spine: An Orthopedic Challenge ".

In this article, Dr. Nachemson notes that a staggering 80% of us will experience low back pain at some time in our life. He further notes that:

"The Intervertebral Disc Is Most Likely The Cause Of The Pain…"

Dr. Nachemson makes a VERY convincing case when he presents 6 lines of reasoning, supported by 17 references, to support his contention that the intervertebral disc is the most likely source of back pain, including the primary research completed by Smyth and Wright in 1958 (2). Regarding the work by Smyth and Wright, Dr. Nachemson notes:

"Investigations have been performed in which thin nylon threads were surgically fastened to various structures and around the nerve root. Three to four weeks after surgery these structures were irritated by pulling on the threads, but pain resembling that which the patient had experienced previously could only be registered only from the outer part of the annulus" of the disc.

It had been established in the 1930s that herniation of the lumbar disc could put pressure on the nerve root or the cauda equine, resulting in sciatica. However, Dr. Nachemson in this context is saying something dramatically different;

He's Claiming That A Non-Herniated Disc Problem Was Causing Back Pain. At the time (1976), claiming the intervertebral disc was capable of initiating pain was new and not only that, Nachemson claiming the disc to be the most probable source of back pain was both surprising AND revolutionary.

At the time, most authoritative reference texts stated the intervertebral disc was not even innervated with pain afferents and therefore not capable of initiating pain.

As an example, rheumatology professor Malcolm Jayson, MD (editor) in the 1987 text titled The Lumbar Spine and Back Pain , states

“in the mature human spine no nerve endings of any description remain in the nucleus pulposus or annulus fibrosis of the intervertebral disc in any region of the vertebral column.” (3)

A conclusion we now know to be 100% false.

Support for Dr. Nachemson’s contention of disc pain came in 1981 when anatomist and physician Nikoli Bogduk published an extensive review of the literature on the topic of disc innervation, along with his own primary research, in the prestigious Journal of Anatomy (4). Dr. Bogduk notes:

“In the absence of any comprehensive description of the innervation of the lumbar intervertebral discs and their related longitudinal ligaments, the present study was undertaken to establish in detail the source and pattern of innervation of these structures.”

Dr. Bogduk and his team concluded decisively: “The Lumbar Intervertebral Discs Are Supplied By A Variety Of Nerves.”
and “Clinically, The Concept Of ‘Disc Pain’ Is Now Well Accepted.”

Dr. Bogduk returned in 1983 updating his research notes in SPINE, stating more specifically :

“THE LUMBAR INTERVERTEBRAL DISCS ARE INNERVATED posteriorly by the sinuvertebral nerves, but laterally by branches of the ventral rami and grey rami communicantes…

The posterior longitudinal ligament is innervated by the sinuvertebral nerves and the anterior longitudinal ligament by branches of the grey rami.

Lateral and intermediate branches of the lumbar dorsal rami supply the iliocostalis lumborum and longissimus thoracis, respectively.

Medial branches supply the multifidus, intertransversarii mediales, interspinales, interspinous ligament, and the lumbar zygapophysial joints.”

“The distribution of the intrinsic nerves of the lumbar vertebral column systematically identifies those structures that are potential sources of primary low-back pain .”

Adding to the growing momentum of this “disc-pain” concept… In 1987, SPINE published Dr. Vert Mooney’s Presidential Address of the International Society for the Study of the Lumbar Spine. It was delivered at the 13th Annual Meeting of the International Society for the Study of the Lumbar Spine, May 29-June 2, 1986, Dallas, Texas, and titled (6):

Where Is the Pain Coming From?

In this article, Dr. Mooney notes the following:

“Six weeks to 2 months is usually enough to heal any stretched ligament, muscle tendon, or joint capsule.

Yet we know that 10% of back ‘injuries’ do not resolve in 2 months and that they do become chronic.”

“Anatomically the motion segment of the back is made up of two synovial joints and a unique relatively avascular tissue found nowhere else in the body – the intervertebral disc. Is it possible for the disc to obey different rules of damage than the rest of the connective tissue of the musculoskeletal system?”

“Persistent pain in the back with referred pain to the leg is largely on the basis of abnormalities within the disc.”

Chemistry of the disc is based on the relationship between mucopolysaccharide production and water content.

“Mechanical events can be translated into chemical events related to pain.”

An important aspect of disc nutrition and health is the mechanical aspects of the disc related to the fluid mechanics.

“Mechanical activity has a great deal to do with the exchange of water and oxygen concentration” in the disc.

The pumping action maintains the nutrition and biomechanical function of the intervertebral disc. Thus, “research substantiates the view that unchanging posture, as a result of constant pressure such as standing, sitting or lying, leads to an interruption of pressure-dependent transfer of liquid. Actually the human intervertebral disc lives because of movement.”

“The fluid content of the disc can be changed by mechanical activity, and the fluid content is largely bound to the proteoglycans, especially of the nucleus.”

“In summary, what is the answer to the question of where is the pain coming from in the chronic low-back pain patient? I believe its source, ultimately, is in the disc. Basic studies and clinical experience suggest that mechanical therapy is the most rational approach to relief of this painful condition.”

“Prolonged rest and passive physical therapy modalities no longer have a place in the treatment of the chronic problem.”

This model presented by Dr. Mooney in this paper goes on to discuss:

The intervertebral disc as the primary source of both back pain and referred leg pain. The disc apparently becomes painful because of altered biochemistry, which sensitizes the pain afferents that innervate it.

Disc biochemistry is altered because of mechanical problems , especially mechanical problems that reduce disc movement.

Therefore, the most rational approach to the treatment of chronic low back pain is mechanical therapy that restores the motion to the joints of the spine, especially to the disc.

Prolonged Rest Is Inappropriate Management

Additional support for the disc being the primary source of back pain was presented by Dr. Stephen Kuslich in the prestigious journal Orthopedic Clinics of North America in April 1991 (7). The title of his article is:

The Tissue Origin of Low Back Pain and Sciatica:
A Report of Pain Response to Tissue Stimulation During Operations on the Lumbar Spine Using Local Anesthesia

These authors performed 700 lumbar spine operations using only local anesthesia to determine the tissue origin of low back and leg pain, and they present the results on 193 consecutive patients studied prospectively. Several of their critically important findings for you include:

“Back pain could be produced by several lumbar tissues, but by far, the most common tissue or origin was the outer layer of the annulus fibrosis.”

The lumbar fascia could be “touched or even cut without anesthesia.”

Any pain derived from muscle pressure was “derived from local vessels and nerves, rather than the muscle bundles themselves.”

“The normal, uncompressed, or unstretched nerve root was completely insensitive to pain.”

“In spite of all that has been written about muscles, fascia, and bone as a source of pain, these tissues are really quite insensitive.”

In summary, these authors found that…The Outer Annulus Is “THE SITE” Of A Patient’s Back Pain.

Past studies that suggest the disc is not an important source of low back pain because nerve endings “are not present” are clearly and overwhelmingly erroneous when you carefully analyzed the most modern literature.

Documented research at no time has demonstrated irritation of a normal or inflamed nerve root to produce low back pain. Back muscles themselves are proven not to be a source of back pain; in fact, the muscles, fascia, and bone are really quite insensitive for pain. The inflamed, stretched, or compressed nerve root is in fact the cause of buttock, leg pain and sciatica, but not back pain.

Very recently in 2006, physician researchers from Japan published in SPINE the results of an extremely sophisticated immunohistochemistry study of the sensory innervation of the human lumbar intervertebral disc (8). The article is titled: The Degenerated Lumbar Intervertebral Disc is Innervated Primarily by Peptide-Containing Sensory Nerve Fibers in Humans

The Japanese researchers note: “Many investigators have reported the existence of sensory nerve fibers in the intervertebral discs of animals and humans, suggesting that the intervertebral disc can be a source of low back pain.”

“Both inner and outer layers of the degenerated lumbar intervertebral disc are innervated by pain sensory nerve fibers in humans.”

Pain neuron fibers are found in all human discs that have been removed because they are the source of a patient’s chronic low back pain.

The nerve fibers in the disc, found in this study, “indicates that the disc can be a source of pain sensation.”

The information and data offered by these studies from across 30 years of published research in the most highly respected journals CLEARLY and UNEQUIVOCALLY demonstrates that…

The Annulus Of The Intervertebral Disc Is Primarily Responsible For The Majority Of Chronic Low Back Pain.

Above (6), Dr. Vert Mooney notes in his Presidential Address to the International Society for the Study of the Lumbar Spine that, “basic studies and clinical experience suggest that mechanical therapy is the most rational approach to relief of this painful [intervertebral disc] condition.”

In Support Of Dr. Mooney's Perspective, Four Such Studies Are Reviewed Here: In 1985, Dr. Kirkaldy-Willis, a Professor Emeritus of Orthopedics and director of the Low-Back Pain Clinic at the University Hospital, Saskatoon, Canada, published an article in the journal Canadian Family Physician (9).

In this study, the authors present the results of a prospective observational study of spinal manipulation in 283 patients with chronic low back and leg pain.

All 283 patients in this study had failed prior conservative and/or operative treatment, and they were all totally disabled. These patients were given a "two or three week regimen of daily spinal manipulations by an experienced chiropractor."

These authors determined a good result from manipulation to be: "Symptom-free with no restrictions for work or other activities."

OR

"Mild intermittent pain with no restrictions for work or other activities."

81% of the patients with referred pain syndromes subsequent to joint dysfunctions achieved the "good" result.

48% of the patients with nerve compression syndromes, primarily subsequent to disc lesions and/or central canal spinal stenosis, achieved the "good" result.

Dr. Kirkaldy-Willis attributed this clinical outcome to Melzack and Wall's 1965 "Gate Theory of Pain." He noted that the manipulation improved motion, which improved proprioceptive neurological input into the central nervous system, which in turn blocked pain.

Dr. Kirkaldy-Willis' conclusion from the study was: "The physician who makes use of this [manipulation] resource will provide relief for many back pain patients."

In 1990, Dr. TW Meade published the results of a randomized comparison of chiropractic and hospital outpatient treatment in the treatment of low back pain. This trial involved 741 patients and was published in the prestigious British Medical Journal (10). It was titled:

Low back pain of mechanical origin: Randomized comparison of chiropractic and hospital outpatient treatment

The patients in this studied were followed for a period between 1 – 3 years. Nearly all of the chiropractic management involved traditional joint

manipulation. Key points presented in this article include: “Chiropractic treatment was more effective than hospital outpatient management, mainly for patients with chronic or severe back pain.”

“There is, therefore, economic support for use of chiropractic in low back pain, though the obvious clinical improvement in pain and disability attributable to chiropractic treatment is in itself an adequate reason for considering the use of chiropractic.”

“Chiropractic was particularly effective in those with fairly intractable pain-that is, those with a history of severe pain.”

“Patients treated by chiropractors were not only no worse off than those treated in hospital but almost certainly fared considerably better and that they maintained their improvement for at least two years.”

“The results leave little doubt that chiropractic is more effective than conventional hospital outpatient treatment.”

Most importantly, the above studies indicate that the primary tissue origin of chronic back pain is the intervertebral disc.

This study by Meade notes that the benefit of chiropractic is seen primarily in patients that are suffering from severe chronic pain.

This would suggest that chiropractic manipulation is affecting the pain afferents arising from the disc. A plausible theory to support this is found below… at the end of this presentation.

Also, the Meade study authors definitively note that if all back pain patients without manipulation contraindications were referred for chiropractic instead of hospital treatment, there would be significant annual treatment cost reductions, a significant reduction in sickness days during the following two years, and a significant savings in social security payments.

In 2003, the highly regarded orthopedic journal SPINE published a randomized clinical trial involving the nonsteroidal anti-inflammatory cox-2 inhibiting drugs Vioxx or Celebrex v. needle acupuncture v. chiropractic manipulation in the treatment of chronic neck and back pain (11). The title of the article is: Chronic Spinal Pain: A Randomized Clinical Trial Comparing Medication, Acupuncture, and Spinal Manipulation

In this study chiropractic was over 5 times more effective than the medications and better than twice as effective as needle acupuncture in the treatment of chronic spine pain.

Chiropractic was able to accomplish these clinical outcomes without any reported adverse effects.

One year after the completion of this 9-week clinical trial, 90% of the original trial participants were re-evaluated to assess their clinical status.

The authors discovered that only those who received chiropractic during the initial randomization benefited from a long-term stable clinical outcome. The results of this second assessment were published in 2005 (12).

An important question to consider…How does joint manipulation reduce chronic back pain arising from the intervertebral disc?

I find that the most plausible explanation is offered by Canadian orthopedic surgeon WH Kirkaldy-Willis in the first edition (1983) of his book titled Managing Low Back Pain .

Dr. Kirkaldy-Willis describes the biomechanics of how the two facet joints form a three-joint complex with the intervertebral disc.

He notes that “motion at one site must reflect motion at the other two.” It is probable that spinal manipulation primarily mechanically affects the facet articulations.

According to Dr. Kirkaldy-Willis, such facet motion would necessarily cause motion in the intervertebral disc. Consistent with the published data noted above, this would improve fluid mechanics of the disc, disperse the accumulation of inflammatory exudates, and initiate a neurological sequence of events that would “close the pain gait.”

In the final conclusion, the outcomes of the clinical trials noted speak for themselves.

Low Back Pain and Sleep – Part 1

Low back pain (LBP) can arise from a lot of causes, most commonly from bending, lifting, pulling, pushing, and twisting. However, there are other possible causes, including sleep. This not only includes sleeping in a crooked or faulty position, such as falling asleep on a couch, in a chair or while riding in a car, but also from the lack of sleep. So the question is, how much sleep is needed to feel restored and how much sleep is needed to avoid low back pain?

It's been shown that the lack of sleep, or chronic sleep loss, can lead to serious diseases including (but not limited to): heart disease, heart attack, heart failure, irregular heartbeat, high blood pressure, stroke and diabetes. Sleepiness can also result in a disaster; as was the case in the 1979 nuclear accident at Three Mile Island, the oil spill from the Exxon Valdez, as well as the 1986 nuclear disaster at Chernobyl. With sleep deprivation, our reaction time is slowed down, and hence, driving safety is a major issue. The National Highway Traffic Safety Administration estimates that fatigue causes more than 100,000 crashes per year with 1500 annual crash-related deaths in the US alone.

This problem is greatest in people under 25 years old. Job related injuries are also reportedly more frequently, especially repeat injuries in workers complaining of daytime sleepiness which resulted in more sick days. It's also well published that sleep plays a crucial role in thinking and learning. Lack of sleep impairs concentration, attention, alertness, reasoning, and general cognitive function. In essence, it makes it more difficult to learn efficiently. Also, getting into a deep sleep cycle plays a critical role in "consolidating memories" in the brain, so if you don't get to a deep sleep stage (about 4 hours of uninterrupted sleep), it's more difficult to remember what you've learned.

An interesting study (U. of Pennsylvania) reported that people who slept less than 5 hours/night for 7 nights felt stressed, angry, sad, and mentally exhausted. As shown in another study of 10,000 people, over time, insomnia (the lack of sleep) increases the chances by 5-fold for developing clinical depression. Other clinical studies have published many other negative effects of sleep deprivation, of which some include aging of the skin, forgetfulness, weight gain, and more.

Regarding low back pain, what comes first? Does LBP cause sleep interference or does sleep deprivation cause the LBP (or both)? It's been shown that sleep loss can lower your pain threshold and pain tolerance, making any existing pain feel worse, so it works both ways. Specific to LBP, in a 28-year, 902 metal industry worker study, sleep disturbances

(insomnia and/or nightmares) predicted a 2.1-fold increase in back pain hospitalizations with one and a 2.4-fold increase with both sleep disturbance causes (insomnia and nightmares). Other studies have shown patients with chronic LBP had less restful sleep and more “alpha EEG” sleep compared to controls. Similar sleep pattern differences using EEG (electroencephalogram – measures brain waves) have been shown when comparing chronic LBP patients with vs. without depression compared to controls (non-LBP, non-depressed subjects).

So the BOTTOM LINE, talk to us about how chiropractic helps reduce LBP, stress and facilitates sleep. There are also nutritional benefits from Melatonin, valarian root, and others that we can discuss. Now, go to bed and get a good night’s sleep!

Low Back Pain and Sleep – Part 2

Last article, we discussed the relationship between sleep deprivation and low back pain (LBP) and found that LBP can cause sleep loss AND sleep loss can cause LBP. It's a 2-way street! This month, we will look at ways to improve your sleep quality, which in return, will reduce your LBP. There are many ways we can improve our sleep quality. Here are some of them:

Turn off the lights: Complete darkness (or as close to it as possible) is best. Even the tiniest bit of light in the room can disrupt your internal clock and your pineal gland's production of melatonin and serotonin. Cover your windows with blackout shades or drapes.

Stay cool! The bedroom's temperature should be =70 degrees F (21 degrees C). At about four hours after you fall asleep, your body's internal temperature drops to its lowest level. Scientists report a cooler bedroom mimics your body's natural temperature drop.

Move the alarm clock. Keeping it out of reach (at least 3 feet) forces you to get out of bed and get moving in the AM. Also, you won't be inclined to stare at it during the night!

Avoid loud alarm clocks. It is very stressful on your body to be suddenly jolted awake. If you are regularly getting enough sleep, an alarm may even be unnecessary.

Reserve your bed for sleeping. Avoid watching TV or doing work in bed, you may find it harder to relax and drift off to sleep. It is best to avoid anything with a lit screen right before bedtime. (or if you wake up in middle of the night.)

Get to bed before 11pm. Your adrenal system does a majority of its recharging between the hours of 11 p.m. and 1 a.m. and adrenal "burn-out" results in fatigue and other problems.

Be consistent about your bed time. Try to go to bed and wake up at the same times each day, including weekends. This will help your body to get into a sleep rhythm and make it easier to fall asleep and get up in the morning.

Establish a bedtime routine. Consider meditation, deep breathing, using aromatherapy, or essential oils, or massage from your partner. Relax and reduce your tension from the day.

Eat a high-protein snack several hours before bed to provide the L-tryptophan needed for your melatonin and serotonin production.

There are other “tricks” that ensure a good night’s rest that we will continue with next month as this is a VERY important subject and can literally add years to your life and life to your years.

Low Back Pain and Sleep – Part 3

For the last 2 months, we've discussed the importance of sleep and its effect on low back pain (LBP). Last month, we offered 9 ways to improve sleep quality, and this month we will conclude this topic with 11 more. Sleep deprivation has been called, "…an epidemic" by the Centers for Disease Control and Prevention.

To achieve and maintain good health, we must ensure restorative sleep! Here are additional ways to do that (continued from last month):

Avoid snacks at bedtime …especially grains and sugars as these will raise your blood sugar and delay sleep. Later, when blood sugar drops too low (hypoglycemia), you not only wake up but falling back to sleep becomes problematic. Dairy foods can also interrupt sleep.

Take a hot bath, shower or sauna before bed. This will raise your body temperature and cooling off facilitates sleep. The temperature drop from getting out of the bath signals to your body that "it's time for bed."

Keep your feet warm! Consider wearing socks to bed as our feet often feel cold before the rest of the body because they have the poorest circulation. Cold feet make falling asleep difficult!

Rest your mind! Stop "brain work" at least 1 hour before bed to give your mind a rest so you can calm down. Don't think about tomorrow's schedule or deadlines.

Avoid TV right before bed. TV can be too stimulating to the brain, preventing you from falling asleep quickly as it disrupts your pineal gland function.

Consider a "sound machine." Listen to the sound of white noise or nature sounds, such as the ocean or forest, to drown out upsetting background noise and soothe you to sleep.

Relaxation reading. Don't read anything stimulating, such as a mystery or suspense novels, as it makes sleeping a challenge.

Avoid PM caffeine. Studies show that caffeine can stay active in your system long after consumption.

Avoid alcohol. Though drowsiness can occur, many will often wake up several hours later, unable to fall back asleep. This can prohibit deep sleep, the most restoring sleep (~4th hour).

Exercise regularly! Exercising for at least 30 minutes per day can improve your sleep.

Increase your melatonin. If you can’t increase levels naturally with exposure to bright sunlight in the daytime and absolute complete darkness at night, consider supplementation.

Low Back Pain: What Are Your Treatment Goals?

