

# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Peter Hobson

## The Lesser-Known Effects of Back Pain

*Back pain can range from mildly annoying to completely debilitating. Its physical effects make even the simplest of movements — getting in and out of a car, picking up items off the floor or stooping down to pet a dog — unbearable.*

*And back pain's effects don't stop at physical. It can have serious psychological, and even financial, effects.*

*How can you end or avoid back pain and its far-reaching effects? Start with chiropractic. When spinal movement is restricted or spinal bones (vertebrae) become misaligned, the result is a common condition known as vertebral subluxation. Vertebral subluxation is linked with a myriad of health concerns, including back pain.*

*Dr. Hobson corrects vertebral subluxations with safe and gentle maneuvers called chiropractic adjustments. Studies show that regularly scheduled adjustments may also help prevent back pain along with a host of other musculoskeletal conditions.*



A French study confirms the efficiency of short-term vertebral manipulation for chronic low-back pain (LBP). Researchers separated a cohort of 64 patients into two groups: half received a series of four vertebral manipulations and half underwent “sham” manipulations. “Patients receiving the true manipulations showed significant improvement in pain,” noted the researchers. Even more impressive, pain symptoms *remained*

improved — as evidenced by follow-up testing two months later (*Ann Readapt Med Phys* 2007;Epub).

The group who received the “sham” manipulation, meanwhile, had absolutely **no** perceived change.

It's vital not to self-diagnose the cause of back pain. Instead, see out a full chiropractic evaluation. In addition to vertebral subluxation, back pain may be sparked by a variety of other disorders.

Regardless of its cause, back pain is more than just a physical condition. It can also have a devastating emotional impact. Research shows the widespread psychological effects of back pain extend beyond the patient to encompass families and employers, “in terms of sickness and absence and for society as a whole, in terms of welfare benefits and lost productivity.” (*Br Med J* 2002;325:534.)

That's why Dr. Hobson urges patients to reject the notion that back pain is “normal” and that nothing can prevent

or mediate its physical and psychological effects.

### Psychological Consequences

Chronic back-pain sufferers — particularly those afflicted with low-back pain — have an elevated risk of developing depression, anxiety and “high levels of neuroticism.” (*Pain Med* 2006;7:217.)



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Worse yet, these psychological and social factors play a major role in worsening the perception of pain and the development of chronic disability (*Br Med J* 2002;325:534).

Canadian researchers note that “beliefs, attitudes, and recovery expectations appear to influence recovery from back pain.” This conclusion was based on a survey of 2,400 adult sufferers. “Most agreed that back pain makes everything in life worse, will eventually stop one from working, and will become progressively worse with age.” (*Spine* 2006;31:2142-5.)

And the longer back pain is present, the worse things get. A recent study concluded that “Those whose low-back pain was longer than five years had the highest scores for depression, general complaints and anxiety.” Longer duration of illness was similarly accompanied by even *higher* levels of anxiety, depression and obsessive-compulsive behaviors (*East Mediterr Health J* 2007;13:335).



That's why chiropractors encourage those with back pain to take immediate action and remain realistic, patient and positive.

As a holistic health-care provider, your doctor of chiropractic believes firmly in the connection between mind, body and spirit.

### Work Productivity Effects

Among a cohort of 1,066 patients — 48 percent reporting back pain and 52 percent reporting other forms of musculoskeletal pain — the severity of

symptoms was directly associated with time lost from work, disability and utilization of health care (*Ann Fam Med* 2006;4.4:341).

Fortunately, chiropractic care is a recognized, effective, therapeutic option for chronic LBP. Canadian researchers also note that follow-up chiropractic helps keep pain at bay (*J Manipulative Physiol Ther* 2004;27:509-14).

### Social Impact

Social participation, subjective happiness and patient satisfaction are “closely correlated” with physical health status, according to Japanese researchers (*Spine* 2003;28:1461-6).

Improving physical health, however — with regularly scheduled chiropractic care — keeps patients of all ages enjoying life.

### Shortened Life Span

Chronic back pain can even shorten your life. Among elderly women, daily back pain “is associated with reduced quality of life, mobility and longevity and increased risk of coronary heart events,” concludes a new report in the peer-reviewed medical journal *Spine*.

These findings are from a five-year investigation of 1,484 community-dwelling Australian women, 70 to 85 years of age. “The adverse health effects of chronic back pain deserve greater recognition,” urge the study's authors (*Spine* 2007;32:2012-18).

### Decreased Self-Esteem

Many individuals with chronic back pain also feel stigmatized: that it's not real or, if it is, it's their fault. According to a report, stigmatizing responses by family, friends, health professionals and the general public appear to have a profound impact on perceptions, self-esteem and behavior.

“The findings suggest that patients with chronic back pain feel stigmatized by the time they attend pain clinics and this may affect their attitudes

and behaviors towards those offering professional help.” (*Disabil Rehabil* 2007;29:1456-64.)

Such was the case of 30 women in Finland who shared their pre-diagnosis history with researchers. “From the beginning of the early discomfort of back pain, the women were sure of its bodily and subjective reality.” (*Soc Sci Med* 2003;57:1045.)

The researchers were astonished at the disrespectful attitude toward back-pain sufferers. “The moral essence of the women's common story was the stigmatizing experience when doctors did not take subjective pain seriously. Instead, doctors' neglectful attitudes became part of the prolonged problem.”

After years of repeated attempts to get help, the women eventually found doctors who took their symptoms seriously. “To be finally diagnosed was a great relief. However, to be taken seriously as a person was considered to be the greatest relief.” (*Soc Sci Med* 2003;57:1045.)

### Don't Suffer in Silence

If you are among the millions of people around the world with back pain, don't suffer in silence or resort to symptom-masking drugs: many of which have potentially serious side effects. Instead, schedule an appointment with our office today. We take vertebral subluxations and related disorders seriously. Along with freedom from pain, you'll receive the attention and respect you *deserve*.

