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Chiropractic May Be the Answer to Your Health Problems Too!

“We never know how far reaching something we may think say or do today will affect the lives of millions tomorrow.”

- B. J. Palmer

My Road to Chiropractic

My father died when I was nine years old. When I was a young child he suffered from bursitis, joint pain, and shoulder pain. These can be symptoms of a heart condition. He sought conventional medical attention and was given arthritis medication and all types of other pills. He continued following traditional medical treatments, but he died anyway!

Other members of my family and people who were dear to me who had illnesses also consulted mainstream medical professionals. They would go from doctor to doctor looking for answers, looking for help but receiving little beneficial results or having their conditions worsen. But it wasn't until I was preparing for graduate school when I was injured while playing handball and immediately felt the left side of my body lose function that I realized the limitations of the medical profession. I suffered from paresthesia. This is a tingling, burning sensation that for me would get so intense I would be unable to clench my fists. Sometimes, I would be unable to button my shirt. Sometimes I would feel shooting pain that would wake me up in the middle of the night. My options were the same as everyone else I'd known who suffered any serious illness; drugs and surgery. That's when the path of my life changed.

I had been a sickly child ever since receiving the traditional vaccinations that are part of our society. Until that point I was healthy. After vaccinations, I was plagued with allergies and migraine headaches. I received standard medical care but never got good relief. The side effects from the drugs were numerous. After my handball injury, my mother convinced me to try an alternative approach, Chiropractic. This new doctor did an exam, took some x-rays, and then 'adjusted' my spine. The adjustment didn't

hurt, and I got relief. Soon afterwards I regained normal use of my hands. I was so impressed with the results of care that I began to study chiropractic. I learned that chiropractic is safe and effective in bringing your body back to its natural state of health and wellness.

Chiropractic care is a choice many people have begun to seek especially as they consider alternatives to the medical practices of drugs and surgery.

In the past if you asked a medical doctor about chiropractic, the response may not have been quite positive. Today, however, many medical doctors not only refer their patients for chiropractic, they also choose this safe and natural care for themselves and their families as well, because chiropractic education and research have come a long way.

We spend as much time as a medical doctor getting our degree. We also are well versed in the sciences including anatomy, physiology, nutrition, and other studies that are relevant to the advancement of a proactive wellness model of healthcare.

The Educational Journey

A chiropractor is well educated, with study emphasis on science. In fact, the requirements to become a chiropractor are extremely rigorous and are as or more intense than many other healthcare professions.

Being accepted to chiropractic school is no easy feat. To do so, a prospective chiropractor must have completed two to four years of undergraduate classes studying science. This depends on the chiropractic college and the state where the student wishes to practice. This is similar to the

requirements of medical students before entering medical school. Once accepted into the school, another four years of schooling is required and the focus on science continues.

According to the Center for Studies in Health Policy, the sciences taken by doctors of chiropractic and medical doctors are as follows:

Subject	Chiropractic Schools		Medical Schools	
	Hours	% of Total	Hours	% of Total
Anatomy	570	40	368	31
Biochemistry	150	11	120	10
Microbiology	120	8	120	10
Public Health	70	5	289	24
Physiology	305	21	142	12
Pathology	205	14	162	14
Total Hours	1,420	100	1,200	100

The first two years of chiropractic school consists of intensive study in the following subjects:

- Anatomy
- Physiology
- Public health
- Microbiology

- Pathology
- Biochemistry

The later years are more specialized including such courses as:

- Chiropractic philosophy and practice
- Chiropractic diagnosis
- Adjusting methods

As well as deeper training in anatomy, physiology, rehabilitation, nutrition, diagnosis, x-ray, and a variety of therapeutic techniques that aren't taught in other health care fields.

I am a graduate of Iowa State University, and a Magna Cum Laude graduate of Palmer College of Chiropractic who has years of additional training in Function Neurology, Acupuncture, Oriental Medicine, and Naturopathy.

What Is Chiropractic?

Studies have shown that in many cases chiropractic care is beneficial and typically more effective than drugs or surgery.

Chiropractic facilitates your body and brain to communicate without any interference.

If you were to ask a patient of chiropractic what it has done for them you might hear something like, "Chiropractic has brought me back to a life without pain and with freedom of movement that I haven't experienced in a number of years" or "I have noticed incredible changes in my body, mind, and spirit since starting chiropractic."