Low back pain (LBP) has been a challenge to treat for centuries and evidence exists that back pain has been a concern since the origins of man. Chiropractic offers one of the most patient satisfying and fastest treatment approaches available. But, when you go to a chiropractor, there seems to be a lot of different approaches utilized from doctor to doctor. Is there any evidence that suggests one approach is favored over another? How are the patient's goals addressed?

Let's look at what chiropractors actually do. Sure, we manipulate the spine and other joints in the upper and lower limbs using a variety of techniques, which seems to be the "brand" of chiropractic. This is good as joint manipulation has consistently been reported to be safe, effective, and with few side effects. Since this is the "staple" of chiropractic, it's safe to say that regardless of our preferred or chosen technique, obtaining a good result is highly likely.

But, chiropractic includes SO MUCH MORE than just joint manipulation! For example, we focus on the whole person, not just their isolated issue or complaint. Using low back pain as our example, a "typical" evaluation includes a detailed history of the patient's general health, past history, illness history, family history, personal habits including sleep quality, exercise habits, dietary issues, quality of life measurements and a review of systems. By gathering this information, we can identify areas that may be directly related to low back pain care, indirectly related, or possibly not related at all, but interferes with the person's quality of life which, in turn, increases LBP. It's really difficult to separate our low back from the rest of our body.

For example, if a person has plantar fasciitis, a heel spur, an ingrown toe nail, diabetic neuropathy in their feet, pes planus or flat feet, an unstable ankle from multiple sprains, knee or hip problems, the gait pattern or, the way a person walks will be affected and the "domino effect" can trickle up to change the low back/pelvic function — resulting in low back pain! Proper management must address all of the issues that are affecting the patient's gait if long-term success in low back pain management is expected, rather than just putting a "band aid" on the problem.

Let's talk about what treatment goals we like to address when we treat our low back pain patient population. The most obvious first goal is pain cessation or getting rid of pain! Since this is what usually drives the patient into our office, patient satisfaction with the care received will

not be significant unless the pain is managed. This is achieved through advice, reassurance and training. We often recommend ice (vs. heat) aimed at reducing inflammation, activity modification (teaching proper bending, lifting, pulling, and pushing techniques) and gentle stretching exercises when LBP is present in this acute stage.

Once the pain becomes more manageable and activities become less limited, the second goal is structural restoration. This usually includes managing the flat foot possibly with foot orthotics, a short leg with a heel lift, sole lift or combination, an unstable ankle, knee or hip with exercise often emphasizing balance challenge exercises, and sometimes an orthotic that can be as simple as an elastic wrap to a more elaborate brace. This goal also includes “functional restoration” or transitioning the patient back into real life activities they may be afraid to try such as work, golf, gardening, walking or running, etc. We want to shift from relief of pain to reduction of activity intolerances associated with pain.

The third goal is prevention oriented. This may include nutrition (including vitamin/mineral recommendations), weight management (though this is also part of the 2nd goal), exercises (aerobic, stabilization, balance, stretch), and stress management (yoga, lifestyle coaching, etc.). We treat ALL of you, not just your parts!

Is It My Low Back Or My Hip?

When patients present with low back pain, it is not uncommon for pain to arise from areas other than the low back, such as the hip. There are many tissues in the low back and hip region that are susceptible to injury with have overlapping pain pathways that often make it challenging to isolate the truly injured area. Hip pain can present in many different ways.

When considering the anatomy of the low back (lumbar spine) and hip, and the nerves that innervate the hip come from the low back, it's no wonder that differentiating between the two conditions is often difficult. Complaints may include the inside, outside, front or back of the thigh, the knee, the buttocks, the sacroiliac joint, or the low back and yet, the hip may truly be the pain generator with any of these presentations.

To make diagnosis even more complex, the hip pain patient may present one day with what appears to be sciatic nerve pain (that is, pain shooting down the back of the leg to the knee if mild or, to the foot if more severe) but the next time, with only groin pain. When pain radiates down a leg, the almost automatic impression by both the patient and the health care provider is, "…it's a pinched nerve." But again, it could be the hip and NOT a pinched nerve that is creating the leg pain pattern. Throwing yet another wrench in the works is the fact that a patient can have more than one condition at the same time. So, they truly MAY simultaneously have BOTH a low back problem AND a hip problem. In fact, it's actually unusual to x-ray the low back of a hip pain patient without seeing some low back condition(s) like degenerative disk disease, osteoarthritis (spurs off the vertebrae), or combination of these. So, how do we differentiate between hip vs. low back pain when it is common for both low back and hip pain to often coincide?

During our history, we often ask the question, "…what activities make your pain worse?" If the patient replies that weight bearing activities like standing, walking, getting up from sitting, etc., provoke the pain (and they point to the front or side of the hip), a hip related diagnosis is favored but, it STILL may be arising from the low back or both! If they say, "… crossing my right leg over the other hurts in my groin," that's getting more hip pain specific, as hip rotation is frequently lost before the forward flexion motion. When we ask the hip pain patient to point to the area of greatest discomfort, they usually point to the front of the hip or groin, and less often to the inner and/or anterior thigh or knee. Non-weight bearing positions like sitting or lying are almost always immediately pain relieving. When there is arthritis in the hip, motion loss is often reported and may include a shorter walking stride and pain usually gets worse the longer these patients are on their feet. Initiating motion often hurts, sometimes

even in bed when rolling over. During the chiropractic examination, with the patient lying on the back with the knee and hip both bent 90°, moving the bent knee outwards or inwards will almost always reproduce hip/groin area pain. Pulling on or, applying traction to the affected leg usually, "… feels good." Knee & ankle reflexes and sensation are normal but muscle strength may be weak due to pain. Bending the low back into different positions does not reproduce pain if the pain is only coming from the hip. Though challenging sometimes, we are well trained to be able to differentiate between hip and low back pain and will treat both areas when it is appropriate.

It is helpful to keep a good range of motion in the hip joints. Your chiropractor can evaluate your hip ranges and make suggestions from their findings.

Lose The High Heels?

Maybe not...

I know, blasphemy. But, before you storm out the door in your Manolo Blahnik's, hear me out. There might be a cost to those high heels, and not just to your pocketbook, but to your health. The jury is still out on this one. If you have been wearing high heels your whole life you might not be able to even walk with flats. Below are a few tricks and a few things to think about.

Lower Back Pain:

How do you feel after a long day of wearing heels? If you're like millions of other women, your feet may hurt, and your lower back will often be in pain. This makes perfect sense when you consider that wearing heels can cause your pelvis to shift when you walk or stand, placing enormous pressure on the lower back.

Shortened Achilles Tendon:

According to many researchers, women who wear heels over a long period of time actually shorten their Achilles tendon and the muscles of the calves, leading to pain and muscle spasm, often of the lower back. (See below for stretching exercise.)

Callouses & Ingrown Toenails:

Yes, this isn't a back pain issue, but in the interest of appealing to your vanity, I had to bring it up. So, what happens when you try to squish three inches of toes into a one-inch pointy shoe box? You create pressure on the sides of your feet and toes.

Eventually, this is going to lead to a hardening of the skin. At the same time, high heels cause your feet to slide down and crush your toes, leading to ingrown toenails (not so pretty when you decide to swap those stilettos for cute summer sandals).

Falling and Sprained Ankles:

High heels cause an unbalance between the ball of your foot and the heels, forcing you to put all your weight on the ankle. All it takes is a slight crack in the floor or pavement to wreak havoc.

Ultimately, most patients intuitively feel like wearing high heels are bad for their spines, knees, ankles and hips. The evidence does point in that direction. Of course, depending on your individual condition and history,

this might or might not be true for you. Personally, I believe we all know if our bodes hurt more after wearing heels. We can do the math for ourselves. You might be one of the lucky ones.

And like anything else, we will also need to decide for ourselves if that pain is worth it, and how often. That being said, not everyone will need to give up high heels. But, this doesn't mean we should ignore the possible serious consequences.

We can still take proactive steps to avoid long- term problems.

Here's what you can do:

Avoid wearing the same pair of shoes every day. Your shoes should fit properly and offer good arch and heel support.

Avoid walking long distances in your high heels. If you walk to work, or park a long distance away, always wear comfortable sneakers, then slip on cuter shoes once you get to the office. Keep flats under your desk if you need to walk a lot at lunch.

Wear soft insoles to reduce impact on your knees and hips.

When Lehigh University researchers gave back-pain sufferers lightweight, flexible shoes with simple cushions, 80% reported significant relief within a year.

Stretch Your Calfs:

Stretch your calf muscles and feet. Stand on the edge of a step with no shoes on. Keep the weight on the balls of your feet and your heels extending off the edge, slowly lower your heels off the end of the step so they are lower than your toes and you feel the stretch.

Start this exercise up on your toes and slowly lower heels below the bottom of the step.

Note: If this stretch is too difficult, put one leg in front of you and with the back leg keep your heel on the ground while you gently bend forward.

Low Back Pain and Common Mistakes

We often read about what to do for low back pain (LBP), but do we look at LBP from the perspective of "what NOT to do!"

ICE vs. HEAT: If you ask your doctor, "what's better for my back, ice or heat?" the answer is either one or the other or, "...whichever you like better." This leaves the LBP patient at a loss of who or what to believe. So, let's settle this once and for all. Ice should be tried first because it will rarely make the LBP worse, whereas heat can. Ice is an "anti-inflammatory" agent, meaning it reduces swelling. Ice reduces congestion or pushes painful chemicals and fluids that accumulate out of the injured area when there is inflammation and usually feels good (once it's numb), maybe not initially because it's cold.

Heat does the opposite of ice. It's a vasodilator meaning it pulls fluids INTO the area. Sure, it feels "good" initially, but often people will say it makes them worse later. That's because the additional fluid build up in an already inflamed area is kind of like throwing gasoline on a fire. When LBP is chronic (it's been there >3 months), heat MAY be preferred. Contrast therapy or, alternating between the two can work as an effective "pump" pushing out fluids (with ice) and pulling in fluids (with heat). Here, start and end with ice so the last things done are "anti-inflammatory."

IGNORE YOUR LBP: The comment, "I was just hoping it would go away," has been used by all of us at some point. Though LBP can get better over time, it's simply impossible to know when or if it will. If you have suffered from back pain previously, then you already know that getting in quickly for a chiropractic adjustment BEFORE the reflex muscle spasm sets up can stop the progression, often before it reaches a disabling level. If you want to reduce the chances of missing work or a golf game due to LBP, come in immediately when the "warning signs" occur – you know, that 'little twinge' in your back that's telling you, "...be careful!"

BED REST: There is a time for rest and a time for exercise, but knowing what to do when is tricky. Another "true-ism" is the best exercise when done too soon may harm you, but when done at the right time will really help. So, here are some general guidelines:

a) No more than 24-48 hours of mostly bed rest;

b) Walking is usually a great, safe starting activity after or even during the first 48 hours;

c) Avoid activities that create sharp pain (like bend, lift, twist combinations);

d) Use ice or contrast therapies a lot during that initial 48 hours;

e) Follow our exercise instructions and treatment plan – we'll guide you through this process.

FOCUS ON X-RAY OR MRI FINDINGS: Did you know that about 50% of us have bulging disks, and 20% of us have herniated disks in our low back and yet have NO pain? That's right! Many of us have "disk derangement" but no symptoms whatsoever. Similarly, the presence of arthritis on x-rays may have no relationship to an episode of LBP. It's easy to blame an obvious finding on an image for our current trouble, but it may be misleading. In fact, it can even make a person fearful of doing future activities that may be just ne or even good for us. The WORST thing for some types of arthritis is to do nothing. That will just lead to more stiffness and pain!

STAY STILL: You've heard, "...don't do that – you'll get a bad back!" There is something to be said about being careful, but one can be too cautious as well. In order to determine how much activity vs. rest is appropriate, you have to gradually increase your activities by keeping track of how you feel both during and after an activity. If you do notice pain, it may be "safe" to continue depending on the type and intensity of the pain. In general, a sharp, knife-like pain is a warning sign that you should STOP what you're doing, while an ache is not.

Until you're comfortable about which type of pain is "safe," start out with the premise, "...if in doubt, stop." If the recovery time is short (within minutes to hours), then no "harm" was done. If it takes days to recover, you overdid it. Think of a cut on your skin – if you pick at it too soon, it will re-bleed, but if you are careful, you can do a lot of things safely without "re-bleeding." Talk to us about the proper way to bend, lift, pull, push, and perform any activity that you frequently have to do that often presents problems. There is usually a way to do that activity more safely!

SURGERY IS A "QUICK FIX": Though in some cases this may inevitably be the end result for your back condition, most of the time, it is not needed. As a rule, don't jump to a surgical option too soon. It's tempting to view surgery as a "quick x," but non-surgical care at least for 4-6 weeks and maybe several months is usually the best approach. As the old saying goes, you can't "un-do" a surgery, so wait. UNLESS there are certain warning signs such as:

a) bowel or bladder weakness &/ or,

b) progressive neurological losses (worsening weakness in the leg).

If there are no “surgical indicators” meaning, no instability, no radiating leg pain, and only low back pain that is non-specific and hard to isolate what is generating the pain, DO NOT have surgery as the chances of improvement following surgery drops off dramatically in this group. There are guidelines that we all should follow and they all support non-surgical care initially for 4-6 weeks. Chiropractic is one of the best options cited in these guidelines because it’s less costly, involves less time lost from work, and chiropractic carries the highest patient satisfaction.

DON’T STRETCH – IT’S HARMFUL: You may have heard or read that stretching can actually increase or worsen your time if you’re a runner, reduce your ability to lift heavy weight (if you’re a weight lifter), or cycle as fast. Though this seems obviously silly, there IS a growing body of evidence that has found this TO BE TRUE! HOWEVER, it appears (at least at present), that is applies primarily to static, long hold stretching and NOT to dynamic exercising like jumping jacks, toy-soldier like high kicks, or core stabilization.

Moreover, no study YET has found a negative effect for non-athletic competitive activities or for low back pain specifically. A good general rule is, if you feel better after exercising, or in this case stretching, it’s probably better for you than not. Also, as stated last month, there is a “right vs. wrong” time to exercise and WAY to exercise. For example, when LBP occurs in flexion but reduces in extension, there is plenty of evidence published that performing exercises INTO the direction of pain relief is VERY helpful. So until you hear differently, KEEP ON STRETCHING, but follow our advice!

The Value Of Magnetic Resonance Imaging Of The Lumbar Spine To Predict Low-Back Pain In Asymptomatic Subjects : A Seven-Year Follow-Up Study.

BACKGROUND: In 1989, a group of sixty-seven asymptomatic individuals with no history of back pain underwent magnetic resonance imaging of the lumbar spine.

Twenty-one subjects (31%) had an identifiable abnormality of a disc or of the spinal canal. In the current study, we investigated whether the findings on the scans of the lumbar spine that had been made in 1989 predicted the development of low-back pain in these asymptomatic subjects.

METHODS: A questionnaire concerning the development and duration of low-back pain over a seven-year period was sent to the sixty-seven asymptomatic individuals from the 1989 study. A total of fifty subjects completed and returned the questionnaire. A repeat magnetic resonance scan was made for thirty-one of these subjects.

Two neuroradiologists and one orthopaedic spine surgeon interpreted the original and repeat scans in a blinded fashion, independent of clinical information.

At each disc level, any radiographic abnormality, including bulging or degeneration of the disc, was identified. Radiographic progression was defined as increasing severity of an abnormality at a specific disc level or the involvement of additional levels.

RESULTS: Of the fifty subjects who returned the questionnaire, twenty-nine (58%) had no back pain. Low-back pain developed in twenty-one subjects during the seven-year study period. The 1989 scans of these subjects demonstrated normal findings in twelve, a herniated disc in five, stenosis in three, and moderate disc degeneration in one.

Eight individuals had radiating leg pain; four of them had had normal findings on the original scans, two had had spinal stenosis, one had had a disc protrusion, and one had had a disc extrusion. In general, repeat magnetic resonance imaging scans revealed a greater frequency of disc herniation, bulging, degeneration, and spinal stenosis than did the original scans.

CONCLUSIONS: The findings on magnetic resonance scans were not predictive of the development or duration of low-back pain. Individuals with the longest duration of low-back pain did not have the greatest degree of anatomical abnormality on the original, 1989 scans. Clinical correlation is essential to determine the importance of abnormalities on magnetic resonance images.

What Is The Right Pillow For Me?

Anyone who's ever had a bad night sleep at a motel knows all too well how the wrong pillow can affect the quality of your sleep. Of course, a bad pillow doesn't just rob us of our sleep. It may also worsen or intensify neck pain and other related neck conditions, such as headaches, upper back pain, shoulder pain and arm numbness, or nerve pain stemming from the neck. Our low back can be affected as well.

So, what is the best kind of pillow to you use?

In my office I size pillows for patients who need one, and I have clearly found that no one pillow serves all. Patients with arthritis might need a different pillow than someone with pain down the arm, or someone else who has migraines. In other words, we all have different conditions and neck sizes that make it hard to give a generalized answer.

However the general guidelines are as follows:

You want a pillow that keeps your head in a neutral position throughout the night.

Those who sleep on their backs need a thinner to medium-sized pillow so their head is not too far forward (or a Neck Roll, aka Cervical Pillow). Note: If using a Neck Roll Pillow, start o for 10-15 minutes, then work up from there.

If you're a stomach sleeper, "bedtime belly flop" places pressure on joints and muscles. This is NOT good for your spine. However, if you insist, look for a very thin, almost flat pillow. You may not even need a pillow for your head as just keeping the head against the mattress may help your head and neck maintain a neutral position. Again, this is NOT good for your spine and may contribute to chronic neck pain.

If you sleep on your side, you need a firmer pillow to fill in the distance between your ear and outside shoulder. Your head should be the same distance between your ear and the end of your shoulder as it is when you are standing. In other words do not have your head flexed to the side. Sometimes it takes a few pillows to be comfortable.

Even if you like to sleep on your side or face down, always "start out" on your back (yes you can). Also, use a round pillow or a soft squishy feather pillow. If you want you can even roll a hand towel into a "log shape" and make it about the width of your fist. Now, put the pillow behind just your neck, so that your head and upper back are on the mattress. It will feel like a slight traction on your neck. (This helps stretch your neck, relaxes

your low back muscles and establishes the proper curve of your neck, which a lot of us have lost due to whiplash injuries). It should feel good and relaxing. Stay like this for 15-20 minutes before you fall asleep. Then you can toss it aside and move into your comfortable position.

A lot of my patients are initially skeptical, saying they have never been able to sleep on their backs, but after a few nights of doing the 20 minutes they are able to sleep on it all night. In fact, many start regularly sleeping on their backs. Of course, if snoring is an issue, this might not be appropriate for you.

Low Back Pain: Spondylolisthesis

Low back pain can arise from many conditions, one of which is a mouthful: spondylolisthesis. The term was coined in 1854 from the Greek words, “spondylo” for vertebrae and “olisthesis” for slip. These “slips” most commonly occur in the low back, 90% at L5 and 9% at L4. According to www.spinehealth.com and others, the most common type of spondylolisthesis is called “isthmic spondylolisthesis,” which is a condition that includes a defect in the back part of the vertebra in an area called the pars interarticularis, which is the part of the vertebra that connects the front half (vertebral body) to the back half (the posterior arch). This can occur on one, or both sides, with or without a slip or shift forwards, which is then called spondylolysis. In “isthmic spondylolisthesis,” the incidence rate is about 5-7% of the general population favoring men over women 3:1.

Debate continues as to whether this occurs as a result genetic predisposition verses environmental or acquired at some point early in life as noted by the increased incidence in populations such as Eskimos (30-50%), where they traditionally carry their young in papooses, vertically loading their lower spine at a very young age. However, isthmic spondylolisthesis can occur at any time in life if a significant backward bending force occurs resulting in a fracture but reportedly, occurs most frequently between ages 6 and 16 years old.

Often, traumatic isthmic spondylolisthesis occurs during the adolescent years and in fact, is the most common cause of low back pain at this stage of life. Sports most commonly resulting in spondylolisthesis include gymnastics, football (lineman), weightlifting (from squats or dead lifts) and diving (from overarching the back). Excessive backward bending is the force that overloads the back of the vertebra resulting in the fracture sometimes referred to as a stress fracture, which is a fracture that occurs as a result of repetitive overloading over time, usually weeks to months.