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# OPTIMAL HEALTH UNIVERSITY™

Presented by Jane Sample, DC

## Core Strength, Posture and Back Pain

*At any given time, 15 percent of adults have low-back pain (LBP). To make matters worse: Many simultaneously suffer from chronic widespread pain (Best Pract Res Clin Rheumatol 2007;21:77-91).*

*Research shows that developing strong core muscles reduces LBP — but that's not all. Core strengthening makes all physical activity easier, perfects posture, improves athletic ability and slashes the risk of spinal injuries.*

*Dr. Sample teaches patients that with sound core stability, the muscles in the pelvis, lower back, hips and abdomen work in harmony.*



### Core vs. Abs

Aren't core and abdominal muscles the same thing? Not exactly. Core muscles encompass both abdominal and back muscles.

Abdominal exercises isolate and strengthen individual muscle groups. On the other hand, core muscle exercises work both the abs and the lower back. By working them together, they learn to function better and more efficiently.

### Core Muscles

So, just where are these core muscles located? The major muscles of the core include:

*Transverse Abdominis:* deep in the abdomen, under the obliques (muscles of the waist)

*External Obliques:* on the side and front of the abdomen, around the waist

*Internal Obliques:* under the external obliques, running in the opposite direction

*Rectus Abdominis:* a long muscle that extends along the front of the abdomen (It's often referred to as a "six pack.")

*Erector Spinae:* three muscles along the neck to the lower back

*Multifidus:* deep spinal stabilizing muscles

*Latissimus Dorsi:* large muscles in the mid and upper part of the lower back

### Lessen Low-Back Pain

In desperation, many LBP sufferers turn to nonsteroidal anti-inflammatory drugs (NSAIDs) or other medications, which are loaded with side effects.

Dr. Sample wants you to know that these drugs only mask the pain and fail to solve the underlying problem. LBP sufferers often have weak core muscle strength, along with a condition called **vertebral subluxation**, where spinal bones (vertebrae) are

slightly misaligned or movement in the spine is restricted. These two conditions often go hand in hand, each one further exacerbating the other.

Researchers measured core muscle power in 739 men and 788 women, aged 70 to 79 years, in three muscle groups: lumbar paraspinals, lateral abdominals and rectus abdominis.

Participants reporting higher LBP severity during the past year had less trunk muscle strength in all three areas.

"Findings suggest a link between trunk muscle composition and history of LBP as well as reduced functional capacity in older adults. Improving trunk muscle quality may lead to reduced LBP severity and improved functional status," conclude researchers (*J Gerontol A Biol Sci Med Sci* 2005;60:882-7).

### Strengthen Stability

Weak core muscles may also reduce stability, upping the risk of falls. For seniors, a simple fall can lead to broken bones, loss of independence — and even death. If your ability to balance is not quite ballerina-esque, put core-strengthening exercises at the top of your to-do list.



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Of the 1,527 participants in the study cited above, those with strong core muscles had improved overall physical performance, particularly balance, three years later. Subjects with moderate LBP before the study's onset showed a "significantly stronger" association between instability and core weakness. Participants with moderate to extreme back pain prior to the study exhibited the greatest decline in balance and function over time.



"Older adults with poorer trunk muscle composition (higher fat infiltration) exhibit reduced functional capacity, especially balance, 3 years later. Improving trunk muscle composition may be an important yet overlooked approach to maintain function and potentially reduce balance impairments, particularly in persons with a history of back pain." (*J Gerontol A Biol Sci Med Sci* 2005;60:1420-4.)

### Take a Load Off

It's obvious that a toned core improves athletic performance, strength and endurance. But did you know that having strong abdominals and low-back muscles also takes pressure off the spine?

During physical activity, intervertebral (between the vertebrae) discs endure compressive forces, which can produce fluid loss. This loss decreases disc height, spinal length and overall stature, which is linked to spine loading and LBP.

Research shows that core exercises de-stress the spine, even more than resting does. In three experiments, nine volunteers performed several sets of military presses, which represented a spinal "loading" protocol.

Afterwards, participants rested or performed three sets of abdominal exercises, either on a flat surface or inclined board. Researchers measured

spinal loading after both exercises and the rest period. The result? Both the regular and inclined abdominal exercises produced greater recovery than simple resting.

"Abdominal exercises may be introduced between sets of resistance training to decrease the negative effect of compressive forces imposed during such highly stressing activities." (*Clin Biomech* 2007;Epub.)

### Ease Daily Activity

You don't need to be a world-class athlete or a sports fanatic to benefit from a toned core. Strong core muscles make simple, daily activities more manageable. These muscles assist with everything from getting dressed to reaching for a heavy platter from the cupboard. Core muscles provide postural support necessary to stay balanced when the body is in motion.

### Perfect Posture

How does your posture stack up? Try this posture test: Stand with the back of your head and shoulders touching a wall and your heels six inches from the baseboard. Now try to stick your hand between your lower back and the wall, and then between your neck and the wall. Ideally, you should have an inch or two at the low back and two inches at the neck.

For most people, perfect posture is a challenge. The good news is that core strengthening can have a dramatic influence on postural health.

### Sit Better

On average, most people sit anywhere from eight to 10 hours per day, often the majority of their waking hours. Sitting may be great for working, but it's destructive for LBP — especially if posture slumps.

While sitting hunched, the low back flattens as the pelvis rotates backwards. Disc pressure and spinal load increase. Sitting slumped for long periods will aggravate chronic LBP. However, a strong core vastly improves seated posture.

Ten healthy male volunteers without chronic LBP participated in a short seated posture exercise. Researchers measured spine curvature and core muscle activation (rectus abdominis, external and internal obliques, low-back muscles) using surface electrodes.