What wonderful testimonials! And these are but a few of the things you might hear from someone that has tried chiropractic care. However, despite the glowing recommendations, it still leaves you wondering, “What exactly is chiropractic?”

Chiropractic Defined

Here is chiropractic in a nutshell.

1. Your body is a self-regulating, self-maintaining, and self-healing organism.
2. Your brain and the rest of your nervous system in a very complex manner run and heal your body.
3. Any form of stress interfering with the normal function of your nervous system keeps your body from functioning and healing properly, leading to symptoms and disease.
4. A chiropractor is trained to find this interference and stimulate the nervous system allowing the body to function more effectively and heal itself.

So, a chiropractor is a doctor that can locate problems within the nervous system, determine if vertebral subluxations are present, and reduce them through the use of specific adjustment techniques.

Words Defined: Subluxation

An interference of the nervous system due to a misalignment and/or abnormal motion of spinal and other joints in the body which causes improper communication with associated organs, muscles, and tissues.

Chiropractic is a science, art, and philosophy. A diagnosis is made through testing and observation and then care is performed based on experience and training.

This method is the same process that a medical doctor uses. The difference is that a medical doctor treats with drugs and surgery in order to deal with the symptoms of pain and illness. Chiropractic, on the other hand, works on the root cause by making adjustments to reduce interference in the nervous system.

In addition, we care for patients who suffer from conditions that conventional medicine has been unable to resolve. Our expertise and experience in neurological conditions over the past 37 years has provided many patients with relief and results that they may never have found elsewhere.

And what about the art and philosophy? Chiropractic is the art of restoring the body to its natural state utilizing many different techniques and styles. Improved well being is simply a wonderful side effect.

The chiropractic philosophy is the understanding that the body wants to function correctly and be as healthy as possible and that our bodies know how to do this and will do this as long as there is no interference.

Subluxations, irritation of the nerves, causes interference. Research shows that irritation of spinal nerves causes the body to break down. Reducing that irritation allows the body to begin to heal. Chiropractic's goal is to remove that problem.

Through the Years

Chiropractic as a profession started in Davenport, Iowa at the end of the 19th century by a man named DD Palmer. DD Palmer had been taught a new way of healing called magnetic healing and opened an office.

After after opening his practice, he met the janitor that worked in his building and found out that he was nearly deaf. The janitor, Harvey Lillard, explained that he had lost his hearing one day when he had bent over for a long period of time and then straightened up. When he straightened, he heard a pop in his upper back and hadn't been able to hear since.

Dr. Palmer examined his back and noticed that there was a bump on the spine that appeared to be an out of place vertebrae. Mr. Lillard explained that he began to notice that bump about the time he lost his hearing. DD Palmer put two and two together and believed that the two incidences were related. He convinced Mr. Lillard to allow him to push the bone back in place. Once in place, Mr. Lillard could hear again.

From then on, DD Palmer no longer practiced magnetic healing, but began to help replace bones in the spine that were out of alignment. This was the birth of chiropractic. He was instrumental in developing the philosophy of chiropractic. Within two years Dr. Palmer opened the first school of chiropractic.

DD Palmer once said, "I am not the first person to replace subluxated vertebrae, but I do claim to be the first person to replace displaced vertebrae by using the spinous and transverse processes as levers...and to develop the philosophy and science of chiropractic adjustments."

What Dr. Palmer meant was that he was not the first one to understand the relationship between health and the spine. Hippocrates, the man known for the oath that medical doctors take, advised, "Get knowledge of the spine, for this is the requisite for many diseases."

Herodotus, who lived during the same period of time as Hippocrates, became famous for curing diseases by correcting spinal abnormalities. He did so through exercises and manipulation.

Aristotle was not impressed. In fact, he would fit right in with many medical doctors of today. "He [Herodotus] made old men young and thus prolonged their lives too greatly."

Hua Tuo, an ancient Chinese physician who lived in the Eastern Han Dynasty, practiced spinal manipulation. But until Dr. Palmer, the care of the spine was not well understood.

But until Dr. Palmer, the treatment of the spine was not well understood.

As word spread about the healing of Harvey's deafness, patients began to come to Dr. Palmer for a variety of illnesses. Dr. Palmer found that spinal adjustments helped such things as:

- Flu
- Sciatica
- Migraine headaches
- Stomach complaints
- Epilepsy
- Heart trouble

He began to understand that fixing the spinal misalignments, subluxations, got rid of nerve interference. Once the interference was gone, the patients' complaints began to resolve.