If the spondylolisthesis lesions do not heal either by cartilage or by bone replacement, the front half of the vertebra can slip or slide forwards and become unstable. Fortunately, most of these heal and become stable and don’t progress. The diagnosis is a simple x-ray, but to determine the degree of stability, “stress x-rays” or x-rays taken at endpoints of bending over and backwards are needed. Sometimes, a bone scan is needed to determine if it’s a new injury verses an old isthmic spondylolisthesis.

Another very common type is called degenerative spondylolisthesis and occurs in 30% of Caucasian and 60% of African-American woman (3:1 women to men). This usually occurs at L4 and is more prevalent in aging

females. It is sometimes referred to as “pseudospondylolisthesis” as it does not include defects in the posterior arch but rather, results from a degeneration of the disk and facet joints. As the disk space narrows, the vertebra slides forwards. The problem here is that the spinal canal, where the spinal cord travels, gets crimped or distorted by the forward sliding vertebra and causes compression of the spinal nerve root(s), resulting pain and/or numbness in one or both legs. The good news about spondylolisthesis is that non-surgical approaches, like spinal manipulation in particular, work well and chiropractic is a logical treatment approach!

Where Is My Pain Coming From?

Low back pain can emanate from many anatomical locations (as well as a combination of locations), which always makes it interesting when a patient asks, "…doc, where in my back is my pain coming from?" In context of an office visit, we take an accurate history and perform our physical exam to try to reproduce symptoms to give us clues as to what tissue(s) may be the primary pain generators. In spite of our strong intent to be accurate, did you know, regardless of the doctor type, there is only about a 45% accuracy rate when making a low back pain diagnosis? This is partially because there are many tissues that can be damaged or injured that are innervated by the same nerve fibers and hence, clinically they look very similar to each other. In order to improve this rather sad statistic, in 1995 the Quebec Task Force published research reporting that accuracy could be improved to over 90% if we utilize a classification approach where low back conditions are divided into 1 of 3 broad categories:

Red flags – These include dangerous conditions such as cancer, infection, fracture, cauda equine syndrome (which is a severe neurological condition where bowel and bladder function is impaired). These conditions generally require emergency care due to the life threatening and/or surgical potential.

Mechanical back pain – These diagnoses include facet syndromes, ligament and joint capsule sprains, muscle strains, degenerative joint disease (also called osteoarthritis), and spondylolisthesis.

Nerve Root compression – These conditions include pinching of the nerve roots, most frequently from herniated disks. This category can include spinal stenosis (SS) or, combinations of both, but if severe enough where the spinal cord is compromised (more commonly in the neck), SS might then be placed in the 1st of the 3 categories described above.

The most common category is mechanical back pain of which "facet syndrome" is the most common condition. This is the classic patient who over did it ("The Weekend Warrior") and can hardly get out of bed the next day. These conditions can include tearing or stretching of the capsule surrounding the facet joint due to performing too many bending, lifting, or twisting related activities. The back pain is usually localized to the area of injury but can radiate down into the buttocks or back of the thigh and can be mild to very severe.

Low Back Pain: Why Is It So Common?

This question has plagued all of us, including researchers for a long time! Could it be because we're all inherently lazy and don't exercise enough? Or maybe it's because we have a job that's too demanding on our back? To properly address this question, here are some interesting facts:

The prevalence of low back pain (LBP) is common, as 70-85% of ALL PEOPLE have back pain that requires treatment of some sort at some time in life.

On a yearly basis, the annual prevalence of back pain averages 30% and once you have back pain, the likelihood of recurrence is high.

Back pain is the most common cause of activity limitation in people less than 45 years of age.

Back pain is the 2nd most frequent reason for physician visits, the 5th ranking reason for hospital admissions, and is the 3rd most common cause for surgical procedures.

About 2% of the US workforce receives compensation for back injuries annually.

Similar statistics exist for other countries, including the UK and Sweden.

So, what are the common links as to why back pain is so common? One reason has to do with the biomechanics of the biped – that is, the two legged animal. When compared to the 4-legged species, the vertically loaded spine carries more weight in the low back, shows disk and joint deterioration and/or arthritis much sooner, and we overload the back more frequently because, well, we can! We have 2 free arms to lift and carry items that often weigh way too much for our back to be able to safely handle.

We also lift and carry using poor technique. Another reason is anatomical as the blood supply to our disks is poor at best, and becomes virtually non-existent after age 30. That makes healing of disk tears or cracks nearly impossible. Risk factors for increased back injury include heavy manual lifting requirements, poor or low control of the work environment, and prior incidence of low back pain. Other risk factors include psychosocial issues such as fear of injury, beliefs that pain means one should not work, beliefs that treatment or time will not help resolve a back episode, the inability to control the condition, high anxiety and/or

depression levels, and more. Because there are so many reasons back problems exist, since the early 1990's, it has been strongly encouraged that we as health care providers utilize a "biopsychosocial model" of managing those suffering with low back pain, which requires not only treatment but proper patient education putting to rest unnecessary fears about back pain.

Low Back Pain and Spinal Fusions

You may think it's odd to discuss low back pain (LBP) from the perspective of spinal fusion because as chiropractors, we do not perform surgery and so, why discuss it? It is important that we discuss research such as this so we can make the informed treatment decisions with our patients after we've considered all the facts in each specific case. Now, there are certainly times when a surgical procedure for back and leg pain is necessary and appropriate for some patients, but the problem is, there are also some patients who have been told they need spinal surgery when, in fact, they may be better off NOT proceeding with surgery. So, the question is, what happens to those patients who elect not, vs. those who do choose to proceed with surgery?

That question was addressed in a study where a total of 1450 patients injured at work were followed over a 2-year time frame. There were a total of 725 patients who proceeded with the fusion surgery and the other 750 elected NOT to have the surgery. A fusion surgery can be described as when two or more vertebra are fused together, usually because there are neurological problems such as shooting leg pain, weakness and/or numbness in one or both legs. The conditions treated in this study included herniated disks, degeneration of the disk, and radiating leg pain. There were primarily 3 factors that were compared between the two groups, namely,

1) ability to return to work;

2) disability (the inability to work), and

3) opiate (narcotic) drug use. Other factors compared included the need for re-operations, complications, and death.

The results showed, in general, those who proceeded with surgery had significantly more problems compared to those who did not have surgery. For example, only 26% returned to work, compared to 67% returned to work. The total number of days off work were 1140 vs. 316 days, respectively. There were 17 vs. 11 deaths, respectively and, 27% of the surgical group required re-operations with a 36% complication rate. Also, there was a 41% increase in the use of narcotic medication with 76% continuing the use after surgery.

Again, there are times when surgery is absolutely the right choice. Those times include when there is a loss of bladder or bowel control, progressively worsening neurological symptoms in spite of non-surgical

care, and of course, unstable fractures, cancer/tumor and infections, but that's about it! In other words, if you don't have one of the before mentioned conditions which do require surgery, don't be too quick to jump at the chance of "getting it fixed" with surgery. As the study suggests, the post-surgical results favor those who elected NOT to have surgery. Also, when in doubt, don't trust the opinion of only one surgeon – always get a 2nd or even 3rd opinion.

It is also very important to consider your current level of function or, your ability to do your desired tasks and, unless there is a significant loss in that ability, consider additional time with non-surgical treatment. The non-surgical treatment you can expect to receive from chiropractic includes (but may not be limited to) spinal manipulation, exercise training, physical therapy modalities (ice, heat, electrical stimulation, ultrasound, traction, etc.), dietary counseling, and job modification information.

Low Back Pain and Balance Exercises

You may recall last month, we talked about the relationship between low back pain and balance, particularly our unfortunate increased tendency to fall as we “mature.” This month, we’re going to look at ways to improve our balance by learning specific exercises that utilize the parts of our nervous system that regulate balance or, proprioception. Particularly, our cerebellum (back of the brain that regulates coordination), the vestibular system (the inner ear where the semi-circular canals are located), the ascending tracts in our spinal cord (the “highways” that bring information to the brain from our feet and the rest of our body), and the small “mechano-receptors” located in our joints that pick up our movements as we walk and run and sends that information through our nerves, up the spinal cord tracts to the brain. Here are some very practical exercises to do, “…for the rest of our lives.” Start with the easy ones!

Easy (Level 1) : Standing eyes open/closed – Start with the feet shoulder width apart, look straight ahead to get your balance and then close the eyes and try not to sway counting to 30 by, “…one thousand one, one thousand two, one thousand three, etc.” Repeat this with your feet closer together until they touch each other. You can make this harder by standing on a pillow or cushion — but don’t start that way!

Medium (Level 2) : Lunges – from a similar starting position as #1, step forwards with one leg and squat slightly before returning back to the start position. Repeat this 5x with each foot/leg. As you progress, you can take a longer stride and/or squat down further with each repetition. You can even hold onto light dumbbells and/or close your eyes to make it more challenging.

Hard (Level 3) : Rocker or wobble board exercises – use a platform that rocks back & forth or, wobbles in multiple directions. Rock back and forth, eyes open and then closed, once you get comfortable on the board. You can rotate your body on the board, standing straight ahead (12 o’clock) followed by 45 degree angles as you work your way around in a circle at 45 degree increments (12, 1:30, 3, 4:30, 6, 7:30, 9, 10:30 and back to noon). Repeat these eyes open and closed. The Wii Balance board is a fun way to exercise – check that out as well. You can “improvise” and mix up different exercises and create your own routine. Just remember, stay safe, work slowly until you build up your confidence and keep challenging yourself.

Low Back Pain, Balance, and Foot Orthotics

Low back pain (LBP) can result from many causes, and sometimes it just occurs for reasons that are not clear, such as the accumulation of stresses that occur over time. Many causes of low back pain have been described such as bending over “wrong,” combined bending and twisting, lifting, over reaching, climbing, sitting too long, repetitious activities at home or work, sports injuries, being out of shape, and so on. But what about balance? Because poor balance leads to falling, which is the #1 cause of injuries in the elderly, ANYTHING that we can do to improve our balance should help prevent falls and hence low back injuries. Let’s look at strategies to improve our balance...

First, let’s measure our ability to balance by using a simple test you can do yourself. Stand on one leg in the corner of a room or in a doorway where you can easily grab onto something if you feel like you’re going to fall. Try to do this without holding on to anything, rst with your eyes open and a second time with your eyes closed. If you have a stopwatch, click it when you start and stop (when you put your foot down). Otherwise, count, “...1001, 1002, 1003, etc.” Studies have shown that for those under 60 years old, you’re “normal” if you can balance on one leg with your eyes open for 30 seconds and 25 seconds with your eyes closed. Between ages 60-69, normal is 23 sec. (eyes open) and 10 sec. (eyes closed) is normal. If you’re 70-79 years old, normal is 14 seconds (eyes open) and 4 seconds (eyes closed). Give it a try! Notice how “normal” drops as we age. From 25 sec. to 4 sec. between age 59 and 70 is pretty dramatic! No wonder falling is so common among the elderly!

So, now that you’ve tested yourself, I’m guessing you aren’t too impressed with your balance skills. The question now is, how can we improve our balance? Performing balance exercises with a rocker, wobble board or cushion is VERY EFFECTIVE! You’ll be surprised that if you use this for 10 minutes a day, the improvement in balance is significant in just 2 weeks. Another method takes no effort at all on your part, and that is the use of custom made foot orthotics. Simply known as arch supports, foot orthotics (the good “prescription” kind) correct the rolling in or out of the heel bone, referred to as pronation (rolling in = most common) or supination (rolling out) by wedging the heel of the orthotic/arch support. This stabilizes the ankle joint, reduces the inward or outward shift at the knee and hip joints, and as a result, improves our balance.

Results of a recent study proved this to be the case. Researchers studied 13 subjects over 65 years of age who reported at least 1 unexpected fall

in the past 12 months and measured their balance skills using a similar test as the one you just tried as well as 3 other tests (tandem stance, tandem gait, and alternating step tests) twice before and twice after starting use of custom foot orthotic intervention (immediately after and 2 weeks later). In each of the 4 balance tests, improvement was statistically significant in the post-tests and 2-week later follow-up tests PROVING that balance is effectively improved when wearing custom made foot orthotics. We recommend doing BOTH the exercises and the use of custom foot orthotics to obtain even better results. Since falling is such a common occurrence at any age, especially in those over 60-65 years old, these simple strategies seem like a “no-brainer” to implement into a treatment program, especially for people with poor bone density at high risk for fractures.

Would Traction Help My Back Pain?

Traction is a common form of treatment for patients with low back pain. By definition, traction is the “act of pulling a body part.” That basically means traction can be applied to an arm, leg, finger, toe… virtually any body part that one can get a hold of. Here, the focus of traction is being applied to the lower part of the spine and the primary objective is for pain relief and restoring function. Traction “works” by applying a force that separates and increases the space between joints. It also stretches the surrounding soft tissues, including ligaments, joint capsules, muscles, and tendons. Spinal traction can be applied manually (with the hands) or by a device with either the use of complicated computerized equipment or by a gravity-assisted means such as using the body’s weight and gravity as the traction force.

Common conditions of the spine for which traction is often utilized include low back sprains and strains, disk herniations (“slipped disks”), and spinal stenosis. Spinal stenosis occurs when there is a narrowing of the hole or canal through which a nerve root exits the spine or where the spinal cord travels, often caused by arthritic spurs. Hence, it is most common after the age of 60 years old. Traction has been shown to improve circulation, reduce inflammation, and by movement of the joints, it may also reduce the nerve’s excitability, resulting in pain reduction.

The “dose” of traction, from a clinical experience standpoint, is determined by patient comfort. When determining the dose of traction for the first time, patients are advised to pay careful attention to the way they feel during the time traction is applied. Often, it feels good at first but may become uncomfortable as time passes. If there is sharp pain, radiating pain (such as down a leg), or if it is just not comfortable, traction should be discontinued and the recovery time should be reported.

A “typical” dose is 10-15 minutes of time, and the traction force can be continuous or intermittent, kind of like turning on a water faucet and leaving it running vs. turning it on and off. With intermittent traction, your doctor can vary the time that the force is applied such as 30 seconds on and 10 seconds off. Generally, the total treatment time can be longer with intermittent traction (such as 15 minutes) compared to continuous traction, where 10 minutes may be utilized. The traction weight or force can be gradually increased, depending on tolerance and individual patient response to the prior weight.

The Cochrane Report found traction is most effective for cases of

sciatica or nerve root pressure creating leg pain. Also, it's best when used in conjunction with other treatment approaches. In a chiropractic setting, manual traction (where the doctor uses their hands to apply the force) is often utilized along with side to side or figure-8 movements to achieve better results. Spinal manipulation, activator method, IQ Impulse technique, muscle massage, myofascial release techniques, exercise training for both stretch and strengthening purposes, and patient education (such as teaching proper bend/lift/pull/push techniques) are often utilized to achieve the most satisfying results when managing patients with low back pain.

Back Pain and Lyme Disease

Low back pain (LBP) affects most of us at some point in life, and usually its cause is mechanical. We typically do not think about low back pain resulting from a virus or bacteria, though we might be quick to recall times when LBP occurred suspiciously close to an infection such as a flu or a cold. Today's topic looks at a less common but dangerous cause of low back pain: Lyme disease.

Lyme disease (LD) was originally recognized in 1975 when an unusual number of children were diagnosed with juvenile rheumatoid arthritis in the city of Lyme, Connecticut and a neighboring town. The investigators at that time thought it was suspicious that these affected children lived near woods and that their symptoms would recur during the summertime, the height of the tick season. Unique findings included a peculiar rash on the skin that developed just prior to the onset of arthritic-like symptoms, and many recalled being bitten by a tick near the rash site. Further investigation led to the discovery that tiny DEER ticks infected with a spiral shaped bacterium or spirochete, later named Borrelia burgdorferi, were indeed the responsible culprit of the LD associated arthritis. Ordinarily, wood ticks or dog ticks do not carry the infection.

Investigators found that the Borrelia burgdorferi bacterium usually feed and mate on deer during part of their life cycle. With the expansion of suburban developments in rural regions alongside a growing deer population, more and more people have been infected by this bacterium. Geographically specific regions include the coastal Northeast, mid-Atlantic states, Wisconsin, Minnesota, and Northern California. Lyme disease has also been found in large areas of Asia and Europe and more recently, in South America.

Lyme disease can affect the heart, brain, nervous system, and other parts of the body in varying degrees as it progresses. The bacteria enters the body where the tick bite occurs and days to weeks later, as the bacteria spread in the skin, an expanding reddish rash often with flu-like symptoms occurs. Later, it can produce abnormalities in the joints, heart, and nervous system. Three phases of LD include:

1) Early localized disease with skin inflammation;

2) Early spread of the disease with heart (arrhythmias and more) and nervous system involvement (e.g. Bell's palsy and meningitis);

3) Late disease includes motor and sensory nerve damage and brain inflammation, as well as arthritis.

More than 25% do not develop a rash and many cannot recall a tick bite. A rash can develop within days to weeks of the bite, may or may not itch, is often accompanied with fatigue, muscle and joint stiffness, painful and swollen lymph nodes, headache, and less often, fever. The rash usually resolves without treatment in approximately one month, and from weeks to months later, the effects of the bacteria can spread through the body, potentially affecting the joints (especially the knees), heart, and nervous system.

The “ideal” treatment is antibiotics within the first four to six weeks because of the potential harm Lyme Disease can cause. Kids 5-14 and adults 40-50 are the populations that are most often affected. Lyme disease is NOT contagious. As chiropractors, we recognize the importance of an accurate diagnosis and will promptly refer you for conditions such as this!

The “Aging” Lower Back – Part 1

Low back pain (LBP) can arise from many causes. Nearly everyone has or will suffer from LBP at some point in time, though it is most common in the 30-year-old to 50-year-old group and it affects men and women equally. However, what about the elderly population and low back pain? Let’s discuss back pain unique to the geriatric population…

We’ve all heard of the “wear and tear” factor as it applies to clothing, automobiles, shoes, and tires, but it affects our bones and joints too! A condition that none of us can fully avoid is called osteoarthritis (OA). OA is the “wear and tear” factor on our joints, particularly the smooth covering called hyaline cartilage located on the surfaces of all moving joints. It’s the shiny, silky smooth surface that we’ve all seen at the end of a chicken leg when we separate it from the thigh. Osteoarthritis is the wearing away of that shiny, smooth surface and it can eventually progress to “bone-on-bone” contact where little to no movement is left in the affected joint.

Bone spurs can also occur and be another potential generator of back pain. OA is NOT diagnosed by a blood or lab test but rather by an accurate history, physical examination, and ultimately, an x-ray. However, when the low back is affected by OA, it may not even hurt! Yes, in some cases, there may be a significant amount of OA on an x-ray and that patient may not have significant problems.

Or the opposite can occur and some patients with very little arthritis can have a lot of back trouble. It’s FREQUENTLY very confusing. The “take-home” message with OA is that, in and of itself, it does not always generate pain.

This is why the history, physical examination, and the response to treatment (chiropractic adjustments, exercise, and possibly some lifestyle changes in diet and activity) are MORE important than the amount of arthritis found on the x-rays. Ultimately, we will ALL get OA sooner or later. It’s usually a slow, gradual process that may slowly change our activity level. Ironically, KEEP MOVING is the best advice we can give to the patient with OA.

There are a number of conditions associated with OA that affect the spine and respond well to chiropractic treatment. Degenerative disk disease (DDD) is one of those conditions found in association with OA. In fact, another name for OA is “degenerative joint disease” (DJD)! The normal anatomy of the intervertebral disk (IVD) consists of a thick, tough outer layer of fibroelastic cartilage and a central “nucleus” that is more liquid-like and allows the IVD to function like a shock absorber. As we age, the

water content gradually “dries up” and the shock absorbing quality is lost.

As chiropractors, we address OA (DJD) and DDD with a number of HIGHLY EFFECTIVE treatments but most important (in many cases) is the use of spinal manipulation or adjustments. “Exercising the joint” with manipulation and mobilization reduces the tightness and stiffness associated with OA and DDD. Exercises are also important and can give the OA/DDD patient a way of controlling this condition on their own. Diet, activity modification/encouragement, and periodic adjustments help a lot!

The “Aging” Lower Back – Part 2

A unique condition associated with OA and DDD is called “spinal stenosis” (SS). Stenosis means “narrowing,” and it applies to two locations in the spine: 1) The holes through which the nerves in our neck and back exit out of the sides of the spine (called “intervertebral foramen” or, IVF); and, 2) The “spinal canal” through which the spinal cord travels. When narrowing occurs on the sides of the spine where the nerves exit, it’s called, “lateral spinal stenosis.” When the spinal canal narrows, it’s called “central spinal stenosis.”