As measurements were taken, subjects performed two different seated postures: (1) slumped and (2) sitting with trunk muscles contracted and leaned slightly forward to simulate deskwork posture.

Contracting trunk muscles produced "significantly less" incorrect lumbar curvature and more sacral angle than during slump sitting.

"The results of this study indicated that co-contraction of the trunk muscles during sitting while doing desk work could bring about the correct lumbar curvature, and effectively stabilize the lumbopelvic region, and decrease focal stress on passive structures." (*Electromyogr Clin Neurophysiol* 2007;47:273-8.)

### Core Strength Stacks Up

This office is committed to helping you achieve optimal health through preventive care. Why wait for pain and illness before taking action? Let us coach you toward optimal wellness right now.

Strong core strength is just one way to improve current well-being and prevent future illness. Ask us about simple exercises and programs that can jumpstart you on the road to topnotch strength!

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# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Peter Hobson & Dr. Ryan Blouin BSc. Hon.

## The Chiropractic Solution To Mid-Back Pain

*Chiropractic is well known for its ability to relieve neck and low-back pain. But did you know that it also benefits those suffering from mid-back pain?*

*Mid-back pain ranges from twinges to tenderness and throbbing. Unlike low-back pain, however, which gets lots of press, achy middle backs don't capture as much of the limelight. Until now!*

### Thoracic Area of the Spine = Mid-Back

When doctors of chiropractic refer to the thoracic region, they are referring to the mid-back: home to the thoracic section of the spine.

The mid-back includes 12 pairs of ribs, 12 spinal bones (vertebrae) — each of which is attached to a rib — and a network of nerves, muscles, tendons and ligaments. These structures protect internal organs, including the heart, lungs, liver and spleen.

Most episodes of mid-back pain result from injury, overuse or misuse. Abnormal spinal alignment or degeneration of normal structure can also lead to mid-back pain. "The precipitating mechanical problem commonly leads to inflammation, and the inflammation causes pain." (*Harv Health Lett* 1989;15:5.)

### Vertebral Subluxations In the Thoracic Region

When spinal bones become misaligned or movement is restricted, the result is a common condition known as *vertebral subluxation*.

Vertebral subluxations are linked with a myriad of health concerns, such as carpal tunnel syndrome, headaches, backaches, infantile colic and ear infections.

### The Chiropractic Solution

Your doctor at Hinterland Chiropractic corrects vertebral subluxations with safe and gentle maneuvers called *chiropractic adjustments*.

During a chiropractic adjustment, your doctor at Hinterland Chiropractic slowly moves misaligned vertebrae back into place. This process relaxes the connecting muscles: a vital step in reducing patients' mid-back pain and improving mobility.

Chiropractic adjustments help maintain the integrity of joint cartilage, improve the metabolism of the intervertebral disk and prevent premature degenerative changes (*Neurol Clin* 1999;17:91-111).

### Subluxated Ribs

Even ribs can become misaligned. Subluxations in this area often result in "trigger points" of pain, causing the smooth muscles around the ribs to kink and knot. The sharp, jabbing nature of the pain can mimic heart burn or even a heart attack.

Although the possibility of a heart condition must always be considered when symptoms include chest pain, after cardiovascular disease is ruled out, musculoskeletal involvement "may be the underlying cause of the symptoms in certain patients. When

this is the case, chiropractic adjustment may provide an effective mode of treatment." (*J Manipulative Physiol Ther* 2003;26:108-15.)

What causes a rib subluxation? Sleeping on the same side night after night may result in this painful condition. Other instigators include everyday activities like coughing, lifting or throwing a ball. Chiropractors gently manipulate the subluxated rib(s) back into place.

### Adjustment Addendum

Chiropractic adjustments aren't the only way your doctor at Hinterland Chiropractic helps patients overcome mid-back pain. Chiropractors often prescribe specific exercises and may suggest physical therapy. They also provide education on proper ergonomics — in and out of the office — and relaxation techniques.

### Ergonomically Speaking

If you want a healthy and pain-free back, pay attention to your posture. Scrunching down in a chair while watching television or slumping over a computer keyboard predisposes the thoracic spine to exaggerated curvatures.



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Vertebral subluxations in the thoracic region may lead to mild or exaggerated curvatures — ranging from a mild roll of the shoulders to a severe “hunchback.”

Even five or ten pounds of excess weight can trigger postural misalignments: particularly abdominal weight, which tends to pull the body forward. High heels, fatigue and aging also take a toll on posture.

Regular exercise encourages good posture. It not only relieves stress, but it also strengthens the spine and improves alignment.

Ask the doctor to suggest an exercise regimen aimed at enhancing posture and strengthening vital muscles (such as your abdominals).

### Stress and Mid-Back Pain

A study performed by researchers from the Centers for Disease Control and Prevention; National Institute for Occupational Safety and Health; and the University of Pittsburgh, included more than 6,000 material handlers in 160 newly opened retail stores.

After adjusting for patient history of back problems and work-related lifting, researchers found that the risk of back pain was moderately increased among employees with intensely demanding jobs, high levels of job dissatisfaction and stressful scheduling demands (*Am J Ind Med* 2003;43:179-187).

As providers of holistic health care, chiropractors are committed to helping patients adopt the **chiropractic lifestyle**, a way of life that focuses on preventing health problems, rather than merely masking symptoms with medication. This lifestyle includes stopping stress before it stops you!

The next time you feel stress starting to build, try one or more of the following tension tamers:

- Exercise
- Meditate or pray
- Listen to some favorite music
- Phone a friend
- Go to a movie
- Lose yourself in a good book

### Traumatic Injury

While the largest percentage of mid-back pain falls into the “chronic” category — instigated by daily activities gone awry — traumatic injuries occur as well. And when they do, doctors of chiropractic restore patients to health with the same safe and gentle maneuvers they use for chronic conditions.