Although the success was phenomenal, chiropractic was not accepted. The news media called Dr. Palmer a charlatan. The medical community criticized his methods and accused him of practicing without a license. He was even put into jail once for practicing chiropractic.

Dr. Palmer was not alone, however, in his enthusiasm about chiropractic. His son, Bartlett Joshua (BJ), continued his father's work. He took what his father had done and helped to define it and explain it as a health care system. He also was influential in getting chiropractic recognized as a licensed profession.

Today there are over 60,000 licensed Doctors of Chiropractic in the United States and thousands more throughout the rest of the world. Millions of people each year seek chiropractic care to improve their health and well-being. In fact, chiropractic is one of the largest forms of natural health care today.

Even though chiropractic has advanced tremendously in the last century, the philosophy is still the same. The body can heal itself without drugs and surgery if the interference is removed.

The Brain–Spine–Nerve Connection

In order to truly understand what chiropractic does, it will help if you understand how the nervous system works.

It all starts with the brain. It will help if you think of the brain as a computer that controls the body. The nervous system is the network that sends the messages from the brain to the rest of the body.

Now, here is where the spine fits in. The nervous system sends these messages via the spinal cord. The spinal cord is not your actual backbone (vertebra), but the cord that runs within the bones in your back. It contains threadlike nerves that branch out to every organ and body part.

When a message comes in to the brain, the brain then tells the body how to react. For instance, if you touch a hot stove with your hand, the pain message is sent to your brain, where the signal to quickly pull away is sent through the spine and out to the hand. All of this is done very quickly.

Although you can take several years of study to understand the nervous system completely, all you really need to know is that every cell, tissue and organ of your body is controlled by your nervous system through communication. When this communication is working correctly, you are healthy. When it is interfered with, this causes dysfunction leading to disease.

This brain-spine-nerve connection is so vital to life. That is why you need a chiropractor!

Subluxations Explained

We've talked some about subluxations. And from the information about the nervous system, you have seen that a subluxation causes a breakdown in the body.

To enjoy wellness, your nervous system must be functioning at its optimal level. To do so, it must be free of subluxations. Therefore, the goal of chiropractic is to reduce subluxations so that the body can return to its highest level of health. Only chiropractic care can help a person achieve this level of wellness, because only chiropractors are trained to detect, locate, and reduce subluxations.

So, how and why do subluxations occur? There are many different reasons, but they all fall into three main categories.

- **Physical:** These subluxations are due to trauma or repetitive movements. For instance, a fall, bad posture, typing or lifting something incorrectly can cause a physical subluxation.
- **Emotional:** These subluxations are due to emotional stress. When you are feeling grief, anger or fear, your muscles contract in ways that are not normal. If you are under repeated stress, these muscle contractions can cause unusual posture and lead to subluxations.
- **Chemical:** Chemicals that are harmful to the body cause the nervous system to become overwhelmed. This causes nerve function to be imbalanced. When the nerve is a motor nerve, a nerve controlling a muscle, the muscles will contract harder on one side than on the other. This will cause a subluxation. Chemical causes include certain foods, alcohol, prescription or recreational drugs, and pollution.

Most people have subluxations and don't know it because they occur before the pain or any other warning signs. In many ways, subluxations are a silent killer – they begin to deteriorate your body without giving you any symptoms.

Therefore, how you feel is a poor indicator of how healthy you actually are. For example, do we know what undetected cancer or heart disease feel like? Of course not, they are undetected, but the body is in a state of disease where outward symptoms have just not developed yet.

The only way to identify subluxations is through a chiropractic exam. Such an exam will show the locations of any subluxations as well as let you know how severe the subluxations are. So, even if you aren't experiencing pain, having a check-up on a regular basis will help you remove subluxations early and keep your body running smoothly.

Although you may not have any symptoms at first, eventually subluxations will cause problems that you can see and feel. Some of the most common signs and symptoms include:

- Pain, tenderness, soreness or stiffness of the neck
- Pain, tenderness, soreness or stiffness of the back
- Headaches/Migraines
- Feeling dizzy
- Muscle spasms in the spine
- Tightness or weakness of spinal muscles
- Loss of range of motion in the neck and back
- Pain, numbness or tingling in the arms or legs
- Pain or stiffness in the joints
- Lack of energy
- Inability to heal quickly
- Poor overall health

How Does Chiropractic Work?