Our spinal cord starts up in the neck as an extension off the brain stem and usually ends at the junction between the middle and lower back (around T12/L1) with the “cauda equina” (which literally means, “horses tail”) and extends downward. The cauda equina is made up of many nerves that travel down and exit out the sides of the lumbar spine (through the IVFs) and sacrum (tail bone) and transfer information (motor and sensory) to and from our legs and brain. When the size of the canal through which these nerves travel close down or narrow enough, sufferers will initially start feeling vague symptoms of leg heaviness or fatigue after walking for 30 or more minutes. As years pass and the IVFs or central canal become gradually more narrow, it may get to the point where a person can only walk a short distance because their legs, “…just won’t move.”

A classic complaint of SS is only being able to walk for four to five minutes prior to needing to sit down for 30 seconds to a few minutes (usually five minutes at the most) after which time the leg complaints resolve and the process repeats itself. When the nerves are compressed in these tight canals and the legs become heavy and hard to move, the term, “neurogenic claudication” is used. Another “classic” finding of SS is that RELIEF occurs when the patient bends forward, such as on a grocery cart or, simply stopping and bending over can be immediately relieving in many cases.

Chiropractic adjustments and other techniques are often very helpful in these cases if it is not too far advanced. The good news is that it usually helps, so prior to considering surgery or injections for this, give chiropractic a try – it’s less invasive and safer. We can always refer you to the next step if the condition becomes too advanced and/or if the results become less satisfying.

Compression fractures are another common cause of back pain in the elderly population. They’re often caused by minor trauma in the presence of poor bone density (osteoporosis) which accounts for about 700,000

of the 1.5 million osteoporotic fractures. Interestingly, many patients do not know what they did to cause these fractures so only 25-30% actually go to doctors and have this positively diagnosed (by x-ray). Treatment varies depending on what the percentage of fracture occurred (a little vs. a lot), and in unstable cases, a procedure called kyphoplasty (where cement is injected into the collapsed vertebral body) may be appropriate. As chiropractors, we can help this population by offering nutritional counseling to improve bone density and often provide symptomatic relief with adjustments (low force types) and other modalities.

Low Back “ON-THE-GO” Exercises (Part 1)

Low back pain (LBP) is a reality in most of our lives at one point or another. It can range from being a “nag” to being totally disabling.

Let’s look at some exercises for the low back that can be done from a SITTING position so that they can be:

1) Performed in public (without drawing too much attention) and

2) Repeated every one to two hours with the objective to AVOID LBP from gradually getting out of control (STOP the “vicious cycle” so LBP stays “self-managed”).

RULES:

1) DON’T do any exercise that creates SHARP pain;

2) Stay within “reasonable” pain boundaries;

3) DO these multiple times a day WHEN you feel tight, stiff, sore (take 10-30 sec. every hour rather than 15 min. twice a day).

SITTING LOW BACK EXERCISE OPTIONS:

SITTING BEND OVERS:

1) Slowly bend forward from a seated position and attempt to reach the floor;

2) Spread the knees as needed to allow for a full range of motion;

3) Hold for 3-10 seconds or until it feels “loose.”

4) Do the opposite – sit and arch your low back as far back as is comfortable. Repeat frequently for short hold-times – make it “fit” your time limitations/schedule!

SITTING HIP / BACK STRETCH:

1) Cross your leg;

2) Raise the knee to the opposite shoulder;

3) Arch the lower back until you feel an increase stretch in your buttocks;

4) Twist your trunk to the side the knee is raised;

5) Move your knee up/down and around to “feel” for the tightest “knots” and “work” them loose;

6) Modify by bending forward

7) REPEAT on the opposite side.

SITTING TRUNK ROTATIONS:

1) Slowly twist your shoulders and trunk to one side while keeping your knees straight;

2) Reach back and pull for additional stretch if comfortable;

3) Hold for 3-10 seconds or, until it feels “loose;”

4) REPEAT on the opposite side.

Remember, DO these MANY times a day (at least once every hour).

Low Back “ON-THE-GO” Exercises (Part 2)

Low back pain (LBP) is a reality in most of our lives at one point or another. It can range from being a “nag” to being totally disabling.

Let’s look at some exercises for the low back that can be done from a STANDING position so that they can be:

1) Performed in public (without drawing too much attention) and

2) Repeated every one to two hours with the objective to AVOID LBP from gradually getting out of control (STOP the “vicious cycle” so LBP stays “self-managed”).

RULES:

1) DON’T do any exercise that creates SHARP pain;

2) Stay within “reasonable” pain boundaries;

3) DO these multiple times a day WHEN you feel tight, stiff, sore (take 10-30 sec. every hour rather than 15 min. twice a day).

STANDING LOW BACK EXERCISE OPTIONS:

STANDING HAMSTRING / GROIN STRETCH:

1) Place your heel on a chair/bench.

2) Arch your low back until you feel a “draw” or pull in the back of the leg.

3) Bend your ankle towards you – feel the pull in your calf.

4) If needed, bend forwards or bend the support leg knee for additional stretch.

5) Hold for 3-10 seconds or until it feels loose.

6) ROTATE your body to the opposite side until you feel the pull in your groin and hold 3-10 sec.

7) Switch legs!

STANDING BACK EXTENSIONS:

1) Place the backs of your hands on your low back.

2) Slowly arch the lower back over your hands – stop if you feel pinch/ sharp pain.

3) Release the pressure and re-apply multiple times.

4) Hold for 3-10 seconds or, until it feels loose.

5) REVERSE and bend over to touch your toes and hold until you feel loose.

STANDING HIP FLEXOR STRETCH:

1) Stand straddled with one leg behind the other.

2) Rotate your back leg hip forwards (try to line up the left with the right so the pelvis is square).

3) Tuck in your pelvis (flatten the curve in the low back).

4) Bend backwards until the pull in the groin increases.

5) Hold for 3-10 seconds or, until it feels “loose.”

6) REPEAT on the opposite side.

Remember, DO these MANY times a day (at least once every hour).

29 Best Travel Tips for Your Aching Back

Has anyone booked travel for spring break? Getting to your destination can be hard on your joints, muscles, and nerves.

Traveling requires us to use our bodies in ways we're not used to, such as hoisting luggage over our heads into the bin and yanking it off the moving baggage claim. It requires us to sit still for long periods, often in a cramped space.

No wonder people with back pain and other types of pain avoid travel whenever possible. To help you have as pleasant a trip as possible, here are a number of things others have tried and found to work well:

Be smart about luggage

1. Lift luggage in stages. Move slowly when lifting your luggage and break the action into smaller parts. For example, when lifting a bag into an overhead bin, it can first be lifted to the arm of the seat, then to the top of the seatback, and then into the bin in separate motions.

2. Never twist while lifting. This is a common cause of injury to the low back. Pivot with your feet so that your whole body moves instead of just twisting your back.

3. Better yet, avoid lifting. Ask a flight attendant for help. If you explain you have a back condition, you will be surprised how helpful the airline staff will often be. If your bags are small and light, it will be less of a burden to ask someone to help you.

4. Ship ahead. This is my favorite solution for luggage: just mail your essentials to your destination ahead of time. This way you avoid luggage entirely and can carry just one small bag onboard with you. No schlepping. No hassle. No pain.

5. Pack light. Use 2 or 3 smaller bags rather than one large, heavy bag, especially if you will have to lift the bags in or out of car trunks, off airport baggage carousels, into and out of overhead bins, etc.

6. Use a backpack. Do not sling a bag over one shoulder (unless it is a very light handbag). Use a good quality lightweight backpack. Use both straps. The generally recommended maximum weight of a backpack is 10-15% of your body weight and even less if you have a painful back.

Using a backpack has the added advantage of leaving your hands free to hold onto handrails on escalators, stairs, the boarding ramp, etc.

7. Get a prescription. If there's any chance you may run out of your medication while you're traveling, get a prescription from your doctor and bring it with you so that you can buy more when required. Remember that in foreign countries the medication that you usually take may have a completely different name.

8. Keep your medication with you. This may be completely obvious, but it's worth saying anyway. Make sure you keep all your medication with you in flight and do not check it in with luggage. Don't just bring the medication you think you'll need for the flight, as you and your luggage may get separated indefinitely, or your flight could get seriously delayed or be worse than expected.

9. Bring an OTC backup. As a backup, bring acetaminophen (such as Tylenol) and ibuprofen (such as Advil, Motrin or Nuprin). If your pain medicine runs out, these two can be taken together and have a powerful pain relieving effect. Neither requires a prescription. Of course, check with your doctor before doing this.

10. Keep medications in their containers. Don't put different medications into the same containers. Keep each type of medication in its prescription bottle. In some situations, you could be detained in security for traveling with pills that aren't in separate labeled containers.

Use easy pain relief tactics

1. Ice is key. There are many ways to make sure you have access to ice/cold to numb the lower back when traveling. The simplest is to bring extra Ziploc bags and whenever you need to, ask a flight attendant to fill it with ice for you. Place it between your lower back and the seat. Leave it on for 20 minutes to numb the lower back and repeat as needed. You can also use cold packs that are manually activated. If security will let you, bring a small gel ice pack on the airplane. Flight attendants will keep them in the fridge for you.

2. Heat helps too. There are disposable, portable hot packs that heat up after you open them, so you can bring them on your travels and open and apply them as needed. Commercial heat wraps, such as ThermaCare, incorporate heating units across the low back area of the band. Such types of heat wraps last for several hours, making them ideal to provide back comfort during lengthy travel. If you want to bring gel heating packs, first check with your airline to see if they're allowed past security.

3. OTC pain patch. Consider using a non-prescription pain patch, (such as the Bengay Pain Patch). It may reduce your need for pain medications. Of course, check with your doctor before using these patches.

4. TENS units. For some people, a TENS unit can reduce pain. Get a letter from your physicians or physical therapist explaining your condition and the need for the TENS unit and what it is, as this may be needed to help you through security or to provide information to the flight crew.

5. Consider muscle relaxants. Consider talking with your doctor about muscle relaxants that you can take before a plane trip. They may be helpful if you have a long plane ride ahead of you.

Actively seek help from the airlines

6. Get an aisle seat. Ask for an aisle seat out of medical necessity (stress medical necessity). It is easier to get into and out of an aisle seat, and it allows you to get up and move around the cabin more easily. Since back pain can't be seen, traveling with a letter from your doctor that explains your condition will help you get accommodations such as an aisle seat.

7. Get wheelchair assistance. Make sure the airline knows you are handicapped so they will wheel you around with a wheelchair. You won't have to carry your bags, walk to the gate, or stand while waiting in line at security. It is best to do this when you make the reservation. You just need to ask for wheelchair assistance to the plane door. Even if it is supposed to be just a short walk to the gate, remember that gates can change, there may be a lot of standing in line when going through security, and other issues may arise that would make a wheelchair worthwhile.

8. Ask for a row of seats. If the airplane isn't full, when booking see if you can get the last row of seats (which usually no one else wants). Then you can pull up the seat arms and lie down.

9. Recline. For many back conditions, sitting in a slightly reclined position is least stressful on the back. If this is the case, remember to check that your seat will recline when making your reservation and getting a seat assignment. Some seats in exit rows or at the back of the plane do not allow you to recline.

10. Stretch key muscles. Sitting for extended periods can cause stiffness and tension in the hamstrings (the muscles in the back of the thighs) and hip flexor muscles, which in turn puts added stress on the low back. Ask your doctor for a few safe hamstring and hip stretches you can do while traveling.

11. Pre-board. Make sure the gate agent knows you will need to pre-board. Conversely, if sitting for a moment longer than necessary will be unbearable, board last. If you do this, make sure your carry-on can fit beneath your seat, because if you board last the overhead bins might already be full. If you are worried about the overhead bins being full, ask if you can check your carry-on at the gate.

12. Consider a handicapped parking sticker. If you will be parking at the airport but have trouble walking very far, you can ask your doctor to fill out an application for a handicapped parking permit.

13. Avoid getting bumped. Due to overbooking, a practice that seems to be common lately, getting a seat assignment in advance can reduce the risk of getting bumped from your flight. If no seat assignment is given when you buy your airline tickets online, call the airline to get a seat assignment immediately. If you arrive at the ticket counter without a seat assignment on an overbooked flight, you probably will get bumped off the flight and be forced to take a later flight, which can be several hours or even one or two days later.

Sit with support

14. Fix the seat. Place a small rolled-up airline pillow, blanket, towel, or lumbar pillow between your back and the seat to support the natural inward curve of your lower back. You may also use commercial low back supports if you prefer.

Supporting the curve in your low back is especially important with many airplane seats, as they are often worn out and force your lower back to an unnatural, stressful position. If the bottom of the seat is concave from too much use, place a folded blanket on the seat.

15. Use your feet. Bottom-up leverage from your feet is also required to support your low back. While seated, your knees should be bent at a right angle. If your seat is too high, place your feet on something that can act as a firm footrest, like a book or box, to keep your knees at a right angle and avoid stressing the low back.

General advice

16. Bring a letter. Obtain a letter from your physician explaining your condition, medications, and treatment requirements. This can come in handy in many ways: when requesting an aisle seat, wheelchair assistance, getting your medications through security, requiring medical care while traveling, etc.

17. Drink water. Water circulates healing nutrients and oxygen throughout the body. Drink water frequently to help keep your pain at bay and to keep your body hydrated.

18. Get up and move. Sitting in one position for extended periods of time stiffens the back muscles, which can put stress on the spine. Get up to stretch and move around every 20 to 30 minutes if possible. Movement stimulates blood flow, and blood brings important nutrients and oxygen to your back, which reduces stiff muscles and helps curb inflammation. Movement also helps prevent blood clots from forming in the leg (called deep vein thrombosis), which is one of the most dangerous risks of sitting still for long periods.

19. Wear slip-on shoes. Wear high quality, comfortable supportive shoes if you will be walking distances through airports, train stations, etc. Slip-on shoes are easy to slip on and off without having to bend over when going through security.

I also advocate diversions to help keep the pain at bay, especially if traveling will be stressful for you. One option is to treat yourself to something special like a great new book or a movie during the flight. Another option is to do something for someone else (write a letter to an elderly relative or neighbor, write down memories of your children, etc.) to focus your mind elsewhere.

Happy travels!

What's Better for Neck Pain, Medication or Chiropractic?

Although both medication and chiropractic are utilized by neck pain sufferers, not everyone wants to or can take certain medications due to unwanted side effects. For those who aren't sure what to do, wouldn't it be nice if research was available that could answer the question posted above? Let's take a look!

When people have neck pain, they have options as to where they can go for care. Many seek treatment from their primary care physician (PCP). The PCP's approach to neck pain management usually results in a prescription that may include an anti-inflammatory drug (like ibuprofen or Naproxen), a muscle relaxant (like Flexeril / cyclobenzaprine), and/or a pain pill (like hydrocodone / Vicodin). The choice of which medication a PCP recommends hinges on the patient's presentation, patient preference (driven from advertisements or prior experiences), and/or the PCP's own preference.

Although it's becoming increasingly common to have a PCP refer a neck pain patient for chiropractic care, this still does not happen for all neck pain patients in spite of strong research supporting the significant benefits of spinal manipulation to treat neck pain.

One such study compared spinal manipulation, acupuncture, and anti-inflammatory medication with the objective of assessing the long-term benefits (at one year) of these three approaches in patients with chronic (>13 weeks) neck pain. The study randomly divided 115 patients into one of three groups that were all treated for nine weeks. Comparison at the one-year point showed that ONLY those who received spinal manipulation had maintained long-term benefits based on a review of seven main outcome measures.

The study concludes that for patients with chronic neck pain, spinal manipulation was the ONLY treatment that maintained a significant long-term (one-year) benefit after nine weeks of treatment!

In a 2012 study published in medical journal The Annals of Internal Medicine, 272 acute or sub-acute neck pain patients received one of three treatment approaches: medication, exercise with advice from a health care practitioner, or chiropractic care. Participants were treated for twelve weeks, with outcomes assessed at 2, 4, 8, 12, 26, and 52 weeks. The patients in the chiropractic care and exercise groups significantly outperformed the medication group at the 26-week point AND had more

than DOUBLE the likelihood of complete neck pain relief.

However, at the one-year point, ONLY the chiropractic group continued to demonstrate long-term benefits! The significant benefits achieved from both exercise and chiropractic treatments when compared with medication make sense as both address the cause of neck pain as opposed to only masking the symptoms.

With results of these studies showing acute, subacute, as well as chronic neck pain responding BEST to chiropractic care, it only makes sense to TRY THIS FIRST!

Neck Pain Causes and What To Do

We all know what it feels like to have limited neck motion, as most of us have had neck pain at some point in time. It makes doing simple things like backing up a car, rolling over in bed, reading, and watching TV difficult-to-impossible.

The goal of this article is to review some of the many causes of neck pain and what to do about it! Let's take a look at the various types of tissues that can generate pain:

MUSCLES: There are MANY layers of muscles in the neck. There are the very small, deep "intrinsic" muscles that are important for stability of the spine and fine, intricate movements while the larger outside "extrinsic" muscles are long and strong, allowing us to sustain stresses like playing football, rugby, hockey, or falling on the ice. Long car drives/rides, computer work, studying/reading, or having a conversation with someone not sitting directly in front of you are just a few examples of how these muscles can experience overuse that can generate neck pain!

LIGAMENTS: These are tough, non-stretching tissues that hold bone to bone and can tear in trauma like whiplash, while playing sports, or in a fall. Because ligaments are important in keeping our joints stable, disrupted ligaments can lead to excessive "play" in a joint and can wear down the cartilage or the smooth, silky covering at the ends of bones, which can lead to premature osteoarthritis (OA) – the "wear and tear" kind that everyone gets eventually.

WORN JOINTS: There is something called "the natural history of degeneration" that naturally occurs if we live long enough. As previously discussed, ligament tearing leads to instability of the involved joint(s), and excessive motion in the joint leads to OA. In the neck, there are two sets of small joints between six of the seven vertebrae called facet joints and uncinate processes that are vulnerable for OA and are frequent pain generators.

DISK INJURY: The disks rest between the big vertebral bodies and act as shock absorbers. They are like jelly donuts, and when the disk's tough outer layers tear, the jelly can leak out and this may or may not hurt, depending on the direction, the amount of the leaked out "jelly," and if the "jelly" pinches pain-sensitive tissues. A "herniated disk" is the most common cause for a pinched nerve (see next entry).

NERVE COMPRESSION: The nerves in the neck travel into the arms,

and nerve compression or pinching can result in numbness/tingling/burning pain in the arm and/or hand with or without weakness. Each nerve has a different role, and by mapping the numbness area and testing reflexes and muscle strength, it can help your doctor identify the specific nerve that is injured.

DISEASES: Though significantly less common, neck pain can arise from certain diseases such as rheumatoid arthritis, meningitis, and/or cancer. When these are suspect, blood tests and special tests such as bone scan, CT/MRI, and/or biopsy can help to specifically identify the condition.

WHAT TO DO: Make an appointment and your doctor of chiropractic will perform a history and physical examination, to help determine what is generating your pain. Once the diagnosis is understood, he or she will put together a treatment plan for you. This usually includes procedures done in the office as well as those that they will teach you how to do at home and/or work to help you manage your neck pain back and return to normal activities as quickly as possible!

Chiropractic Management of Neck Pain (Part 1)

Neck pain is a very common condition that drives many patients to seek chiropractic care. Treatment planning typically includes four primary goals:

1) Pain Management;

2) Structural Realignment;

3) Functional Restoration; and

4) Maintenance / Prevention.

1) **PAIN MANAGEMENT**: Getting rid of pain is the primary focus of ALL patients in the early stages of a neck injury. If we use the acronym "PRICE" (Protect, Rest, Ice, Compress, and Elevate), the first three apply when it comes to neck pain. We "protect" our neck by avoiding or changing the way we go about doing things such as our sleep position (this often prompts a "proper pillow discussion"), adjusting the outside rearview mirrors of our car (if you flair the outside mirrors outwards, it opens up the "blind spots" and may prevent a collision, especially if you cannot rotate your neck very far), hold your cell phone eye level so you are not looking down for hours, and modifying other ADLs (activities of daily living).