Unlike the spine of the neck (cervical spine), which has far less stability and is more prone to injury, vertebrae in the thorax region are considerably more stable.



Supported by their surrounding ligaments, these vertebrae are also protected by the rib cage. “The commonest cause of fractures of the thoracic lumbar spine is hyperflexion with rotation resulting from falls, direct trauma, or road traffic accidents.” (*Br Med J* 1993;307:1552.)

Herniated thoracic vertebrae are less common than cervical or lumbar ruptures. Pain, radiating outward from the mid-back region, is the most frequent complaint (*Am Fam Physician* 1992;45:2162).

If you are experiencing back pain, don’t minimize its significance. Make an appointment with your doctor of chiropractic for a complete examination to rule out any ruptured disks or vertebral subluxations.

### Tackle Trouble

Sports can also result in subluxations

of thoracic vertebrae.

And, fracture is a real possibility in thoracic injuries as well. Scientists explain that because symptoms of trauma in this “relatively immobile area of the spine may be nonspecific, a thoracic spinal fracture may go undetected, possibly exposing the individual to further injury if athletic activities are resumed.” (*Am J Sports Med* 1993;21:57.)

Symptoms indicating the possibility of post-game thoracic injury include:

*Pain in the mid-back  
(made worse by deep breathing)*

*Stiffness*

*Inability to rotate upper body*

If you or your child play any sports, schedule regular chiropractic check-ups. Early detection of spinal injuries is crucial.

### Warning Sign

It’s also important to note that mid-back pain may indicate the presence of osteoarthritis (OA).

A chronic degenerative disorder, OA is characterized by cartilage loss: resulting in pain and stiffness. That’s why it’s important to let your doctor know if you are experiencing either of these symptoms.

In severe cases, OA of the thoracic spine results in “hunchback.” Regular chiropractic care may ward off this disfiguring condition before it takes hold.

Don’t wait for pain to be your “wake up” call. Make an appointment with your doctor today for a complete physical. Your mid-back and entire body will thank you!

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# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Peter Hobson & Dr. Yaron Robinstein

## Back Pain in Seniors: The Chiropractic Solution

*Back pain is a common condition among older adults. And more and more seniors are turning to chiropractic to alleviate and prevent this debilitating disorder.*

*Chiropractors, like your doctor at Hinterland Chiropractic, get results because they understand the unique workings of the aging spine and know how to keep it in top form. Chiropractic care is focused on prevention — and on addressing the underlying causes of pain and disability, rather than masking symptoms with drugs. To this end, your doctor at Hinterland Chiropractic works with seniors to detect the root cause of their back pain and stop it at its source.*

Frequently, the root cause is **vertebral subluxations**. Vertebral subluxations are areas in the spine where motion is restricted or bones (vertebrae) are out of alignment. Your doctor at Hinterland Chiropractic corrects vertebral subluxations using gentle maneuvers called **chiropractic adjustments**.

### Back Pain in Seniors: A Serious and Widespread Problem

Back pain in seniors is more than a mild annoyance; it can have serious

consequences. Back pain and its associated conditions, such as impaired flexibility, can affect an older individual's overall health and ability to live independently.

In fact, a study in the journal *Spine* states that chronic back pain "is a growing source of morbidity among the elderly." (*Spine* 2006;31:E203-7.) Another report looked at 1,484 community-dwelling Australian women 70 to 85 years of age. The researchers found that subjects with daily back

pain reported more problems with mobility and rated their quality of life lower than those with infrequent back pain.

Daily back pain was also associated with greater overall mortality risk and greater risk of coronary heart disease (CHD) mortality and new CHD diagnosis. The researchers concluded that "daily back pain is associated with reduced quality of life, mobility and longevity and increased risk of coronary heart events. The adverse health effects of chronic back pain deserve greater recognition." (*Spine* 2007;32:2012-8.)

In addition, compared with younger individuals, seniors need to be extra cautious about taking pain medications. An older person's body is not as well equipped to handle medication. For example, changes in the kidneys and liver related to the aging process make it more difficult for the body to break down and eliminate drugs. To remain healthy and independent without the use of possibly dangerous medication, many seniors are turning to chiropractic for back pain — and getting excellent results.

### Chiropractic Care For the Aging Spine

The spine changes during the aging process. It becomes less adept at withstanding the daily stresses and strains.

Your doctor at Hinterland Chiropractic understands the aging spine and the ideal ways to care for it — and to slow degeneration.



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And seniors are clearly getting the message that chiropractic is uniquely suited to their health needs. When researchers surveyed 2,055 individuals age 65 or older, they found that 20 percent had visited an alternative care practitioner during the previous year.

Most of these visits were to doctors of chiropractic (*J Amer Ger Soc* 2000;48:1560-5).

In another analysis, 61.9 percent of seniors using complementary and alternative medicine (CAM) sought chiropractic care. Results revealed that the “most prevalent motivations for using CAM were pain relief (54.8%), improved quality of life (45.2%) and maintenance of health and fitness (40.5%).” (*J Gerontological Nursing* 2003;29:20-8.)

### **Lifestyle, Exercise and The Aging Spine**

Doctors of chiropractic also help seniors incorporate lifestyle changes that can mitigate or prevent back pain.

One extensive study analyzed the effect of this lifestyle aspect of chiropractic care on seniors. The report sought to determine whether there were differences between patients who had long-term exposure to these preventive services vs. those who had not. The researchers looked at chiropractic patients (age 65 years and over) who had received health-promotion and prevention services for at least five years, with a minimum of four visits per year (*J Manipulative Physiol Ther* 2000;23:10-9).

The study’s authors found that chiropractors commonly recommended stretching exercises (68.2 percent) and aerobic exercises (55.6 percent); gave dietary advice (45.3 percent); and advised on a host of other prevention strategies, including vitamins and

relaxation. The patients investigated in this study reported making only half the annual number of visits to medical providers (4.76 visits per year) compared with the national average (nine visits per year) for individuals age 65 years and over.