Chiropractic is more than just a “structural” approach to health. Yes, it is true that a chiropractor will reduce subluxations caused by structural issues, and yes, it is true that this helps to restore health and wellness.

But, in addition to structural components, chiropractic focuses on the whole picture. It does not just focus on the bones and nerves, but on your life. While speaking with your chiropractor, you will be asked about your spine, but also about how well you eat, if you exercise, your stress level and ways you reduce stress, your family life and so on.

Then, using all this information, your chiropractor will create a care plan based on correcting the cause of your subluxations and possible associated symptoms.

This makes perfect sense. For instance, if you have a leaky tire on your car, do you go to the gas station and fill it up day after day, or do you go to the tire store and have it repaired or replaced? The same is true for pains you may suffer. Why would you take pain meds daily when you can reduce the subluxation and get to the root of the problem?

When you have a subluxation, your chiropractor will reduce it through an adjustment to the spine. This adjustment puts your body back into alignment, allowing communication between the body and the brain to flow freely.

Subluxations often do not go away and stay away with just one adjustment. Several adjustments over the course of a few weeks to several months may be necessary. Remember, chiropractic isn't about simply relieving pain on

a temporary basis. The goal is to fix the problem, keep it fixed, and keep it from happening again.

There are many different types of chiropractic procedures and techniques. Some techniques work better for some people and others for other people. It is important to find the one that works for you and use it as part of your overall health care strategy.

So, there you have it – you now know what chiropractic is and what it does. As you learn more and more, you will understand its effectiveness and its growing popularity.

As the American Chiropractic Association website states:

“As evidence supporting the effectiveness of chiropractic continues to emerge, health care consumers are turning in large numbers to chiropractic care — a form of health care aimed primarily at enhancing a patient's overall health and well-being without the use of drugs or surgery. More than 22 million people visited doctors of chiropractic last year for a variety of conditions, and more and more medical doctors are referring their patients to doctors of chiropractic.”

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**Can You Name the
Safest Lifestyle Option
for Health?**

If you answered chiropractic, then you are right. It is recognized as one of the safest drug-free, least-invasive therapies available for the treatment of back pain, neck pain, joint pain, headaches and other neuromusculo-skeletal issues. Our goal is to get your body functioning on its own without drugging you, cutting you, or risking your health in any way.

Not Risky Business

Stat Fact

Chiropractors enjoy the lowest malpractice rates in the entire field of medicine. ¹

So, you may be asking, are there any risks associated with chiropractic? Risks are small and typically involve some mild soreness or aching after an adjustment. This is the same kind of soreness found after exercise. It simply means that your muscles, bones and ligaments have moved in ways they are not used to. Based on studies, this minor soreness typically fades within 24 hours. In most instances, however, patients feel immediate relief.

Why is chiropractic so safe? First of all there are no drugs. Drugs can have potentially dangerous side effects. Secondly, there are no surgeries. If there are no surgeries, then you cannot have surgical complications.

Possible Risks of a Common Medical Treatment

One of the most common treatments prescribed by medical doctors for neck and back pain are nonsteroidal anti-inflammatory drugs, known as NSAIDS. These drugs

carry significant risks far greater than a bit of soreness from an adjustment.

Such risks include:

- Potentially life-threatening allergic reaction
- Gastrointestinal bleeding
- Increase the risk of heart attack
- Increase the risk of stroke
- Skin reactions
- Cancer

In fact, according to a study from the American Journal of Gastroenterology, nearly 33% of hospitalizations and deaths related to gastrointestinal bleeding are due to NSAID painkillers like ibuprofen.²

Even such advice as bed rest can cause problems. These problems include:

- Muscle atrophy
- Heart and lung weakness
- Bone mineral loss
- Blood clots

Chiropractic has none of these risks.

What Have the Researchers Found?

Chiropractic researchers are involved in studying the benefits and risks of chiropractic care. All available studies, literature and case studies show that chiropractic care holds an extremely small risk for many different reasons.

1. Education

2. Training
3. Postgraduate education
4. Basic philosophy

The basic philosophy of chiropractic is that the body can heal itself and that it is not the job of a chiropractor to heal. The job of a chiropractor is to reduce subluxations so that the body can operate fully.