The bottom line is: if an activity creates a sharp pain sensation, it is a "warning sign" to modify or stop WHATEVER it is that you're doing. Wearing a cervical collar for a SHORT duration of time can qualify for both "Protect" and "Rest." However the collar is NOT a good solution for any length of time. Try resting your neck on a pillow when reading or watching TV, as it allows the neck muscles to rest. A cervical traction device can help reduce muscle spasm, improves flexibility (range of motion), and reduce pain. Alternating "Ice" and heat can be even more effective, as it "PUMPS" out inflammation or swelling.

Heat is also a good natural muscle relaxant and ice reduces swelling (inflammation), both of which can help reduce pain. There really is no hard and fast rule as to how long you should continue using ice (days, weeks, or months) – if it helps, use it. However, heat can worsen a condition if it's applied too soon or too long. Anti-inflammatory herbs like ginger, turmeric, boswellia, and others are very effective and actually may be BETTER than ibuprofen, Aleve, or aspirin. Recent studies indicate that there may be a delay in healing when over-the-counter pain medications

are used, and the recommendation is to AVOID these drugs so healing won't be delayed!

2) **STRUCTURAL REALIGNMENT**: The goal here is to improve (to the best of our ability) faulty bony misalignments that frequently exist in the neck, upper, middle back as well as the low back, as all can contribute to neck pain. This is also a great long-term goal, as it may help PREVENT future episodes of neck pain.

There is a natural process of aging called osteoarthritis that none of us can avoid, but allowing faulty curves and bony misalignments to persist may actually accelerate this degenerative process! Your Chiropractor may have you lie on a tightly rolled up towel (a frozen water bottle often feels even better) placed behind the neck and when it's comfortable, performing this on the edge of the bed is a great way to re-educate a reversed cervical curve (and, it feels GREAT!). Even a heel lift in the shoe of a short leg can help the neck! Spinal manipulation, manual mobilization techniques, and trained exercises all address this treatment goal quite effectively. It is important to mention here that many Chiropractic techniques no longer require a "manual manipulation" of the neck. Some patients prefer the NON-Force, specific, gentle adjusting as it is effective for fast pain relief in most cases.

Chiropractic Management of Neck Pain (Part 2)

3) **FUNCTIONAL RESTORATION**: Restoring function basically allows the patient to return to their pre-injury activities of daily living, which is the ultimate goal when managing all conditions! In order for this to happen,it is necessary to have the first two goals accomplished, and the primary "tool" that we use to accomplish this goal is exercise training. There are several options to determine which exercise is most needed. A physical performance test can be done, which consists of a series of exercise-like maneuvers that we measure with an instrument that measures degrees (for range of motion), count repetitions (when testing for strength), or count time – usually in seconds (when testing for endurance, balance, and aerobic capacity). We then can compare you to the "norms" that have been published to see if you need help in a particular area. This also establishes a "baseline" or starting point to compare a month later after you've performed the proper exercises designed to improve that "failed test." The three primary goals of exercises include stretching, strengthening, and restoring coordination.

STRETCH: A very effective exercise is performed by bending the head to the right, reaching over with the right hand, and gently pulling on the head until a good stretch is felt on the left side of the neck. Reaching down with the opposite (left) arm (as if there's a dollar bill on the ground and you just can't quite reach it) enhances the stretch.

While stretching, tuck in your chin, drop your head forwards and backwards, and turn your head a little from side to side to feel for different tight muscle fibers. Continue this stretch for 10-20 seconds or long enough to feel that you've accomplished a good stretch. Then, repeat this on the opposite side. This can be done sitting or standing, and most importantly, do this multiple times a day, especially when you feel tight – like at work, for example. There are other stretches but this actually combines four different exercises into one, so it's often enough!

STRENGTHENING: Place your hand against the side of your head and push your head into your hand using about 10-20% maximum e ort (not much pressure!). First, allow your head "to win" by moving your head further until a tight stretch is felt. Second, let your hand "win" by moving the head to the opposite direction while maintaining pressure against your hand. Allow the head to bend ALL THE WAY to the end-range and repeat three times in each direction.

COORDINATION: Motor control, balance, and coordination are further enhanced by balancing on one foot with eyes open AND closed. Stand near a wall to avoid falling!

4. **PREVENTION**: Keep exercising and eat right! Consider joining a health club, working out with a friend, riding a bike, walking, and/or swimming. You choose!

Neck Pain – Drugs or Chiropractic?

When you have neck pain, do you instinctively reach for that bottle of ibuprofen or Tylenol? If so, is that the best option? Who can we trust for the answer? Since between 10-20% of the population suffer from chronic or persistent neck pain, this is a VERY IMPORTANT question!

If we look at the literature published in peer reviewed journals by authors who have no financial incentives in the outcome of the study, we can find accurate, non-biased information to answer this question. So, let's start with a landmark study published in SPINE, a leading medical journal that reviewed ALL the publications printed between 2000 and 2010 on neck pain – a total of 32,000 articles with over 25,000 hours of review. (Haldeman S, Carroll L, Cassidy JD, et. al. The Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders: Executive Summary. Spine 2008,33(4S):S5-S7). This resulted in a 220 page comprehensive report from a multidisciplinary International Task Force involving seven years of work from 50+ researchers from 19 different clinical scientific disciplines worldwide looking at the MOST EFFECTIVE approaches available (both surgical and non-surgical) for patients suffering from neck pain.

Highlights from the study include the following:

1) Manipulation/mobilization are safe, effective, and appropriate treatment approaches for most patients with disabling neck pain (both traumatic and non-traumatic).

2) Neck pain patients should be informed of ALL effective treatment options so they can choose effectively.

3) The very rare risk of vertebrobasilar artery (VBI) stroke is NO DIFFERENT when comparing patients consulting a doctor of chiropractic verses a primary care medical physician as the stroke event, in most cases, has occurred prior to the visit.

4) The treatment option(s) available should consider the potential side effects and personal preferences of the patient.

5) For most neck pain patients, treatments that were found to be safe and effective include manipulation, mobilization, exercise, education, acupuncture, analgesics, massage, and low-level laser therapy.

6) For non-neurological neck pain, ineffective treatments (poor choices)

include surgery, collars, TENS (transcutaneous electrical nerve stimulation), most injection therapies (including corticosteroid injections and rhizotomy).

7) For neck pain WITH nerve compression, there is very little research published on non-surgical care. Here, in the absence of serious pathology or progressive neurological loss, start with the most conservative (like chiropractic!) followed by more invasive treatments like epidural steroid injections (ESI's) and surgery.

8) Whiplash patients should follow similar guidelines as described above.

9) Some benefit from the chosen treatment should be seen within the first two to four weeks of care.

10) Be realistic about treatment goals – neck pain is often recurrent (comes and goes) as most people (50-80%) will NOT experience complete resolution of symptoms and will have neck pain again one to five years later.

Another study published in The Annals of Internal Medicine ("Spinal Manipulation, Medication, or Home Exercise with Advice for Acute and Subacute Neck Pain: A Randomized Trial. 3 January 2012, Vol.156, No. 1, Part 1) reports similar information favoring spinal manipulation and exercise, as these were found to be SUPERIOR to medication use. Another study reported excellent results for 27 patients utilizing chiropractic care who had herniated cervical disks WITH spinal cord compression verified on MRI (70% improved after an average of 12 visits)! TRY CHIROPRACTIC FIRST!!!

Chiropractic & Exercise vs. OTC Medication for Neck Pain?

"Boy, my neck is killing me! Honey, where is the ibuprofen?" Isn't this the FIRST thing people think of when they have an ache or pain? The general public does NOT usually think, "….boy, do I need to see my chiropractor – my neck is killing me!" So, the question of the month is, which one is better, chiropractic or over-the-counter (OTC) medication? Let's take a look.

Though this question has been discussed for years (just search: "chiropractic vs. NSAIDs"), a recent study looked specifically at this question, which will be the main focus of this Health Update. The study points out that it has been estimated that 75% of Americans will experience neck pain at some point in their life. For years, spinal manipulation has been criticized as being ineffective or providing limited benefits. Meanwhile, ads on TV, in magazines, and almost everywhere you look, show someone reaching for aspirin, ibuprofen, or even narcotics to manage their pain.

However, this new research clearly supports that seeing a chiropractor and/or engaging in light exercise can bring neck pain relief more effectively than relying on pain medications! Researchers even found that the benefits of chiropractic adjustments were still favored A YEAR LATER when comparing the differences between the spinal manipulation and medication treated groups! Moderate acute neck pain is one of the most frequent complaints prompting appointments at primary care/medical clinics and is estimated to account for millions of doctor visits per year. In some cases, pain and stiffness occurs without a known cause and there is no "standard" medical treatment. Though physical therapy, pain medication, and chiropractic have all been utilized for neck pain, until now no one had compared the benefits of each in a single study.

The study consisted of 272 neck pain subjects split up into three groups:

1) Chiropractic group (approximately 20-minute treatments an average of 15 times);

2) Pain medication group (meds included acetaminophen, and in some cases stronger prescription meds including narcotics and muscle relaxants);

3) Physical Therapy group (consisting of meeting twice and receiving advice and exercise instruction at 5-10 repetitions up to eight times a day).

At the end of three months, the chiropractic and exercise group did significantly better than those who took drugs. Approximately 57% of those receiving chiropractic management and 48% of those who did the exercises reported at least 75% reduction in pain vs. 33% of people in the medication group.

A year after the treatment period ended, the numbers decreased to 53% in the chiropractic and exercise groups, compared to 38% in pain medication group. The chiropractic group received the highest scores in patient satisfaction at all time points. An interesting downside noted in the medication study group was that the subjects had to use a progressively greater amount of medication at a progressively increased frequency to manage their pain.

Stomach trouble is the most common side effect of NSAIDs (leading to ulcers) as well as liver and kidney problems. Another interesting finding was that the subjects in the medication treated group felt less empowered, less active, and less in control over their own condition compared with those in the other two groups.

This study points out the benefits of two treatment approaches that chiropractors commonly utilize: spinal manipulation and exercise training/ advice!

Neck Pain and Cervical Disk Herniation

Neck pain can arise from many sources. There are ligaments that hold bones to other bones that are non-elastic and very strong. When injured, the term, “sprain” is applied. The muscle and/or its attachment (the tendon) can tear as well, which is called a “strain.” But, what is it that people refer to when they say, “…I slipped a disk in my neck!”?

The disks lay between the vertebrae in the front of the spine, and they are part of the primary support and shock absorbing system of our neck and back. There are 6 disks in the neck, 12 in the mid-back and 5 in the low back for a total of 23. The disks in the low back are big, like the vertebral bodies they lie between, and get progressively smaller as they go up the spine towards the head. When we bend our neck forwards, the disk compresses, and opens wider when we look up. It forms a wedge shape when we side bend left or right, and it twists when we rotate or turn the head.

The terms, “…a slipped disk, a herniated disk, a ruptured disk, a bulging disk” (and more), all mean something similar, if not exactly the same thing. A central part of the disk is liquid-like and can herniate in any direction. When it does, it can create pain IF it pinches something, or it may be painless if it doesn’t. In fact, since the invention of the CAT scan and MRI, many (“normal”) people have been found on the scan to have some type of disk “derangement” (alteration of the normal integrity of the disk), with 50%+ showing bulging disk(s) and 21% showing frank herniations WITH NO PAIN AT ALL! So, in the absence of shooting pain down an arm from the neck, or when there is no numbness or weakness in the arm, why order an MRI? It may show bulges or herniations that are not “clinically” important, and may falsely lead a doctor to recommend surgery when it’s not needed.

There are “KEY” findings in the history and examination that leads us to the diagnosis of a cervical disk injury. From the history, the disk patient often has arm pain, numbness, and/or muscle weakness that follows a specific pathway, such as numbness to the thumb/index finger (C6 nerve), middle of the hand & 3rd finger (C7) or to the pinky & ring finger (C8). Certain positions, such as looking up, usually irritate the neck and arm, and bending the head forward relieves it. Another unique history and exam finding is if the patient finds relief by putting the arm up and over their head. Similarly, letting the arm hang down is often associated with irritation. Other examination findings unique to a cervical disk injury include reproducing the arm pain by placing the head in certain positions

such as bending the head back and to the side simultaneously. Another is compressing the head into the shoulders. When lifting up on the head (traction), relief of arm pain is common. The neurological exam will usually show a reduction of sensation when we gently poke them with a sharp object, and/or they may have weakness when compared to the opposite side.

Chiropractic treatments can be very successful in resolving cervical disk herniation signs and symptoms, and should CERTAINLY be tried before agreeing to a surgical correction. Often, the surgeon will recommend a fusion of 2 or more neck vertebrae, sometimes with a metal plate in the front of the spine. This increases the load on either side of the fusion and can create problems above and below the fusion. Trust me, try chiropractic first. You'll be glad you did!

Neck Pain Treatment Options

Neck pain is a very common problem. In fact, 2/3rds of the population will have neck pain at some point in life. It can arise from stress, lack of sleep, prolonged postures (such as reading or driving), sports injuries, whiplash injuries, arthritis, referred pain from upper back problems, or even from sinusitis! Rarely, it can be caused from dangerous problems including referred pain during a heart attack, carotid or vertebral artery injuries, or head or neck cancer, but these, as previously stated, are very uncommon. However, since you don't know why your neck hurts, it's very important to have your neck pain properly evaluated so the cause can be properly treated and not just covered up from the use of pain killers!

Barring the dangerous causes of neck pain listed above, treatment methods vary depending on whom you elect to consult. Classically, if you see your primary care physician, pharmaceutical care is usually the approach. Medications can be directed at reducing pain (Tylenol, or one of many prescription "pain killers"), at reducing inflammation and pain (Aspirin, Ibuprofen, Aleve, etc.), to reduce muscle spasms (like muscle relaxers) or, medications may be directed to reduce depression, anxiety, or the like. When a sinus infection affects the 2 deep sinuses (ethmoid and sphenoid sinuses which are located deep in the head), the referred pain is directed to the back of the head and neck. Here, an antibiotic may be needed and/or something specifically directed at allergies when present. In general, in cases that do not respond to usual chiropractic care, co-management with the primary care physician is a good option.

However, the good news is that chiropractic care usually works well, and the need for medication can be avoided since the side effects of medication can sometimes be worse than the benefits. Recently, The Bone and Joint Decade Task Force on Neck Pain published arguably the best review of research published between 2000 and 2010 regarding neck pain treatment approaches. They concluded that spinal manipulation and mobilization are highly effective for many causes of neck pain, especially when arising from the muscles and joints – the most common cause.

Therefore it would seem logical to consult with a Chiropractor FIRST since manipulation and mobilization are so effective and safe. When we add neck exercises, the results are even better, according to some studies. As chiropractors, we will often use different modalities including electric stimulation, ultrasound, hot and/or cold (which are usually given as a good home-applied remedy), and others. In particular, low level laser therapy (LLLT) has been shown, "…to reduce pain immediately after treatment in acute neck pain and up to 22 weeks after completion of

treatment in patients with chronic neck pain" [Lancet, 2009; 374(9705)]. LLLT is a commonly used modality by chiropractors and when combined with spinal manipulation, the results can be even faster! We will also evaluate your posture, body mechanics, and consider "ergonomic" or work station problems and offer recommendations for improving your work environment. We also frequently utilize anti-inflammatory nutrients including vitamins, minerals, herbs, and more to avoid the negative side effects to the stomach, liver, and kidney negative that can result from using non-steroidal anti-inflammatory drugs (NSAIDs) like aspirin, ibuprofen, or Aleve. Make chiropractic your FIRST choice when neck pain strikes, NOT last resort!

Neck Pain and Chiropractic

Neck pain represents a major problem for people throughout the world with considerable negative impact on individuals, families, communities, health care systems, and businesses. Up to 70% of the general population will have neck pain at some point in their life. Recovery within the year from neck pain ranges between 33% and 65%, AND relapses are common throughout the life time of the neck pain patient. Generally, neck pain is more common in women, higher in high-income countries, and higher in urban regions. The greatest risk of developing neck pain occurs between 35 and 49 years of age. Since neck pain, very similar to low back pain, is very common and likely to recur over and over again, the question is, what is the best course of action regarding treatment?

A recent study on neck pain patients compared the effectiveness of manual therapy performed by a chiropractor, physical therapy performed by a physical therapist (PT), and medical care performed by medical physician (MD). The success rate determined at the seventh week was TWO TIMES BETTER for the manual therapy/chiropractic group (68.3%) compared to the medical care group. Those receiving manual therapy also had fewer absences from work compared to both the medical and PT treated groups.

Lastly, both the manual therapy and PT groups used less pain relief medication compared to the medically treated group. Another study looked at the multiple approaches that chiropractors use for treating patients with neck pain to determine the “best” approach a chiropractor can use. They reported 94% had improvement or less neck pain after just one treatment when the mid-back (thoracic spine) was also adjusted. Similarly, after receiving two treatments over a one week time frame, the group receiving midback adjustments (vs. the group who did not) reported lower pain and disability scores.

A similar study concluded that the best results occurred when the neck, upper back/lower neck, and mid-back were adjusted. This group, when compared to neck adjustments alone, reported greater reductions in disability scores. Thus, having the cervical spine, upper back, and mid-back all adjusted appears to yield quicker, more satisfying results than neck adjustments alone.

What about the role of exercise in the management of neck pain patients? In November 2012, a systematic review of manual therapies for nonspecific neck pain reported that the addition of neck exercises to a treatment plan provided more benefits than spinal manipulation alone. Similarly, in September 2012 (The Annals of Internal Medicine),

chiropractic adjustments were compared against exercise and pain medication treatment groups involving 272 patients tracked over a one-year time frame after a 12-week treatment. Both the chiropractic and exercise groups experienced the most significant pain reduction when compared to the medication treated group with more than double the likelihood of complete pain relief. The chiropractic and exercise groups also had the best short and long term results, but ONLY the chiropractic group found the benefits to last a year or more. The authors (Bronfort, et. al) reported the success of chiropractic treatment stems from its ability to address the CAUSE of the problem rather than simply addressing the symptoms!

Neck Pain – Chiropractic and the Older Patient

People of all ages suffer from neck pain, and many frequently turn to chiropractors for care because it's been found to be one of the most effective and efficient forms of treatment available, and it carries minimal side effects! It has been projected that by 2030, nearly one in five US residents will be 65 or older. Currently, approximately 14% of the patients treated by chiropractors are 65 or older, making it one of the most frequently utilized forms of complementary and alternative care used by older adults. What kind of care can a senior citizen expect when seeking treatment from a chiropractor? Let's take a look!

Musculoskeletal pain, or pain in the neck, back, arms, and/or legs, drives the majority of elderly patients to chiropractors. While low back and neck pain are the most common complaints, it's not unusual for patients to also have one or two other conditions (or more) that they did NOT know chiropractic care could help. In fact, common "goals" for managing every patient (not just the elderly) include services related to patient assessment, maintenance of health, and prevention of illness, in addition to treatment of illness or injury. Common chiropractic treatment approaches include spinal manipulation and/or mobilization, nutritional counseling, physical activity/exercise, and (especially important for the elderly population) fall prevention.

We will now focus on neck pain as it relates to the elderly population and the various chiropractic management strategies that might be encountered by an elderly patient. Common reasons patients present regarding the neck include limited movement, stiffness, and pain. Neck pain can also interfere with sleep, as finding a comfortable position in bed can be quite challenging! Lifting, carrying, and playing with grandchildren is a very common issue for either causing a new complaint or irritating an existing one. Neck pain may also interfere with reaching and lifting. Thus, activities like yard or garden work may become more difficult and less enjoyable. Neck pain is often associated with headaches, which can make daily tasks even more challenging.

When an elderly patient visits a chiropractor for the first time or for a new complaint, he/she can expect to fill out some initial paperwork, as well as provide a history of the main complaint and any lesser complaints. This may also include providing a family and medical history. The examination usually includes general observations, palpating or feeling for muscle tightness, tenderness, warm/cool, range of spinal motion (neck, back, extremities), orthopedic tests, neurological tests, and possibly x-rays.

Treatment of the neck may include massage or mobilization to loosen up the neck, manipulation to free up restricted joint motion, and even exercise training. The goal of treatment is to improve neck motion, activity tolerance, and quality of life (less pain, improved sleep, etc.). So, whether you are 10, 20, 50, 70, or 90 years old, give chiropractic a chance to help you manage your neck pain!

Neck Pain: Where Is It Coming From?