The researchers concluded that this type of care “does not simply consist solely of periodic visits for joint manipulation, but it involves an eclectic host of interventions (eg, exercise, nutrition, relaxation, physical therapy, and manipulation) that are directed at both musculoskeletal and visceral conditions.” (*J Manipulative Physiol Ther* 2000;23:10-9.)

Exercise is one important lifestyle factor related to back pain in seniors. The doctor helps seniors with back pain incorporate appropriate exercise into their daily routine to help keep back pain at bay.

One study looked at the relationship between physical activity and low-back pain (LBP) among 1,387 seniors. The participants were between 70 and 100 at the study’s start. Among the

participants, 83 percent were engaged in light physical activity, and 42 percent of men and 35 percent of women were engaged in strenuous physical activity at least weekly.

Findings revealed that strenuous physical activity was strongly protective against low-back pain. The researchers conclude, “Strenuous physical activity at least once a week is protective for incident LBP in seniors.” (*Spine* 2007;32:76-81.)

### **Optimal Well-being for Seniors**

Senior years should be a time to actively enjoy life. Chiropractic care helps seniors do just that. Take charge of your well-being by scheduling an appointment with our office today!

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# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Peter Hobson

## Psychological Factors and Back Pain

*Every morning it's the same thing. As soon as Joe's feet touch the floor, the pain in his lower back starts up just where it left off the day before. It's bad enough that he's having problems at work. But now he's plagued with low-back pain too.*

*When spinal movement is restricted or spinal bones (vertebrae) become misaligned, it results in a condition known as vertebral subluxation. This common occurrence is the primary instigator of low-back pain (LBP). Dr. Hobson corrects vertebral subluxations with safe and gentle maneuvers called chiropractic adjustments.*

*But in addition to visiting his chiropractor to alleviate his back pain, Joe may want to visit a career counselor as well. Joe's work stress could actually be playing a role in his LBP.*



Psychological distress can make an already bad back situation worse by creating negative connections between the mind, body and spirit. Dr. Hobson knows that there is an undeniable connection between emotional and physical health. Consequently, our chiropractic office focuses on teaching patients to consider the emotional as well as physical triggers of disease.

One researcher explains that "in the past century, the [non-chiropractic] medical profession has taken pride in the rapid and often effective advancement of diagnostic technology, surgical interventions, and pharmaceutical remedies. However, it has also witnessed the unraveling of the woven connection among mind, body and the

human soul." (*J Altern Complement Med* 2003;9:563-70.)

Addressing the whole person is a founding principal of chiropractic: a characteristic that sets this revolutionary approach to wellness apart.

Dr. Hobson is committed to helping patients adopt the **chiropractic lifestyle**, a way of life that focuses on preventing health problems rather than merely masking symptoms with medication or allowing psychological pain to erode wellness.

### Studies Link Back Pain and Psychological Distress

It's no surprise to Dr. Hobson that research shows that emotional strain leads to back pain.

"Psychological distress more than doubles later risk of low back pain," according to British researchers who reviewed the health records of 5,781 people born in 1958. All of the 571 people who suffered from low-back pain (LBP) between the ages of 32 and 33 had suffered some form of emotional stress in their early 20s (*Am J Public Health* 2001;91:1671-8).



And, when researchers in Russia conducted physical and psychological tests on 337 patients suffering from back pain — and compared the results with 40 pain-free subjects — they discovered that those with back pain had a higher frequency of emotional tension than those not in pain (*Zh Nevrol Psikhiatr Im S S Korsakova* 2002;102:3-9).

Another study, this time by investigators in Denmark, revealed that "populations at risk [for LBP] would consist of people with a weak psychological and physiological constitution, who more easily than others may develop long lasting back pain." (*J Electromyogr Kinesiol* 2004;14:129-33.)



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## Work Stress

Most people spend approximately one-third of their time at work. If that time is marked by unhappiness, stress and frustration, the result can be migraines, depression, anxiety, chronic heartburn and a host of other physical ills: including back pain.

In fact, some studies suggest that poor work satisfaction is the No. 1 risk factor for back pain.

For instance, researchers in Norway surveyed 4,266 nurses' aides. Prior to receiving their first questionnaire in 1999, the group reported either no LBP or minimal LBP. Three months later, 3,808 (89.3 percent) completed a second questionnaire, and 15 months later, 3,651 (85.6 percent) completed a third questionnaire.

In addition to organizational, psychological and social work factors — such as being on the night shift — researchers learned that a perceived lack of support from superiors “and perceived lack of a pleasant and relaxing or supporting and encouraging culture in the work unit, are associated with an increased risk of intense low back symptoms and LBP-related sick leaves ...” (*Occup Environ Med* 2004;61:398-404.)



An even larger study in Japan, which included 6,490 male and female school personnel, revealed that “low social support and low job satisfaction were related to LBP of school nurses despite low physical loads.” Male teachers — who worked with handicapped students and experienced more physical and emotional stress — had “significantly higher LBP prevalence.” (*Ind Health* 2002;40:266-71.)

## ‘Hidden’ Stress

It’s possible for both introverts and extroverts to have all of their psychological ducks in a row. But beware: Extroverts can cover up psychological pain by pretending (even to themselves) that life is just one big bowl of cherries. Introverts may do the same thing by fading back into the wallpaper of life.

If you are suffering from LBP — whether you are an introvert or extrovert — stop for a moment and take your psychological pulse. Is everything really OK, or are you simply covering up what’s bothering you?

Another question to ask yourself — Are you holding a grudge? If so, this “hidden” stress could be contributing to LBP. New research suggests that many patients with chronic LBP have difficulty forgiving people they perceive as having unjustly offended them in some way. Researchers from the Duke University Medical Center in Durham, NC, say that there is a definitive relationship “between forgiveness and pain, anger and psychological distress in patients with chronic low back pain.” (*J Pain* 2005;6:84-91.)