Canadian researchers analyzed scientific literature on chiropractic and stated the following:

"Chiropractic manipulation is safer than medical management of low back pain. Chiropractic management is greatly superior to medical management in terms of scientific validity, safety, cost-effectiveness and patient satisfaction." ³

Another analysis of the literature in Ontario found that:

"There is no clinical or case-control study that demonstrates or even implies that chiropractic spinal manipulation is unsafe in the treatment of low back pain. Some medical treatments are equally safe, but others are unsafe and generate iatrogenic (doctor-induced) complications for low back pain patients. Our reading of the literature suggests that chiropractic manipulation is safer than medical management of low back pain." ⁴

And the *Agency for Health Care Policy and Research* (AHCPR) of the U.S. Department of Health and Human Services found that:

- Serious complications from spinal manipulation is rare

- Spinal manipulation should be used before considering surgical intervention
- Prescription drugs such as oral steroids, antidepressant medications and colchicine are not recommended for acute low back problems.⁵

AMA Tries to Vote NO

So, where do the reports of danger originate? Most of the misinformation and misunderstanding comes from the American Medical Association (AMA).

This determination to have chiropractic seen as something unsafe and performed by “quacks” pretending to be doctors began as far back as the early 1960's. At that time, the AMA tried to eliminate chiropractic as a profession. The purpose was to keep medical physicians from referring patients to chiropractic among other things such as have access to hospitals, doing joint research projects, or teaching at colleges. To do this, they told its membership, medical students, insurance companies, and the general public that chiropractic was an unscientific cult.

Studies Show Chiropractic Safe for Neck Adjustments

A study published in "Spine" in the October, 2007 issue shows that the risk of any serious side effects to chiropractic care was relatively unknown to them and the medical community. This study looked at the outcomes from 19,722 chiropractic patients who had received some form or another of neck adjustments that they referred to as "chiropractic manipulation of the cervical spine." The results as quoted in the study were that "There were no reports of serious adverse events."⁶

In 1976, five chiropractors filed a lawsuit against the AMA for violation of the Sherman Anti-trust Law. Finally, in 1991, the U.S. Court of Appeals stated that the AMA intended to "destroy a competitor," and that there was evidence "showing that the AMA was motivated by economic concerns." It also stated that the AMA doctored evidence to try to prove that chiropractic was unsafe.

One of the studies most touted by the AMA talks of 113 cases of injury after spinal manipulation. What you won't hear, however, is that these 113 cases were over a period of 53 years and that only 66 were injured after manipulation was performed by a licensed chiropractor.

If we look at the numbers, we will find that:

- There are over 60,000 chiropractors in the U.S.
- Approximately 286 million adjustments or more are made each year

Studies Show Chiropractors Don't Raise Stroke Risk

A study published in the medical scientific journal "Spine" in February, 2008 shows that chiropractic does not increase the risks of stroke or other similar problems. Researchers looked at 818 patients with a specific kind of stroke that some suggested might be the result of neck manipulations. There was no incidence of increased stroke for a visit to the chiropractor than for a visit to the medical doctor. This scientific study shows that past assumptions attempting to relate chiropractic care with certain types of strokes were not due to the care, but rather to the fact that the people who went to chiropractors and medical doctors with certain types of problems were slightly more likely to suffer this type of problem anyway.⁷

Therefore, the injuries sustained due to spinal adjustments are about one case per 286 million adjustments. Stated in statistical terms, the risk of adjustment to the neck is 0.0002% or two to three cases per million.

Now let's look at that number and compare it to the risk of death from surgery to the cervical spine – 700 per million.⁸ So, you can see, chiropractic care is far safer, and as studies have shown, far more effective, too!

Looking at these numbers in comparison to what is happening in the medical community will help you understand more fully the safety of chiropractic. Let's take a look at drug injuries.

First, Do No Harm

Janet Woodcock, the Chief Medical Officer of the FDA has stated, "1.3 million people are accidentally injured by medical therapy in the U.S. and that the misuse of medicines cause thousands of preventable hospitalizations every year and results in estimated costs ranging anywhere from \$20 to \$75 billion."⁹

Wow! 1.3 million people per year, and that's only an estimate. Great Britain tracks their patients more carefully, and based on their own observations, it is likely that the real number is closer to five million injuries due to medication.

So, what medications are likely to produce injury? Most medications, whether over-the-counter or prescribed can cause problems, some of them so severe that hospitalization is required. Let's look at specific drugs such as antidepressants, painkillers, Ritalin, statin drugs, and

diabetes drugs. Then let's look at a human error problem - abbreviation errors on prescriptions.