Neck pain can arise from a number of different tissues in the neck. Quite often, pain is generated from the small joints in the back of the vertebra (called facets). Pain can also arise from disk related conditions where the liquid-like center part of the disk works its way out through cracks and tears in the thicker outer part of the disk and can press on nerves producing numbness and/or weakness in the arm. It is possible to “sprain” the neck in car accidents, sports injuries, or from slips and falls. This is where ligaments tear and lose their stability resulting in excessive sliding back and forth of the vertebrae during neck movements.

When muscles or their tendon attachments to bone are injured, these injuries are called “strains” and pain can occur wherever the muscle is torn. There is also referred pain. Here, the injury is at a distance away from where the pain is felt. A classic referred pain pattern is shoulder blade pain when a disk in the neck herniates. Let’s take a closer look at two conditions we often diagnose and treat as chiropractors:

Spinal Stenosis: This occurs when the canals in the spine narrow to the point of pinching the spinal cord in the trefoil shaped central canal (called “central stenosis”) or when the nerve roots get pinched in the lateral recesses (called lateral recess stenosis). This can occur from arthritis in the facet joints, disk bulging or herniations, thickening of ligaments, shifting of one vertebra over another, aging, heredity (being born with a narrowed canal), and/or from tumors.

Usually, combinations of several of the above occur simultaneously. When this is present in the neck, it can be more serious compared to stenosis in the low back as the spinal cord ends at the upper part of the low back (T12 level) so only the nerves get pinched. Stenosis in the neck however pinches the spinal cord itself. Symptoms can include pain in one or both arms, but it’s more dangerous when leg pain, numbness, or weakness occur (called myelopathy). Rarely, loss of bowel or bladder control can occur which is then considered a “medical emergency” and requires prompt surgery.

Cervical Disk Herniation: As previously stated, the liquid-like center of the disk can work its way through cracks and tears in the outer layer of the disk and press on a nerve resulting in numbness, pain, and/or weakness in the arm. The classic presentation is the patient finding relief by holding the arm over the head, as this puts slack in the nerve and it hurts less in this position.

The position of the head also makes a difference as looking up usually hurts more and can increase the arm pain/numbness while looking down reduces the symptoms. We will carefully test your upper extremity neurological functions (reflexes, muscle strength, and sensation as each nerve performs a different function in the arm), and we can tell you which nerve is pinched after a careful examination. This condition can lead to surgery so please take this seriously.

The good news is that chiropractic care can manage both spinal stenosis and cervical disk herniations BEFORE they reach the point of requiring surgery. So make chiropractic your FIRST choice when neck pain occurs!

Neck Pain Treatment Options

Neck pain is a very common problem. In fact, 2/3rds of the population will have neck pain at some point in life. It can arise from stress, lack of sleep, prolonged postures (such as reading or driving), sports injuries, whiplash injuries, arthritis, referred pain from upper back problems, or even from sinusitis! Rarely, it can be caused from dangerous problems including referred pain during a heart attack, carotid or vertebral artery injuries, or head or neck cancer, but these, as previously stated, are very uncommon. However, since you don't know why your neck hurts, it's very important to have your neck pain properly evaluated so the cause can be properly treated and not just covered up from the use of pain killers!

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When a sinus infection affects the 2 deep sinuses (ethmoid and sphenoid sinuses which are located deep in the head), the referred pain is directed to the back of the head and neck. Here, an antibiotic may be needed and/or something specifically directed at allergies when present. In general, in cases that do not respond to usual chiropractic care, co-management with the primary care physician is a good option.

However, the good news is that chiropractic care usually works well, and the need for medication can be avoided since the side effects of medication can sometimes be worse than the benefits. Recently, The Bone and Joint Decade Task Force on Neck Pain published arguably the best review of research published between 2000 and 2010 regarding neck pain treatment approaches. They concluded that spinal manipulation and mobilization are highly effective for many causes of neck pain, especially when arising from the muscles and joints – the most common cause.

Therefore it would seem logical to consult with a Chiropractor FIRST since manipulation and mobilization are so effective and safe. When we add neck exercises, the results are even better, according to some studies. As chiropractors, we will often use different modalities including electric stimulation, ultrasound, hot and/or cold (which are usually given as a good home-applied remedy), and others. In particular, low level

laser therapy (LLLT) has been shown, "…to reduce pain immediately after treatment in acute neck pain and up to 22 weeks after completion of treatment in patients with chronic neck pain" [Lancet, 2009; 374(9705)]. LLLT is a commonly used modality by chiropractors and when combined with spinal manipulation, the results can be even faster! We will also evaluate your posture, body mechanics, and consider "ergonomic" or work station problems and offer recommendations for improving your work environment.

We also frequently utilize anti-inflammatory nutrients including vitamins, minerals, herbs, and more to avoid the negative side effects to the stomach, liver, and kidney negative that can result from using non-steroidal anti-inflammatory drugs (NSAIDs) like aspirin, ibuprofen, or Aleve. Make chiropractic your FIRST choice when neck pain strikes, NOT last resort!

Neck Pain and Cervical Disk Herniation

Neck pain can arise from many sources. There are ligaments that hold bones to other bones that are non-elastic and very strong. When injured, the term, “sprain” is applied. The muscle and/or its attachment (the tendon) can tear as well, which is called a “strain.” But, what is it that people refer to when they say, “…I slipped a disk in my neck!”?

The disks lay between the vertebrae in the front of the spine, and they are part of the primary support and shock absorbing system of our neck and back. There are 6 disks in the neck, 12 in the mid-back and 5 in the low back for a total of 23. The disks in the low back are big, like the vertebral bodies they lie between, and get progressively smaller as they go up the spine towards the head. When we bend our neck forwards, the disk compresses, and opens wider when we look up. It forms a wedge shape when we side bend left or right, and it twists when we rotate or turn the head.

The terms, “…a slipped disk, a herniated disk, a ruptured disk, a bulging disk” (and more), all mean something similar, if not exactly the same thing. A central part of the disk is liquid-like and can herniate in any direction. When it does, it can create pain IF it pinches something, or it may be painless if it doesn’t. In fact, since the invention of the CAT scan and MRI, many (“normal”) people have been found on the scan to have some type of disk “derangement” (alteration of the normal integrity of the disk), with 50%+ showing bulging disk(s) and 21% showing frank herniations WITH NO PAIN AT ALL! So, in the absence of shooting pain down an arm from the neck, or when there is no numbness or weakness in the arm, why order an MRI? It may show bulges or herniations that are not “clinically” important, and may falsely lead a doctor to recommend surgery when it’s not needed.

There are “KEY” findings in the history and examination that leads us to the diagnosis of a cervical disk injury. From the history, the disk patient often has arm pain, numbness, and/or muscle weakness that follows a specific pathway, such as numbness to the thumb/index finger (C6 nerve), middle of the hand & 3rd finger (C7) or to the pinky & ring finger (C8). Certain positions, such as looking up, usually irritate the neck and arm, and bending the head forward relieves it. Another unique history and exam finding is if the patient finds relief by putting the arm up and over their head.

Similarly, letting the arm hang down is often associated with irritation.

Other examination findings unique to a cervical disk injury include reproducing the arm pain by placing the head in certain positions such as bending the head back and to the side simultaneously. Another is compressing the head into the shoulders. When lifting up on the head (traction), relief of arm pain is common. The neurological exam will usually show a reduction of sensation when we gently poke them with a sharp object, and/or they may have weakness when compared to the opposite side.

Chiropractic treatments can be very successful in resolving cervical disk herniation signs and symptoms, and should CERTAINLY be tried before agreeing to a surgical correction. Often, the surgeon will recommend a fusion of 2 or more neck vertebrae, sometimes with a metal plate in the front of the spine. This increases the load on either side of the fusion and can create problems above and below the fusion. Trust me, try chiropractic first. You'll be glad you did!

Common Questions about Cervical Disk Herniations

The focus of this article is common questions that arise from patients suffering from cervical disk derangement.

1. “What can I do to help myself for my herniated disk in my neck?” The mnemonic device “PRICE” stands for Protect, Rest, Ice Compress, and Elevate is a good tool to use in the acute stage of many musculoskeletal conditions.

Protect your health by NOT placing yourself in an environment that is likely to harm you, such as playing sports or doing heavy yard work. That is, think about what you do BEFORE you do it and if sharp, radiating pain occurs, STOP and assess the importance of what you are doing. Use the concept, “…don’t pick at your cut.” This means if you want the injury to heal, don’t keep irritating it!

Rest is similar. Limit your activities to those that can be done without increasing symptoms, especially radiating pain.

Ice – The use of ice reduces swelling/inflammation, which reduces pain and promotes healing. Alternate it every 15-20 minutes (on/off/on/off/on) several times a day. You can also use contrast therapy (Ice/heat/ice/heat/ice) at 10/5/10/5/10 minute intervals to “pump” out the swelling.

Compress – The use of a collar worn backwards, if it’s more comfortable that way, can literally “take the load off.” the neck and disks. There are even inflatable collars which are pumped up with air to traction the neck. Other forms of traction will be discussed further.

Elevate – The concept of raising the ankle to the height of the heart so swelling can drain out of the ankle is the classic example of “elevation.” In the neck, the traction concept may apply once again.

2. “I don’t want to have surgery if I can help it. What can you do as a chiropractor to help me?” This is one of our primary goals, and in fact, the goal of ALL health care providers, even surgeons! Chiropractic offers anti-inflammatory measures: ice, herbal anti-inflammatory agents (ginger, turmeric, bioflavonoid, curcumin, bromelain, Rosemary extract, Boswellia Extract, and more), digestive enzymes taken between meals, muscle relaxant nutrients (valerian root, vitamin D, a B complex, chamomile, magnesium, and others) as well as other non-pharmaceutical options. Treatments consist of manual manipulation, mobilization, traction (for home and office), modalities such as laser and low-level laser, electrical

stimulation, magnetic field, ultrasound, and others. Most important is having a “coach” guide you through the stages of healing by first addressing the acute inflammatory stage (first 72 hrs.), the proliferative or reparative phase (up to 6-8 weeks), followed by the remodeling phase (8 weeks to 1 or 2 years) and finally, the contraction phase (lifetime – includes the natural shortening of scar tissue).

If manual traction reduces neck and arm pain, the use of home traction is very effective. Options include sitting over-the-door traction, laying down versions, and mobile traction collars (discussed previously). Exercises to stretch and strengthen the neck are also very important in reducing neck pain as well as preventing recurrences. If in spite of all the best efforts of this non-surgical care approach should ongoing neurological loss and relentless symptoms continue, we will coordinate care with physiatrists for possible injection therapy and pharmaceuticals, with neurology for further testing (such as EMG/NCV – a nerve test), and/or neuro- or orthopedic surgery – THE LAST RESORT!

Does Neck Surgery Improve Long Term Outcomes?

How many times have you heard, “I have a pinched nerve in my neck and have to have surgery.” Though there certainly are cases where surgical intervention is required, surgery should ONLY be considered after ALL non-surgical treatment approaches have been tried first (and failed). It is alarming how many cases of cervical radiculopathy (i.e., “pinched nerve”) end up being surgically treated with NO trial of non-surgical care. Hence, the focus of this month’s article will look at research (“MEDICAL EVIDENCE”) that clearly states neck surgery DOES NOT improve the long term outcomes of patients with chronic neck pain.

Chronic neck pain (CNP) is, by definition, neck pain that has been present for a minimum of three months. This category of neck pain is very well represented, as many neck pain sufferers have had neck pain, “…for years” or, at least longer than three months. Depending on the intensity of pain and its effect on daily function, many patients with CNP often ask their primary care provider, “…is there anything surgically that can be done?” The desire for a “quick fix” is often the focus of those suffering with neck pain. Unfortunately, according to recent studies, there may not be a “quick fix” or, at least surgery is NOT the answer. The December 2012 issue of The European Spine Journal reports that spine surgery did NOT improve outcomes for patients with CNP. Moreover, they pointed to other studies that showed some VERY STRONG REASONS NOT to have spine surgery unless everything else has failed.

One of the reasons was a higher hospital readmission rate after spine surgery. Another reported that most studies on surgical vs. conservative [non-surgical] care showed a high risk of bias, suggesting the research on surgical intervention was biased in the research approach used. They further reported, “The benefit of surgery over conservative care is not clearly demonstrated.” It is important to point out that the research analyzed studies that included patients with and without radiculopathy (radiating arm pain from a pinched nerve), and myelopathy (those with pinching of the spinal cord creating pain, numbness, weakness in the legs, and/or bowel / bladder dysfunction).

In February of 2008, the Neck Pain Task Force published overwhelming evidence that research supports the use of cervical spinal manipulation in the treatment of both acute and chronic neck pain with or without radiculopathy. Bronfort published similar findings in 2010 in a large UK based study that looked at the published evidence supporting different types of treatment for various conditions. They found cervical spine

manipulation was effective for neck pain of ANY duration (acute or chronic). Chiropractic utilizes manipulation, manual traction, mobilization, muscle release techniques, home cervical traction, exercise, as well as a multitude of physiotherapy modalities when managing patients with CNP. Given the overwhelming research evidence that surgical intervention for CNP is NOT any better than non-surgical care, the greater amount of negative side-effects, and the obviously long recovery time post-surgically, chiropractic treatment of anyone suffering from CNP should be tried FIRST.

Cervical Traction – The Many Options and How To Use It!

Last month, we looked at the published evidence that overwhelmingly supports the use of cervical traction. As promised, this month's focus is the proper methods of applying it. The type of traction that this discussion will address will be limited to the kind that can be purchased and then used in the home, usually multiple times a day, giving it a clear advantage over in-office traction treatments which can only be applied a few times a week during office visits. In some cases however, it may be appropriate to use the in-office type for a few sessions to determine dosage and/or tolerance prior to administering a home unit, but this varies from case to case, and each type of traction unit is different. In the neck or cervical spine, there are many varieties including: sitting over-the-door types, cervical collar types, as well as supine (lying on the back) types. Each variety has its pros and cons and prices vary considerably from $10 to $600.

CONDITIONS: Probably the most common condition treated with cervical traction is "cervical radiculopathy," or a pinched nerve. When a nerve root in the neck is pinched, pain, numbness, tingling, and/or muscle weakness occurs in the area the particular nerve innervates. For example, if a patient presents with pain and numbness radiating down the arm to the thumb and index finger and/or have weakness in bending their elbow and extending their wrist, then we know that the C6 nerve is pinched. When pulling or stretching the neck relieves the arm pain, traction is usually helpful. If pain worsens, the person is probably not ready for traction yet.

PROTOCOL (DOSAGE): The key to a successful outcome using cervical traction is finding the right dosage. If you start with too much weight, it may leave you feeling sore, or worse, making you reluctant to try it a second time. Therefore, rather than relying on using a certain percentage of body weight, it's safest to start with less weight and then gradually increase it, such as 5# (# = pounds or .45 kg) for 15-20 minutes. If that dose feels fine, try 7#/15-20 min., then 9#, 11#, 13#, etc., until you find it just isn't quite as comfortable at the last weight. You have now found your current threshold and should drop down to the last most comfortable weight and use that for a few days and then MAYBE try increasing it again. Studies show a maximum stretch is usually achieved within 15-20 minutes, so extending the time longer may be less productive. Facing the over-the-door unit may be better tolerated than facing away. Try it both ways and you decide which feels best. The next most important issue is frequency.

How often to repeat the traction sessions depends on:

1. The condition's severity and your response;

2. Your time availability.

If there is a severe nerve pinch with muscle twitching, weakness and dense numbness/tingling, then the traction may be repeated MANY times a day, gradually increasing the weight to find the optimum amount. We've had people repeat the traction 10x/day! There is also the option of wearing a cervical collar traction unit, which can make it easy to do at the office or at home. Since each case is unique, we'll discuss that individually. The bottom line, IT WORKS GREAT with proper chiropractic management and in many cases, surgery CAN be avoided!

Utilizing a "cervical pillow" (round pillow that is under your neck only) for 20 minutes before falling asleep can also be effective as it acts as a gentle traction. Have your chiropractor suggest the proper size for you, as we all have different length necks.

Traction – Does It Help Neck Pain and Headaches?

Traction is defined as, "…the act of pulling a body part." Therefore, it is commonly used in many regions including legs, arms, low back, mid-back, and the neck. We will be limiting this discussion to cervical or neck traction, and the question of the month is, "…does it help patients with neck pain and headaches?" Though I'm assuming you already know, the answer is YES! You may want a little "proof," so here it goes!

REDUCES DISK PROTRUSIONS: In 2002, a medically based study found traction to be very effective in the treatment of cervical radiculopathies (pinched nerves in the neck that radiate pain into the arms). A 2008 study using MRI (images) described the effect traction had on the disk protrusions in the neck reporting 25 of 35 (or 71%) were reduced while in traction with a 19% increase in the spacing (disk height) and improved neck range of motion after the traction was applied. They postulated that by pulling the vertebrae in the neck apart, there was a suction-like effect pulling the disk material back in place.

RECOMMENDED BY GUIDELINES: Around the world, guidelines have been published giving doctor's information that allows us to know how well certain forms of treatment work for different conditions. In a 2008 publication, it was reported that, "Clinicians should consider the use of mechanical intermittent cervical traction, combined with other interventions such as manual therapy and strengthening exercises, for reducing pain and disability in patients with neck and neck-related arm pain."

CLINICAL PREDICTION RULES: These help us determine who is most likely to benefit from a certain type of treatment (in this case cervical traction and exercise). If 3 of 5 variables are found, the likelihood of success with traction & exercise was reported to be 79%, and if 4 of the 5 are found, 90%. The 5 variables are: 1. Radiating neck to arm pain in certain positions; 2. Positive shoulder abduction sign; 3. Age >55years old; 4. Positive limb tension test; 5. Relief of symptoms using manual distraction test (if pain is relieved while the neck is being pulled).

INTERMITTENT AND CONTINUOUS TRACTION: Either way, significant improvement in neck and arm pain, neck mobility, and nerve function occurred with both approaches.

TRACTION VS. SURGERY: In this study, patients with radiating arm pain and positive neurological findings on exam were offered a course of

traction before surgical options. They reported 63 of 81, or 78%, of the patients experienced significant or total relief, 3 could not tolerate traction and 15 simply didn't respond. They concluded that when neck and arm symptoms with neurological deficits were present for 6 weeks, that 75% will respond to neck traction over the next 6 weeks.

There are MANY additional studies available that show well beyond doubt that cervical traction is a GREAT option in the management of neck and arm pain and sometimes headaches. Next time, we will discuss "HOW TO" apply cervical traction.

Is It My Neck or Thoracic Outlet Syndrome?

Neck pain can arise from many different sources, and the patient's clinical presentation can be quite similar making it a challenge to diagnose. One of those related, and sometimes co-existing conditions, is called thoracic outlet syndrome, or TOS. Let's first discuss the anatomy of the neck and the thoracic outlet so we all have a good "picture" in mind of what we're talking about.

TOS can arise from either blood vessel compression, nerve compression or both, making the ease of diagnosis difficult. Adding to the challenge, the "pinch" of the structure can occur at more than one place! The nerves and blood vessels can get pinched at the exiting holes in the spine ("neuroforamen"), by tight "scalene" muscles, under the collar bone (clavicle) and/or by a tight pectoralis minor muscle near the arm pit. Hence, the symptoms usually include pain and numbness in the shoulder, arm and hand (usually affecting the 4th & 5th fingers). It's our job to run different tests to figure out where the primary pinch or pinches are located so we can treat the right area.

The causes of TOS can be many, with one of the obvious being a fractured collar bone or clavicle. Another is from having an extra rib. As there is not a lot of room for an extra structure, this can be a point of compression for some (but doesn't create TOS in everyone). An overly tight scalene muscle, scar tissue, an extra-large muscle and so on can also result in pinching of the nerves and/or blood vessels.

Purses, backpacks, carrying golf clubs, a mailbag and the like can also cause a pinch. A seat belt injury in a car accident is yet another cause, either from the direct trauma, or later when scar tissue forms in the area.

Our posture alone (without trauma), such as a slouchy, slumped posture where the shoulders roll forwards can cause TOS and, large breasts and obesity also add to the list of risk factors. Women are affected 3x more than men. Certain jobs where reaching overhead or outwards such as waitresses, carpenters, electricians, increase TOS risk.

Neck Pain and Our Pillow: A Case Study

The relationship between neck pain and our pillow is more important than most of us realize! Though we all may have at one time or another slept on a variety of surfaces, and used any number of pillows (flat, medium, bulky) made of different materials (foam, feather, air, water, or memory foam), it's usually not until neck pain and/or headaches start to become an issue that we start to think, "...how important is my pillow?" Thankfully, the question has been addressed in a randomized peer-reviewed study. So, what did they find out?