## Counter-Productive Coping Strategies

Cigarette smoking and overeating, two habits often used as coping strategies, further up the chances of developing LBP.

One study included 292 health-care workers from Spain, 40 percent of whom smoked. Researchers concluded that “smoking is associated with a higher risk of sickness absence among healthcare workers, particularly due to back pain.” (*Public Health* 2005;119:144-9.)

Another response to emotional stress — overeating — is also linked with back pain: particularly when it’s combined with cigarette smoking. In 1973, a group of 902 Finnish workers completed questionnaires regarding their lifestyle, work history and health. Researchers from the Finnish Institute of Occupational Health then compared that information with hospital admit-

tance records from 1973 to 2000. Heavy smoking and obesity were listed as the top contributors to disorders affecting the discs of the spine (*Spine* 2003;28:1860-8).



## Chiropractors Care About the Whole Person

Are you suffering from LBP? If so, make an appointment with your doctor of chiropractic today. Because regardless of what is sparking your LBP, one thing is certain: Chiropractic care can help! While you are healing, our patients are encouraged to identify and address any underlying stress or emotional factors that may be playing a role.

Chiropractic care has proven successful time and time again in preventing LBP. For instance, a review of 119 patient files from a private Canadian chiropractic clinic found that those who sought care for “mechanical neck pain or LBP had statistically significant reductions in their pain-related disability after treatment.” (*J Manipulative Physiol Ther* 2000;23:307-11.)

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# OPTIMAL HEALTH UNIVERSITY™

Presented by Jane Sample, DC

## Shoulder Pain: The Spinal Connection

*Not surprisingly, shoulder pain can result from a bump, bruise or torn rotator cuff — a separation within the quadruple group of muscles encasing the shoulder joint. What may surprise you, however, is that misaligned cervical vertebrae (bones in the spine of the neck) can also spark shoulder pain.*

*The good news is that chiropractic care from Dr. Sample may help. An exciting new large-scale review study shows that chiropractic care is effective in relieving shoulder pain. Read on to learn more.*



### The Spinal Connection

There are seven cervical vertebrae, numbered C1 through C7. When these vertebrae become misaligned, the result is a condition known as **vertebral subluxation**. Nerves become trapped between the bony surfaces of the vertebrae: resulting in pain and/or numbness. Misalignment of vertebrae also upsets the natural balance of surrounding muscles, tendons and ligaments.

Dysfunction related to the cervical spine leads to stressed muscles not only in the neck, but also in the entire shoulder girdle: also known as the pectoral girdle.

The primary function of the pectoral girdle is to provide an attachment point for the numerous muscles that allow the shoulders and elbow joints to move. When nerves become trapped — due to vertebral subluxation — muscles cease to function properly because they're no longer

getting their biomechanical instructions.

### Don't Guess at the Cause

Dr. Sample notes that proper diagnosis of shoulder pain is crucial. For instance, one study followed a 30-year-old female patient suffering from a combination of intense shoulder, bicep and tricep pain — along with numbness in her thumb, index and middle fingers. Her family physician diagnosed the pain as tendonitis and told her to ice and “rest” the shoulder. After three weeks of excruciating pain, she sought a second opinion and learned she had two herniated cervical discs: C6 and C7.

Physicians “need to understand diagnostic and treatment strategies for common causes of shoulder pain,” say researchers from the University of Wisconsin Medical School. They suggest that examination of the shoulder should include inspection, palpation and evaluation of range of motion (ROM).

“In addition, a thorough sensorimotor [related to both sensory and motor activity] examination of the upper extremity should be performed, and the neck and elbow should be evaluated.” (*Am Fam Physician* 2000;61:3079-88.)

### Uncovering the Root Problem

Dr. Sample carefully examines patients for the underlying cause of shoulder ailments, including misalignments in the spine of the neck. “A thorough history and detailed physical examination will, in most cases, identify the cervical spine or the shoulder as the primary source of the disease,” say researchers (*Clin Orthop Relat Res* 1999;368:105-13).

Using safe, gentle maneuvers known as **chiropractic adjustments**, Dr. Sample realigns vertebrae: correcting the chain of events that may induce spine-related shoulder pain.

### New Review Study: Chiropractic Relieves Shoulder Pain

A large review study reveals that there is a fair amount of evidence indicating that chiropractic adjustments alleviate shoulder pain.

As part of the analysis, researchers searched five major databases: 1) The Cumulative Index of Nursing Allied Health Literature; 2) PubMed; 3) The Manual, Alternative and Natural Therapy Index System; 4) Physiotherapy Evidence Database; and 5) The Index to Chiropractic Literature.



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Out of 211 studies found, 35 met the researchers' strict inclusion criteria. After pooling the data, they concluded that there is fair evidence supporting the use of chiropractic adjustments for shoulder disorders (*J Manipulative Physiol Ther* 2011;34:314-46).

### Additional Research

Based on a study of 150 patients with shoulder pain, researchers in the Netherlands concluded that manipulative therapy of the pectoral girdle accelerates recovery of shoulder symptoms (*Ann Intern Med* 2004;141:432-9).

Another group of researchers reached a similar conclusion. "A manual physical therapy approach addressing impairments of the cervical spine and upper limb neural tissue may lead to improved outcomes in the management of patients with shoulder pain and disability." (*J Orthop Sports Phys Ther* 2007;37:342-50.)