The goal of a pillow is to support the neck more so than the head.

In a study headed by Dr. Liselott Persson, MD, of the department of neurosurgery at the University of Lund in Sweden, researchers tested whether specific neck pillows have any effect on neck pain, headache and sleep quality in people suffering with chronic (>3months), non-specific neck pain.

They also researched whether there was an optimum or "best" type of pillow that was preferred by their 52 patient group. They used 4 different pillows, 1 "normal" pillow and 3 of which were specially designed, each having a different shape and consistency. Over a 4-10 week time frame, the pillows were randomly distributed to the neck pain group who then graded them according to comfort, the effects on neck pain, sleep quality and headache using a questionnaire, and also described the characteristics of an "ideal pillow." Researchers and participants concluded the "ideal pillow" (for reducing neck pain and headaches and improving quality of sleep) includes a soft pillow with good support under the neck's curve (lordosis).

There are many styles of contoured cervical or neck pillows that vary considerably. This study supports the use of a specially designed style over a normal pillow. So what are some of the things to look for? First, consider your neck's length and girth. When you look in a mirror, do you have a neck that is short vs. long or, narrow vs. wide? This will direct you to a pillow that has a larger "hump" for your neck to be cradled in if it's a long neck and, the height of the hump – taller for the slender neck or, shorter for the wide neck.

Some pillows have 2 options of "hump" sizes (located on the long edges of the pillow) – one short and at and the other side taller and wider. Others recommend lying in the middle of the pillow if you're a back

sleeper vs. lying on the edge of pillow when sleeping on your sides. A measurement taken from the neck to the point of the shoulder determines if the pillow should be a small, medium, or large. Water filled and / or air filled pillows can be varied by the amount of water or air added. The bottom line of which is “best” is based on comfort and support. Regardless of which you choose, it can take several days to get used to the new pillow, so we recommend using the pillow for at least 1 week. By then, you’ll know if you chose the right style.

Because there is naturally an arch formed in the neck (which many of us no longer have due to whiplash injuries) it can be helpful to “support and stretch” the neck muscles and separate the vertebra before we sleep.

After 35 years of helping many patients find the best pillows for their condition, I have found the following, to be the most helpful.

Use a NECK ROLL AKA CERVICAL PILLOW. A round “Log” like pillow that is used just under your neck. You can use a soft squishy pillow or a rolled up hand towel (the width of your fist.)

Make sure you head and upper back is touching the bed, with the pillow under your neck only! It should feel like a gentle stretching.

Start out on your back for 10-20 minutes. Then you can toss it away and lye on your side. After a few nights you might find you sleep on it all night. That is great.

Neck and Headache Pain and Posture

Neck pain is one of the most common complaints for which patients present to chiropractic offices. Headaches are also another very common problem and often go hand-in-hand with the presence of neck pain. So, the question that is frequently asked is, "…why do headaches and neck pain often travel together?"

There are many types of headaches, some of which we have discussed previously with migraine and tension-type headaches being the most common. This month, the focus is on how headaches and the neck are related to each other and what YOU can do about it.

The relationship between neck pain and headaches is strong! In fact, in some cases, headaches will occur ONLY when the neck hurts. One reason is because the first three nerves that exit out from the top of the cervical spine (C1, 2 and 3) have to travel through the thick group of muscles that insert onto the back/base of the skull along the occipital rim.

Because we carry a lot of stress in the neck muscles, when they tighten up, they squeeze or pinch those 3 nerves and pain then radiates into the back of the head and sometimes up and over the vertex to the eyes or behind the eyes. If you take your fingers or thumb and push firmly into those muscles at the very top of the neck or base of the skull, it often feels, "…like a good hurt." This is because they are usually tight since most of us carry our head too far forwards and the muscles have to contract and constantly work to keep the head from gliding even further.

So, what can you do about it? Let's talk about a few GREAT posture-retraining exercises. Tuck in your chin to the point where the voice changes pitch (your voice will start to sound "funny"). At that point, release the chin slightly so the voice clears and stay in position! That is the posture or head position of choice. Initially, it will be very difficult to remember to hold that position very long because your muscles (and brain) aren't used to it and, you'll slip back into the old forward head carriage habit or chin poke position.

So, be patient with yourself because it takes about 3 months of constant self-reminding to, "…keep that chin tucked," before this new "habit pattern" is formed in the brain.

Another great exercise is an "offshoot" of this, where you tuck the chin in as far as you can (making a double or triple chin) holding that position for 3 seconds, and then tip the head back as far as you can without releasing

the chin tuck and hold for another 3 seconds. Repeat this 2-3x / “set” and perform this multiple times per day.

A 3rd great exercise for improving the forward head carriage posture is performed by lying on your back on a bed so that the edge of the bed is at the middle of the neck and head is dangling off the bed. Take a tightly rolled up towel (a hand size towel works well) and place it under the neck so that is resting on the edge of the bed so that your head can fall back towards the floor. Take some deep breaths and concentrate on relaxing all your neck muscles. Periodically, slowly rotate your head left to right, right to left, and “feel” the different muscles stretch as you do this. If you can afford 15 minutes, that’s PERFECT! But, if you only have a few minutes it’s still GREAT!

Between maintaining a chin tuck upright posture and retraining the curve in your neck with the head hang off the bed exercise, you’ll feel (and look) much better!

SO WHAT IS GOOD POSTURE? …All you need to do is Straighten Up and Look Forward. …..Sort of..

Good Posture: 1,2,3

1) First of all stick your buttocks out (yes we do not tuck our pelvis) this increases the proper curve of the low back.

2) Second, do a chin tuck gently draw your chin and head back like you are making a double chin. (do not tilt your head in any direction)

3) Third, relax 10-20% in this position. Walk around and try not to be “robot like”, you will feel “stiff” at first, but very soon your will be standing tall and with good posture.

Neck Pain: Manipulation vs. Other Treatments?

Mechanical neck pain affects an estimated 70% of people at some point in their lives. Many different treatment approaches are available for neck pain, making it very difficult for those suffering from neck pain to know which treatment approach(es) to choose. Research in this topic has revealed some very interesting information that places chiropractic and spinal manipulation in a VERY STRONG POSITION – in fact, at the TOP OF THE HEAP!

One such study looked at benefits of spinal manipulative therapy (SMT) in patients with acute and subacute neck pain. This study compared three study groups:

1. SMT only,

2. medication only, and

3. Home exercise and advice (HEA).

This study randomized 272 neck pain patients suffering from neck pain for 2 to 12 weeks into a 12 week treatment period using 1 of the 3 treatment approaches tracking the results with the participant-rated pain as the primary treatment outcome measure. Secondary outcome data was obtained from other approaches. The results showed that the group treated with SMT, "…had a statistically significant advantage over medication after 8, 12, 26 and 52 weeks. HEA also had a statistical advantage over medication.

Lastly, similar benefits were calculated between the SMT and exercise group. The conclusions support SMT and exercise/advise to be the choice over medication for acute and subacute neck pain patients. Regarding exercise, a similar study showed that "high-dosed supervised strengthening exercise" with and without SMT, was superior to a "low dose home mobilization exercise and advice group at 4, 12, 26, and 52 weeks."

Regarding chronic neck pain patients (that means pain that has been present for greater than 3 months), this study evaluated the changes that occurred in 191 patients. These patients were randomized to 11 weeks of 1 of 3 treatment groups and evaluated at 3, 6, 12, & 24 months after treatment. The 3 treatment options included: 1. Spinal manipulative therapy (SMT) only, 2. SMT with low-tech neck exercises, or, 3. A form of exercise using a MedX rehab machine. The results support the highest

level of patient satisfaction was found in the 2nd group (SMT with low-tech exercise), suggesting that when patients present for treatment, spinal manipulation with low-tech exercises results in the most satisfied patient. These findings are important as this study evaluated the LONG-TERM benefits in patients who have had neck pain for a long time (i.e., “chronic”), where most studies only look at the short-term benefits.

Similar conclusions were reported from perhaps the largest scale study on neck pain based on research from 1980 to 2006 on the use, effectiveness and safety of noninvasive treatment approaches for neck pain and associated disorders. Their review of over 350 articles supported manual therapy (manipulation and mobilization) and supervised exercise to again, SHINE in their conclusions.

What is important is that ALL these studies support what chiropractors do: manipulate the neck and give supervised exercises! So, what are you waiting for? SPREAD THE WORD to everyone that you know who has neck pain – CHIROPRACTIC MAY BE THE BEST CHOICE!!!

The Neck and Headache Connection

When we hear the term headache, we don't usually think about the neck. Rather, we focus on the head, more specifically, "…what part of the head hurts?" But, upon careful questioning of patients, we usually find some connection or correlation between neck pain and headaches.

The key to this connection can be found in looking at the anatomy of the neck. There are 7 vertebrae that make up the cervical spine and 8 sets of nerves that exit this part of the spine and innervate various parts of the head, neck, shoulders and arms, all the way to the fingers. Think of the nerves as electric wires that stretch between a switch and a light bulb. When you flip on the switch, the light illuminates. Each nerve, as it exits the spine, is like a switch and the target it travels to represents the light bulb. So, if one were to stimulate each of the nerves as they exit the spine, we could "map" exactly where each nerve travels (of course, this has been done). When we look specifically at the upper 3 sets of nerves that exit the spine (C1, C2, and C3), we see that as soon as they exit the spine, they immediately travel upwards into the head (the scalp). Like any nerve, if enough pressure is applied to the nerve, some alteration in nerve function occurs and usually a sensory change is noted (numbness, tingling, pain, burning, etc.). If the pressure continues, these symptoms can last for a long time. These types of headaches are often called "cervicogenic headaches" (literally meaning headaches that are caused by the neck). These can be caused by the nerves getting pinched by tight muscles through which they travel as they make their way to the scalp.

Another connection between the neck and headaches includes the relationship between 2 of the 12 cranial nerves and the first three nerves in the neck described above. These types of headaches usually only affect one half of the head – the left or right side. One of the cranial nerves is called the trigeminal nerve (cranial nerve V). Because the trigeminal nerve innervates parts of the face and head, pain can also involve the face. Another cranial nerve (spinal accessory, cranial nerve IX) can also interact with the upper 3 cervical nerve roots, resulting in cervicogenic headaches. People with cervicogenic headaches will often present with an altered neck posture, restricted neck movement, and pain when pressure is applied to the base of the skull or to the upper vertebrae. Other than a possible numbness, there are no clinical tests that we can run to "show" this condition, though some patients may report scalp numbness or, it may be found during examination.

Though medication, injections, and even surgical options exist,

manipulation applied to the small joints of the neck, especially in the upper part where C1-3 exit, works really well so why not try that first as it's the least invasive and, VERY EFFECTIVE! In some cases, a combination of approaches may be needed but many times, chiropractic treatment is all the patient needs for a successful outcome.

Neck Pain and the Disk

When we say to you, "…you have a cervical disk problem," do you know what that means? I didn't think so. As doctors, we talk about these things so often, we sometimes just assume you know what we're talking about. So first, sorry about that! Now, let's clear up the question, what is a cervical disk problem?

The term "cervical" means neck, just like the terms "thoracic" means mid-back and "lumbar" means low back. The term "disk" refers to the shock absorbing fibro-elastic cartilage that rests between each vertebra of the spine. Think of the disk as being similar to a jelly donut. The center of the disk is liquid-like (the nucleus), kind of like petroleum jelly, and the outer part (the annulus) is tough and strong and circles the nucleus center like the rings of a freshly cut oak tree stump. What makes the annulus/outer layer so strong is the type of tissue it's made up of and, maybe most important, the opposing crisscross pattern of each layer or ring of the annulus. Studies have shown that when the disk is pierced with a knife and then compressed, this crisscross pattern of the annulus layers self-seals the cut, resulting in no leakage of the liquid center.

So, the question is, how can a disk rupture, herniate or "slip" if it's so tough, strong, and self-sealing? The answer: as the disk ages or when it's injured, tears or "fissures" in the disk fibers occur creating rents or channels for the liquid part to work its way out towards the edge and eventually break through the outer most layer – hence, the term "herniated disk." It's similar to stepping on that jelly donut until the jelly leaks out to the point where you can see it.

Here's the strange part. Research tells us that about 50% of people have bulging disks (not quite herniated through) and 20% of us have herniated disks (that have popped through) but have NO PAIN AT ALL! That makes it tough since an MRI or CT scan may show a herniated or bulging disk but how do we know that's the disk that's clinically important – the one that's creating the pain? That's why we treat patients and not their image (MRI, CT scan or x-ray). Even though a disk may be bulging or herniated, we may not necessarily treat that particular disk if it's not expressing itself clinically by creating a shooting pain down a specific area in an arm, usually below the elbow often into either the thumb or pinky side of the hand, with associated abnormal tests for strength and/or sensation. That's why we check your reflexes, your strength, and sensation for each nerve. We're checking to see if that herniated disk is "pinching" the nerve and if it is, we utilize manipulation, traction, PT modalities, and issue home traction units to try to "un-pinch" that nerve to avoid surgery.

Neck Pain and Arthritis

When we say the word “arthritis,” many images pop up in our heads. Some people think of crippled hands or perhaps Mr. Smith who talks about his bad hip being, “…bone on bone!” Or, how about the neighbor who has a bum knee and walks with a limp and a cane? Rarely do we think about the neck being associated with “arthritis.”

Before we go too far into this discussion, we should define the term, “arthritis,” which means joint (“arth-“) swelling (-itis). Simple enough, right? Wrong! Without getting too complicated, we must realize there are MANY different types of arthritis such as osteoarthritis, rheumatoid arthritis, lupus, gouty arthritis, psoriatic arthritis, etc. To narrow this down a bit, we will limit our discussion to osteoarthritis, also known as degenerative joint disease.

Degenerative joint disease or DJD, is the most common type of arthritis that EVERYONE eventually ends up with – whether we like it or not. That’s because, over time, our joints wear out and become “arthritic.” While it’s true that weight bearing joints wear out quicker (like hips and knees more so than elbows and shoulders), DJD can affect any joint. There are many causes of DJD, including a genetic or hereditary tendency but the most common cause is wear and tear over a long period of time.

Of course, the rate of acquiring DJD in the neck (or anywhere else for that matter) is directly related to how “nice” we have been to our body, in this case, the neck. For example, after a car accident, a common injury to the neck is whiplash. This occurs because we literally cannot control the speed of the head as it rapidly moves forwards and backwards upon impact and it’s all over within 600-800 milliseconds! Since we can’t voluntarily contract a muscle that fast and when joints move beyond their normal stretch length, the ligaments – those non-elastic, tough tissues that securely holds bone to bone – will only “give” so much and then tear, which is technically called a “sprain.” This leads to an accelerated rate of degeneration.

Blood tests are negative with DJD (unlike many of the other types of arthritis), and an x-ray can help determine how “arthritic” the joint is and whether the smooth, silky ends of the joint (called hyaline cartilage) are worn down and if bony spurs are present. In the neck, DJD can create a lot of symptoms which may include pain and stiffness, especially in the mornings after laying still and not moving during the night. After we get up and move around, “…it loosens up.” As the condition advances, neck movements become tight and restricted with pain, which further limits

movement, and sooner or later, the patient must rotate their whole body to look to the side. If the arthritis hits or bumps into a nerve as it exits the cervical spine, neck soreness, and numbness/tingling may radiate down an arm, at times to the hand, usually only affecting certain fingers. Headaches, especially in the back of the head, can also occur from the reflex muscle "splinting" due to the pain associated with arthritis. As Dr. Peter Ulrich, MD points out (http://www.spine-health.com/conditions/arthritis/cervical-osteoarthritis-neck-arthritis) chiropractic adjustments, "… help control chronic symptoms or provide relief for more severe episodes of pain from osteoarthritis."

Neck Pain: What Can I Do About It?

Neck pain is one of those conditions that affect most people at some point during their lifetime. All you have to do is ask just about anyone, "…have you ever had neck pain?" Then again, maybe you shouldn't since you'll probably get overloaded with way too much information from several people willing to share every little detail with you. Because of the way we are anatomically built, the neck is particularly vulnerable to injury (it has to hold up an average head weight of 15 pounds which can be quite a job, especially when we slump or slouch and that 15 pound weight falls forwards).

Injury to the neck can result in minimal symptoms all the way to complete disability, making it one of the most common reasons people see doctors of all varieties for help. Couple neck pain with headaches and now you have a real potential for disrupting lifestyles. With simple causes like poor posture, stress, work station problems or long hours at a computer, not to mention anxiety, depression and more, it's no wonder most of us have needed help for neck pain at some point in time. So, the question remains, "…what can I do about it?"

From a chiropractic standpoint, manipulation, massage and other soft tissue techniques, and several forms of physiological therapeutics (such as ultrasound, electric stimulation, light – low level laser therapies), all work great! But, instead of (or, in addition to) things that WE do to you, let's discuss things we can teach YOU to do on your own. There is a long list of aids that help neck pain that you can self-manage, of which some include: a home traction device, cervical pillows, exercises, posture retraining, stress management, work station modifications, work / job analysis and subsequent modifications, and more.

Most important is that YOU are in control of your own management program. All you need is a little motivation (your job) and proper training (our job). Many of these "self-help approaches" include an apparatus or device of some sort, which are technically coined, "hard durable medical supplies." More specifically: Cervical traction units include (but are not limited to) inflatable collars, seated over-the-door traction units, laying on the back varieties, as well as towel traction. The concept here is that you are stretching the neck vertebra apart and if it's done proper, it should feel good! Don't do it if it doesn't or, reduce the weight until it does feel good. Another type of traction is placing a fulcrum (dense foam triangle) behind the neck while lying allowing the head to hang off the edge of the bed.

Cervical pillows share the common concept of being contoured to fit the neck and head. These are thicker on the edge so the gap between the neck and shoulder point is filled in so the head is pointed straight ahead. There are many types of contoured pillows including water pillows, foam, inflatable, buckwheat, rice, and other types. However, a word of caution is in order: you may not like it at first as it can take 3-4 nights to get used to it. But, once you do, you'll miss your pillow when you're not able to travel with it.

Exercises. Place your hand against your head and push into the hand, allowing the head to "win" as you move through the full range of motion (forwards, backwards, sideways and rotation). Don't forget stretching, other strengthening exercises, and fine motor control exercises are important as well. We'll have to pick this topic up again in the near future.

Neck Pain Self-Help Techniques

It is very important that those of us with neck pain learn what we can do to help ourselves as the benefits from treatment are always much more satisfying for both the healthcare provider and patient. Self-care promotes independence and a feeling of accomplishment. You are the most important part of this “team” e ort as we both work hard to “...get you better!” Let’s take a look at what self-help techniques you can apply when neck pain strikes:

Acute stage: This is the period of time when neck pain first starts and it’s usually very sore and painful. This stage occurs immediately after an injury and continues for 24 to 48 hours but can be perpetuated for a week or longer if you are careless about your activities and keep irritating it. Injuries to the neck are similar to a cut on the skin. If you pick your cut, it will bleed again. Sometimes, you have to wait a week or two before you can, “...pick o the scab.” This analogy also applies to neck pain after an injury.

At this stage, you need to apply the principle of “PRICE” (Protect, Rest, Ice, Compress, Elevate). OK, I guess we’re not going to “compress” or “elevate” our neck but certainly the others apply nicely. To protect the neck, avoid quick/unguarded movements as these can “...pick at the cut” and re-injure the tissue. Rest means you may have to hold back on some activities that are strainful and might also, “....pick at the cut.” Ice is a WONDERFUL painkiller and anti-inflammatory and should be rotated on/off /on/off /on at 20 minute rotations of ice /no ice/ ice /no ice / ice. This creates a “pump-like” action that pushes away the swelling and therefore, reduces pain.

These self-help techniques can continue for a few days to a whole month, depending on the degree of injury and, how “nice you are” to yourself (so you don’t overdo it!) Cervical traction (home over-the-door traction) can really help a lot too!

Sub-acute stage: This stage of healing starts any time after 48-72 hours and can last 4-6 weeks or more, depending on again, the degree of injury and is “niceness” dependent!

During this stage, the callus (scab) is hardening and its becoming stronger/less likely to “re-bleed.” During this stage, range of motion, fiber stretching, isometric exercises can slowly be integrated into your program. Progressively harder exercises and re-introduction back into “normal” activities should be emphasized during this stage.

Chronic stage: This stage can last from 8 weeks to 1 or more years.

When neck pain persists, determine which desired activities are well tolerated, including exercises. When “flare-ups” occur, a brief time period with ICE is nice! Exercises here can be quite physical and progressive, based on your tolerance and exercise experience.

Neck Pain Reducing Tricks

Exercises that focus on improving posture, flexibility, strength, and coordination are important for creating a well-rounded cervical rehabilitation program. Our discussion continues this month with stretching and strengthening exercises.

STRETCHING: Since our neck muscles have to hold up our 12 pound (~5.5 kg) head, it's no wonder why our neck muscles seem to be tight almost all the time.

Here are two ways to stretch the neck:

You can simply drop the chin to the chest, look at the ceiling, try to touch your ear to your shoulder (without shoulder shrugging) on both sides, and rotate the head left to right and vice versa (six directions).

You can use gentle pressure with your hand and assist in the active stretch by gently pulling into the six directions described in #1 by applying "over-pressure" at the end-range of motion (staying within "reasonable pain boundaries").

STRENGTHENING: A lot of people have a forward head carriage, meaning their head normally rests in front of their shoulders. The further forward the head sits, the greater the load on the muscles in the back of the neck and upper back to hold it up. This position promotes a negative spiral or "vicious cycle" that can lead to many complaints including (but not limited to) neck pain, headaches, balance disturbances, and in the long-term, osteoarthritis.

There are two important groups of muscles that require strengthening: the deep neck flexors and deep neck extensors.

The deep neck flexors are muscles located directly on the front of the cervical spine and are described as being "involuntary" or unable to be voluntarily contracted. Hence, we have to "trick" the voluntary outer "extrinsic" (stronger) muscles into NOT WORKING so the deep, intrinsic ones will contract.

You can do this by flexing your chin to the chest and pushing your neck (not head) back over your shoulders into resistance caused a towel wrapped around the back of the neck. If you feel your chin rise towards the ceiling, you're doing it WRONG! Keep the chin tucked as close to the chest as possible as you push your neck (not your head) backwards. If you're doing it correctly, your chest should rise towards the ceiling as you push your chin down and neck back. Try it!

The deep neck extensors are strengthened in a very similar way EXCEPT here you DO push the back of HEAD back into your towel while keeping your chin tucked tightly into your chest. Do three reps, holding each for three to five seconds and switch between the two for two to three sets.

More Neck Pain Reducing Tricks

This series has included exercise recommendations to self-manage neck pain, headache, upper back pain, and dizziness. This topic involves enhancing coordination, which may be the most important topic in this three-part series!

Coordination-based exercises are important because they stimulate our neuro-motor system and can help restore normal function. We can all relate to the challenge of learning new activities. In many cases, we may struggle with the basics, but over time, they become easier to perform and we're eventually able to accomplish these neuromuscular sequences without even thinking about it.

When we are injured, we COMPENSATE and change our methods of doing the various tasks associated with our work and daily living. Unfortunately, these altered neuromotor sequences can become our "new normal" and can lead to other faulty compensatory motor functions (a negative vicious cycle). To " x" this, we must First "Identify" the faulty pattern, Second "Fix" the faulty pattern consciously, Third "Practice" the new or proper method long enough so that, Fourth The proper/new/ fixed method becomes automatic or "unconscious."

So, HOW do we re- establish proper motor function after an injury?

We can all start stimulating the neuromotor system by adding coordination-based components to our current fitness program. For example, when performing an exercise, release slowly but keep resisting. This "eccentric" resistance (resistance as the muscle elongates) builds coordination while the "concentric" resistance (resistance as the muscle shortens/contracts) builds strength.

Apply this principle to ALL resistance exercises, and remember only use a light amount of resistance when exercising your neck muscles – only 10-20% of a maximum push! Another "principle" that is applicable to ALL exercises is to start simple and slowly add or integrate more complex movements or start doing two things at once (like pinch a ball between your knees or stand on one leg while performing your neck exercises).

Be "mindful" or THINK about what you are doing to further stimulate the nervous system.

Some other ways to add variety to your exercises include incorporating sitting on a gym ball, jumping, or standing on a rocker or wobble board.

MAKE IT FUN and challenging! ALWAYS build on what you have previously mastered!

Neck Pain – Management Strategies

As discussed previously, when you make an appointment for a chiropractic evaluation for your neck pain, your doctor of chiropractic will provide both in-office procedures as well as teach you many self-help approaches so that as a “team”, together WE can manage your neck pain or headache complaint to a satisfying end-point. So, what are some of these procedures? Let’s take a look!

In the office, you can expect to receive a thorough history, examination, x-ray (if warranted), and a discussion about what chiropractic care can be done for you and your condition. Your doctor will map out a treatment plan and discuss commonly shared goals of:

1) Pain reduction,

2) Posture/alignment restoration, and

3) Prevention of future episodes.

Pain reduction approaches include (but are not limited to) joint mobilization and/or manipulation, muscle/ligament stretching techniques, inflammation control by the use of physical therapy modalities (such as electrical stimulation), ice, and possibly anti-inflammatory vitamin / herbal therapies.

Your chiropractor will also teach you proper body mechanics for bending/lifting/pulling/pushing, and help you avoid positions or situations where you might re-injure the area.

Posture/alignment restoration can include methods such as spinal manipulation / mobilization and leg length correction strategies (heel and/or sole lifts, special orthotic shoes, and/or foot orthotic inserts).

These are often GREAT recommendations as they “work” all the time they are in your shoes and you don’t have to do anything (except wear them)!

The third goal of future episode prevention is often a combination ongoing treatment in the office and strategies you can employ at home. This includes (but is not limited to):

1) whether you should use ice, heat, or both at times of acute exacerbation;

2) avoiding positions or movements that create sharp/lancinating pain;

3) DOING THE EXERCISES that you've been taught ON A REGULAR BASIS; and

4) eating and an "anti-inflammatory" diet (lean meats, lots of fruits/ veggies, and avoid gluten – wheat, oats, barley, rye).

Let's talk exercise! Your doctor of chiropractic will teach you exercises that are designed to increase range of motion (ROM), re-educate a reversed curve in the neck, and strengthen / stabilize the muscles in the neck. Studies show that the deep neck muscles located deep, next to the spine in the front of the neck – are frequently weak in patients with neck pain. These muscles are NOT voluntary so you have to "trick" them into contracting with very specific exercises. Your doctor will also teach you exercises that you can do EVERY HOUR of your work day (for 10-15 seconds) that are designed to prevent neck pain from gradually worsening so you aren't miserable by the end of work.

Along these lines, he/she will discuss the set-up of your work station and how you might improve it – whether it's a chair, desk, computer position, a table/work station height issue, or a reaching problem; using proper "ergonomics" can REALLY HELP! Your doctor will also advise you not to talk on the phone pinching the receiver between your head and shoulder, to face the person you are talking to (avoiding prolonged head rotation), to tuck in your chin as a posture training exercise, and more. Cervical traction can be a GREAT home-applied, self-help strategy, and these come in many varieties. Proper positions for the head when sleeping and a properly fitted contoured (cervical) pillow is also important since we spend about 1/3 of our lives asleep!

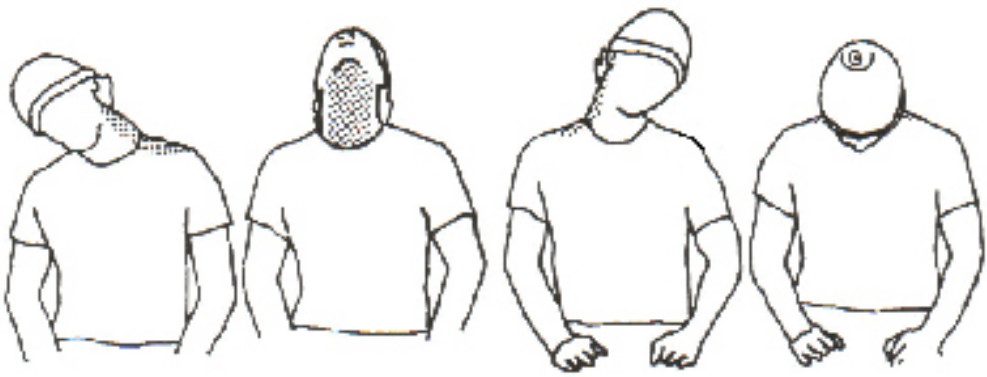
Neck Exercises - Give them a Try

Stand in front of a mirror. Keeping your head even and nose toward the front, slowly try to bring your right ear down toward your right shoulder. DO NOT raise your shoulder toward your head. DO NOT turn your nose down toward your shoulder (keep nose straight DO NOT rotate your head). Stretch your neck as far as you can keep it comfortable, stop in that position. Take a deep breath in and let it out and try to stretch your neck just a little bit more, and then return head to an upright position. Repeat this exercise on your left side.

Standing straight in front of the mirror with your shoulders relaxed; stretch your head forward and your chin down toward our chest. DO NOT hunch up your shoulders. Hold this position and then take a deep breath in and let it out and try to stretch just a little bit more then return your head to the original position.

Standing straight in front of the mirror with our shoulders relaxed, let your head go backwards. Keep your shoulders relaxed and straight. If you feel any pain or discomfort, return to the original upright position. Allow your neck to slowly stretch backwards, take a deep breath and let it out relaxing your shoulder then return to the original position.

Standing in front of the mirror, very slowly turn your head toward the right. Keep your eye level straight in front of you and your shoulders down and relaxed. Take a deep breath and let it out. Try to stretch just a little bit more and return to your original position. Repeat this exercise turning to the left this time.



Text Neck

May be the cause of your neck and upper back pain and even headaches…

Cell phone use is dramatically on the rise. Did you know that the average smart phone user spends an average of 2-4 hours each day with his or her head dropped down? Between reading e-mails, sending texts, and checking social media sites, mobile device users are spending a good chunk of their day with their heads tilted down staring at a screen. As a result, cases of “text-neck”, which can cause neck pain, arm pain, upper back pain, numbness, headaches, etc. are on the rise.

The issue is that as your head leans forward, it places additional weight on your spine. The more your head tilts forward, the heavier it is to hold up!

A 15-degree angle places an additional 27 pounds of weight on your spine.

A 60-degree angle places an additional 60 pounds of weight on your spine. (The weight of an average 7 year old).

Surrounding tissues stretch, becoming sore and inflamed; muscles stretch; and nerves pinch.

It’s not a pretty picture.

Text-Neck specifically refers to a constellation of different injuries and pain types that are sustained from looking down at wireless devices to often and for too long. Unless you’ve been living in a cave without Wifi, I don’t need to tell you that cell phone use is dramatically on the rise.

Take a trip to your local Starbucks, or the mall, or even the freeway, and you’ll see a common picture. People with their heads down—and on the phone.

Outside of being anti-social and dangerous, it’s affecting our posture, causing pain and possible long-term problems.

What are the Signs and Symptoms Associated with Text Neck?

Pain: The upper part of the spine is typically curved in order to ensure that the nerves have plenty of space through the neck and out into the

body. However, constantly looking down at a phone or tablet crunches down all of that extra space, compressing the nerves. This will inevitably generate pain and discomfort. Repeated irritation, misalignment, muscle spasms, or tension can cause neck pain, headaches, pain that radiates down to the fingertips.

Misalignment: In some cases, text neck can actually reverse the neck's natural curve, causing misalignment. Loss of the natural curvature of the spine can lead to a host of other problems, leading to early wear and tear and degeneration.

Ligament Creep: Ligaments that hold bones together are elongated as a result of prolonged, long-term tension. When the ligament s stretch out, they become much looser, making them less effective at holding the vertebrae in place. This causes the vertebra to move around more than usual, which negatively affects the discs, the facet joints and causes problems.

Herniated Discs: All that extra weight on the neck can do a lot of damage to the spine, leading to herniated discs. "It's a lot of load, an amazing amount of weight to be carrying around on your neck." Explained Dr Kenneth K. Hansraj, MD, chief of spine surgery at New York Spine Surgery and Rehabilitative Medicine. "When you have such aggressive stressors on the neck, you get wear and tear on the spine. You can develop tears within the disc, or even get a slipped or herniated disc."

The forward head posture can be affected by too much sitting and misalignment in the pelvis, which cause a chain reaction of muscle and tissue imbalances that makes the head go forward.

Can Text-Neck Do Long Term Damage?

Medical and Chiropractic processionals are concerned that text-neck could actually have long-term implications. Text-neck is associated with poor posture, which has been linked to headaches, neurological issues, heart disease, and depression. Yet another study found that this kind of poor posture can reduce lung capacity by a staggering 30 percent. It increases the risk of developing arthritis, spinal degeneration, disc issues, neck pain, arm pain, shoulder blade pain, and numbness and can lead to chronic neck pain.

Now, if that wasn't enough. Besides the pain and posture affects, "text-neck" can also make you look 10 years older.

What! Text Neck Can Make Me Look 10 years Older?

“Oh, so now I have your attention!”

As Dr. Lancer, a dermatologist in Beverly Hills, succinctly puts it,“If you are always looking down your are going to quickly ruin your neck muscles.” Yes, ladies, electronic devices can cause the skin on your neck to sag.

Think of the muscles on the front of your neck like the wires on a suspension bridge (Golden Gate Bridge). Constantly looking down causes those wires to stay loose, preventing them from ever getting toned. It’s like a chain reaction. The muscles stay loose, which keeps the skin on top of the muscles loose, which makes them look all crinkly and wrinkly.

And, unfortunately, Dr. Lance is seeing more and more people coming into his office complaining of “sagging neck skin”. Some of them are younger than 40.

We can change our habits: keep our spine healthier and look younger!

How Can You Treat The Symptoms Of Text-Neck?

If you are having neck pain, upper back pain or headaches and you feel the culprit is text neck; your best bet is to see a chiropractor.

Chiropractic treatments have been shown to help increase range of motion and reduce fixation of the vertebral structures and surrounding tissues.

How Can You Prevent Text Neck?

Make this easy and just “reducing the amount of time you text”,” pay attention to your posture” “Sit upright”.

It doesn’t have to be an all or nothing proposition, nor do you have to do it all at once. Instead, try reducing your text time by 20% each day. Stop texting at night or during meals. You can even designate text-free zones, such as the dining room, as well as text-free hours, say between 4pm and 6pm. You might be surprised how nice it is to “disconnect”. Also think of how long we are sitting at our computers and tablets.

In short, be creative with your text/computer time. It won’t only save you from an aching and saggy neck, it just might improve the quality of your social life.

It is far better to prevent text neck than to treat it.

Especially in the case of children and adolescents, developing healthy mobile device habits now can mean significantly less pain and misery down the line. Luckily, it is relatively easy to do.

What to do?

Instead of tilting your chin down try raising your mobile device up, close to eye level. Keep your elbows to your side as you lift your smart phones up. Feels odd at first but becomes habit quickly.

Keep this in mind when you are sitting in a chair or car as well. Bring the screen to eye level so your head is not slouched forward or too high. This way, you don't have to be in a forward-head posture for a prolonged period of time.

Always use a back support pillow when sitting or driving. By supporting the low back, the head and neck will move back over the shoulders.

- When using a tablet buy a case that allows you to prop up the tablet on a table.
- Keep computer monitors eye level.
- Use a pillow under laptops.
- Use-standing workstations.

So What is Good Posture?

…All you need to do is Straighten Up and Look Forward…

Sort of..

Good Posture: 1,2,3

1) First of all, stick your buttocks out (yes we do not tuck our pelvis) this increases the proper curve of the low back.

2) Second, do a chin tuck gently draw your chin and head back like you are making a double chin. (do not tilt your head in any direction)

3) Third, relax 10-20% in this position. Walk around and try not to be "robot like", you will feel "stiff" at first, but very soon your will be standing tall and with good posture.

If you are sitting slouched with the low back rounded, it is not possible to correct the posture of the neck. To sit correctly maintain the natural hollow (lordosis) that is present in your low back while standing.

It is helpful to use a “lumbar roll” in the small of your back.

McKenzie has a good slim-line lumbar-support cushion, which attaches to most chairs, and can be helpful. Available on Amazon.

Exercises:

The key is to come up with a comprehensive treatment plan that involves both pain relief and muscle strengthening, along with changes to your habits.

Shoulder Blade Squeezes:

How To: Sit up straight in a chair. Your neck should be long and your legs should be at a 90-degree angle.

Drop your shoulders, if tension has caused them to creep closer to your ears. Let your arms hang to your sides.

Squeeze your shoulder blades together, as though you are trying to get them to touch. Hold this for 3 seconds. Slowly release to a relaxed position. Repeat this exercise 10 times, moving in a controlled manner. Increase to holding for 10 seconds and then to doing 2 to 3 sets per day as you get stronger.

The goal of this exercise is to improve muscle strength in your shoulders so that you can raise your chest. It is difficult to have good head posture if your head is not supported by your chest and shoulders. Look down at your shoulders frequently throughout the day. If they are forward from your chest, do a few shoulder squeezes to set them in the right place. You can Google “Rhomboid exercises”, and get more exercises.

Chin Tuck:

How to: Chin tucks strengthen the neck muscles and help you pull your head back into alignment.

How to: Sit tall in a chair and keep your chin parallel to the floor. Without tilting your head in any direction, gently draw your head and chin back, like you’re making a double chin. Tuck in your chin to the point where the voice changes pitch (your voice will start to sound “funny”). At that point, release the chin slightly so the voice clears and stay in position! Be careful not to jam your head back. You should feel a stretch along the

back of the neck. Release your chin forward. Relax and Repeat. You can perform throughout the day. You can choose your start position, whether it is sitting or standing.

Chin Tuck Advanced:

How to: Stand against a wall with a small pillow at your mid-back. Move your head back to touch the wall. Hold for count of 3, do 10-20 reps.

Neck Rotations:

How To: look gently to the left and right, 10 times on each side. Try to perform these throughout the day. (See Neck Exercises previously in book.)

Chin Nods:

How to: Tuck the chin in as far as you can (making a double or triple chin) holding that position for 3 seconds, and then tip the head back as far as you can without releasing the chin tuck and hold for another 3 seconds. Repeat this 2-3x / “set” and perform this multiple times per day.

During this exercise, remember that you are not trying to increase the arc of your neck. You are trying to pivot your head backward in a natural and correct manner. People who have had forward head posture for an extended period of time may find this very difficult to do in the beginning.

Lengthening the Neck:

How To: Standing touch the back of your head to the wall then pretend that there is a string going from the base of your neck to the top of your head.

Pull that string up from the top creating a longer neck, focus on creating upward length in the back of the neck. (You can think of pulling your hair from the crown of your head toward the ceiling.)

Neck Meditation:

How To: Lye on your back on a bed so that the edge of the bed is at the middle of the neck and head is dangling off the bed. Take a tightly rolled up towel (a hand size towel works well) and place it under the neck so that is resting on the edge of the bed so that your head can fall back towards the floor. Take some deep breaths and concentrate on relaxing all your neck muscles. Periodically, slowly rotate your head left to right, right to left, and “feel” the different muscles stretch as you do this.

Remember, the posture you have now took years to develop, so it will take time and practice to restore good posture. Stay with it! It will be worth the effort.

Wondering how you can keep your posture in check while you are using your mobile device? Luckily, there is an app! Florida chiropractor Dean L. Fishman has created an app called Text Neck for Android, which offers immediate real-time feedback regarding posture by indicating weather you are standing in a correct position or not via a red or green light.

Monitoring good posture is a lifetime commitment. With a little effort and a chiropractor on your health care team, you can be assured a future doing things you love to do, rather than suffering from damage and degeneration poor posture can bring.

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In my 35 years of chiropractic service, I have had the honor of helping thousands of patients reduce and often alleviate their pain. Along the way I have been asked the same questions over and over.

- What is causing my low back pain?
- Why does my neck always hurt?
- What exercises can alleviate pain and what exercises can hurt me?
- Ice vs. Heat?
- Does posture cause my pain or does my pain cause bad posture?
- What pillow should I use?
- Is my computer and cell phone use really hurting my spine?
- Do I need an MRI?

This book is a compilation of my past blog articles as well as updated information to address the questions above. I hope this information helps you take back control of your own health to begin living a pain-free life. If you or someone you care about suffers with neck or back pain, this book is for you.

Enjoy your good health!

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