### The SCM/SAN Link

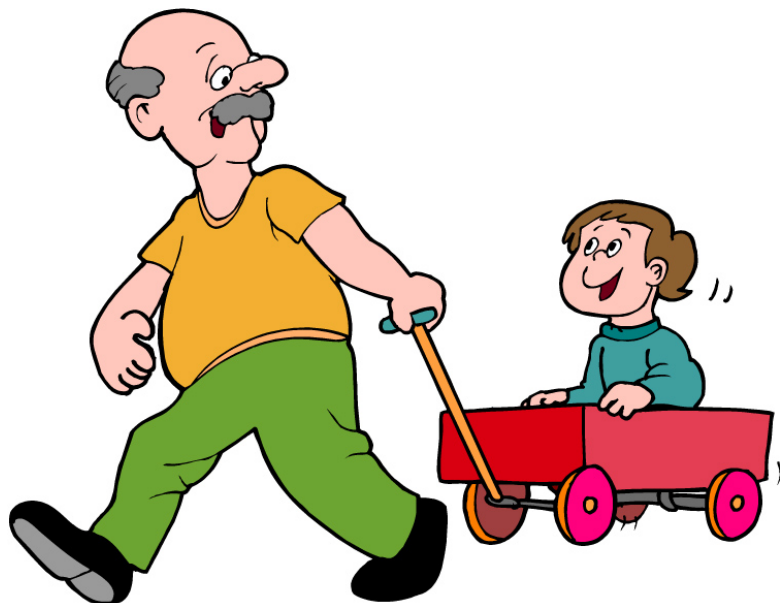
The sternocleidomastoid (SCM) muscles — one on each side of the neck — allow you to turn your head and bend it forward. They also support your head as you get up from lying down. The spinal accessory nerve (SAN) connects the central nervous system with the SCM and trapezius muscles, which are responsible for several actions, including shoulder elevation.

Studies show a distinctive link between shoulder pain and dysfunction of the SAN (*Br J Oral Maxillofac Surg* 2003;41:7-11).

Researchers theorize that vertebral subluxations in the spine may influence the health of this nerve.

### Suprascapular Nerve

Entrapment of the suprascapular nerve is a "rare peripheral neuropathy, which can be easily overlooked in the differential diagnosis of shoulder pain and dysfunction. Entrapment can occur at several different locations along the pathway of the nerve." (*Ortop Traumatol Rehabil* 2007;9:68-74.)



One of several nerves that originate in the neck, the suprascapular nerve — a union of the fifth and sixth cervical spine nerves — passes through a small groove-like opening in the scapula: the bone that forms the shoulder blade.

The primary symptoms of suprascapular nerve entrapment include pain, weakness and softening of the muscles.

Although rare, "accurate diagnosis facilitates appropriate and timely treatment." (*Ortop Traumatol Rehabil* 2007;9:68-74.)

### Posture and Shoulder Pain

Did you know that improper posture can also spark vertebral subluxations, neck and shoulder pain? For instance, keeping your neck straight and stiff can result in reduced ROM and a condition known as "military neck."

Hunching over a desk — whether at school, work or home — can similarly wreak havoc on your spine. Nerves become trapped, resulting in pain and weakness throughout the neck and upper extremities. Researchers in Finland tracked the posture and symptoms of 180 desk-bound employees (with no previously reported neck pain) for one year. By the year's end, 34.4 percent had reported mild to severe neck pain (*Occup Environ Med* 2003;60:475).

Elevated arm postures are just as damaging. Case in point: A Swedish study that involved 235 orchestra musicians. The group was categorized into four exposure groups according to arm position and duration of active playing time (ranging from two to three hours per workday). The researchers concluded that "Musicians working in an elevated arm position (e.g., violinists, violists, flutists, and trumpet players) had a higher prevalence of neck-shoulder pain than those working in a more neutral position." (*Am J Ind Med* 2007;50:370-6.)

If you are a musician — or have a child who plays a musical instrument requiring extended arm elevation — talk to the doctor about ways to prevent repetitive shoulder, neck and spine injury.

### Don't Delay

Are you or a loved one suffering from shoulder pain? Even if it's just an occasional "twinge," make sure to schedule a chiropractic checkup.

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# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Peter Hobson & Dr. Ryan Blouin BSc. Hon.

## The Chiropractic Solution to Sciatica

*Sciatica is as tricky and deceptive as a sly magician: Sciatic pain often alters between severe and constant to mild and intermittent; can affect one leg, both, or switch from side to side; and it may even masquerade as low-back pain for months until more characteristic sciatic pain begins.*

*But, fortunately, chiropractic sheds light on these sciatic “tricks.” Although its source may appear deceiving, your doctor at Hinterland Chiropractic finds that the root cause of sciatica is usually in the spine.*



### The Sciatic Nerve

The sciatic nerve is the longest nerve in the body. It runs from the pelvis through the hip area and buttocks and then courses down the back of each leg.

The term “sciatica” refers to the inflammation of this nerve and the pain that radiates along its course. Sciatica may feel like a leg cramp or as numbness, burning or a pins-and-needles sensation.

Sciatic pain can also be excruciatingly piercing or stabbing. In one study of patients with chronic pain, sciatica sufferers endured “significantly

higher” pain scores and limitation in daily living activities than any other group (*J Manipulative Physiol Ther* 2002;25:162-7).

### The Root of the Problem

Although sciatic pain is generally in the legs, your doctor at Hinterland Chiropractic wants patients to understand that the root cause is often compression of the sciatic nerve root, which is the beginning of the sciatic nerve as it exits the spinal cord in the low back.

Nerve root compression is frequently the result of one of two conditions: **vertebral subluxation** (misalignment of spinal bones) or **sacroiliac subluxation** (misalignment of pelvic bones). When the spinal or pelvic bones are even slightly out of place, spinal movement is restricted, which in turn irritates the muscles, discs and the nerve root — causing pain.

Other causes of sciatic nerve compression include herniated spinal discs and piriformis syndrome (inflammation of the piriformis muscle in the buttocks).

Often, more than one of these four causes occur simultaneously, so it is vital to identify and address all factors. The good news is that research shows that chiropractic care is effective at alleviating all four of the common causes of sciatic pain.

For instance, one study compared chiropractic care for sciatica to bed rest, massage, electrical muscle stimulation, nonsteroidal anti-inflammatory drugs (NSAIDs) and a muscle relaxant. Patients in the chiropractic care group experienced significant reduction in the length of care, faster improvement from symptoms, less disability at work and fewer missed work days, compared with all other groups (*Ann Swiss Chiro Assoc* 1989;9:133).

Read on to learn how the chiropractic care your doctor at Hinterland Chiropractic addresses all four of the major causes of sciatica.

### Vertebral and Sacroiliac Subluxations

Doctors of chiropractic correct both vertebral and sacroiliac subluxations with **chiropractic adjustments**. These maneuvers, which are safe and effective, successfully realign spinal and pelvic bones.

Research shows that chiropractic adjustments are highly successful for sciatic pain associated with vertebral and sacroiliac subluxations.

One study consisted of 576 patients from different chiropractic clinics who suffered from sciatica. All subjects reported pain in the low back, legs or both. Researchers compiled statistics on the examination procedures, diagnoses, types and results of care, number of days of care and the number of chiropractic adjustments to render “clinical improvement.”

Patients averaged 43 days to “attain maximum improvement” after an average of 19 chiropractic office visits (*J Manipulative Physiol Ther* 1984;7:1).

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Another study enrolled 2,945 patients with sciatica and low-back pain, of which 268 patients suffered chronic low-back pain and radiating pain below the knee. Patients visited either one of 51 different chiropractic clinics or one of 14 general practice offices.

Researchers assessed patients' satisfaction with care and low-back status via multiple questionnaires at various intervals. Also, at a one to three year follow-up, patients rated their self-management attitudes and behaviors.

The subgroup of patients with chronic low-back pain and radiating pain below the knee "noted a long-term outcome advantage" for chiropractic vs. medical care.

The researchers found that chiropractic patients "were characterized by greater self-efficacy motivation." Over 55 percent of the chiropractic group employed strategies, such as exercise and self-care education, to reduce symptoms. The medical care cohort was far more likely to choose bed rest and rely more on family and friends for support during periods of back trouble.

"The chiropractic encounter may have enhanced patients' self-efficacy motivation, leading to better coping abilities and better pain and disability outcomes," concluded the researchers (*J Manipulative Physiol Ther* 2001;24:543-51).

### **Herniated Discs**

Spinal discs, which are sandwiched between each vertebra, can also put pressure on the sciatic nerve root.

The intervertebral (between vertebrae) discs give the spine its flexibility and act as shock absorbers between each of the 24 spinal bones. The outer layer of each disc is tough and fibrous, while the inside material is spongy.

If discs degenerate or are subject to trauma, the soft center may bulge to one side. This condition is known as a herniated disc.

Sciatica ensues as the nerve root be-

comes trapped against the spinal canal by the disc bulge. The good news is that new research shows that chiropractic care can help sciatica caused by "slipped" or prolapsed discs.

One study, performed in Italy, included 64 men and 38 women ranging in age from 19 to 63 years. Patients had acute back pain and sciatica with herniated discs ("disc protrusion"). All subjects reported pain that was radiating or at least moderate or stronger. While 53 of the patients received chiropractic adjustments, 49 underwent sham or "simulated" manipulations.

Chiropractors performed the manipulations or simulated manipulations five days per week. The number of sessions depended on pain relief, but was limited to 20. Patients were assessed at admission and at 15, 30, 45, 90 and 180 days. At each visit, the chiropractors used standard techniques to assess pain levels and improvement.

The good news? Patients receiving genuine chiropractic adjustments enjoyed significant improvement in pain severity and duration beyond patients undergoing simulated adjustments (*Spine J* 2006;6:131-7).

In another study, a 23-year-old woman suffered from chronic, unremitting symptoms of lower back pain and left-leg pain. After receiving chiropractic care "the patient responded well with a complete resolution of her symptoms and a restoration of her lumbar lordosis [over-exaggeration of the low back curve (or swayback)]." (*J Manipulative Physiol Ther* 2004;27:579.)

### **Piriformis Syndrome**

The piriformis muscles extend along both sides of the lower buttocks. Sciatic nerves travel beneath the piriformis muscle on their way from the spine to the back of each leg.

Piriformis syndrome occurs when the muscle becomes inflamed, forcing pressure on the sciatic nerve and trapping it against the bones of the pelvis.

Doctors of chiropractic often employ a variety of all-natural interventions for

piriformis syndrome. This combination approach is highly effective.

### **What Doesn't Work**

Unlike chiropractic care, research shows that traditional medical care for sciatica is not effective.

For instance, one study of 183 sciatica patients found that bed rest was no more effective than "watchful waiting." After 12 weeks, patients who were assigned to bed rest had no more improvement than those who were in a "watchful waiting" group. Researchers concluded that there was "no evidence that bed rest is an effective treatment for sciatica." (*NEMJ* 1999;340:418.)

Another standard treatment involves masking the pain with continual doses of nonsteroidal anti-inflammatory drugs (NSAIDs), such as prescription painkillers or over-the-counter drugs like aspirin, Advil, Motrin and Aleve. Although these drugs may seem benign, overuse is linked to chronic headaches and migraines, gastrointestinal problems, heartburn and ulcers.

### **We're Here to Help**

If you currently have back or leg pain, it's vital to avoid self-diagnosing. The origin may lie in the sciatic nerve root or may be related to another cause, unconnected to the sciatic nerve.

Schedule an appointment with the doctor right away to discover the underlying problem. The doctor is committed to identifying root causes of impediments to wellness, rather than masking symptoms with unnecessary medication or surgery. Pain is the body's way of signaling distress; let us help you pinpoint the cause.

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