Pregnancy and Antidepressants

Imagine this warning:

"Women who take a common type of antidepressant during the second half of their pregnancy are about six times more likely to give birth to a baby with a rare but potentially fatal heart and lung condition."

It is scary and it is true. If a woman takes an SSRI antidepressant, the baby can be born with PPHN: persistent pulmonary hypertension of the newborn. PPHN kills up to 20 percent of babies and half the survivors are left with serious abnormalities.¹⁰

Additionally, studies have shown that 33% of infants born to mothers using SSRI antidepressants experienced withdrawal symptoms known as neonatal abstinence syndrome, or NAS. Babies with NAS experience high-pitched crying, tremors, and sleep disturbances. Even more distressing is this fact: "The long-term effects of prolonged exposure to SSRIs have yet to be determined."¹¹

Painkillers and Heart Failure

In 2006, a study in *Spine* determined that taking NSAIDs for pain and inflammation has been linked to heart failure. Researchers concluded that those using NSAIDs were at a 30% higher risk for first time heart failure hospitalization than those not using the drugs.¹²

One thing that is quite concerning is that the dosage or the duration of the use of NSAIDs made little difference on the increased risk. This means that someone taking NSAIDs

for a short period of time is not safe from heart complications.

For years, researchers have been doing studies about NSAIDs and how they can exacerbate heart failure symptoms. However, this study shows that heart failure is happening to those who previously had no history of the disease.

Researchers termed this as a "considerable public health impact." And rightly so.

Risks of Ritalin

A long-term government study showed 30% of preschool children suffered severe adverse reactions after taking Ritalin. The study was published in the November, 2006 issue of the *Journal of the American Academy of Child and Adolescent Psychiatry*. During the 70-week study, preschoolers taking Ritalin didn't grow like their peers. They grew a half-inch and two pounds less.¹³

Although the drug isn't approved for children under the age of six, Ritalin is widely used in younger children. In general, Ritalin is being used on many children with any degree of ADHD or ADD, when, in fact, it is only supposed to be used in cases that are deemed severe.

Studies suggest that Ritalin can have long-term consequences on normal-functioning brains. In other words, those misdiagnosed with ADHD and placed on Ritalin could face possible impaired brain performance as adults. The most recent studies, in fact, say that Ritalin may have a similar impact on the brain like cocaine.

Statin Drugs Kill Cells

A new scientific review of 900 studies of statin drugs shows that statins disrupt energy production by cells.¹⁴ Anything that disrupts cell energy is an anti-life drug. Drugs that are anti-life are not good long-term drugs, yet statins are being used long-term.



Words Defined: Statin Drugs

Cholesterol-lowering drugs. Statins are among the most commonly prescribed drugs in medicine.

Due to this energy loss, statins can cause:

- Loss of muscle function
- Cognitive loss
- Neuropathy
- Pancreatic and hepatic dysfunction
- Sexual dysfunction

Side effects are worse with age and the new data clearly demonstrates that the risks for any person over the age of 70 may outweigh the benefits. This is true even for heart patients.

Despite the studies, statins are still widely used and accepted. Why? Statin drugs make the pharmaceutical companies a lot of money.

Diabetes Drugs Don't Improve Health

In December of 2008, the *New England Journal of Medicine* reported that aggressive use of blood-sugar-lowering medication to prevent heart disease was a

failure. In fact, lowering the blood sugar of patients made them heavier and more hypoglycemic. The study shows that there was a 22% increased rate of death in diabetic patients who were aggressively treated with medications.¹⁵

Although counterintuitive to the idea that lowering blood sugar would produce benefits, the studies show that it simply doesn't work that way. The reasoning is that there is a big difference between normal blood sugar of a healthy person and artificially lowered blood sugar due to medications.

In healthy people sugar goes into muscles and gets burned as fuel. Blood-sugar medications move sugar out of the blood and puts it into cells that then create fat. Although the numbers look good from a blood glucose standpoint, the health problem actually gets worse.



Words Defined: Hypoglycemia

The over-secretion of insulin by the pancreas in response to a rapid rise in blood sugar or "glucose". In other words, the body's inability to properly handle large amounts of sugar.

Abbreviated Errors

Have you ever looked at your prescription and wondered what it meant? What is bid or po or qid? These are abbreviations from Latin terms. Bid means twice daily, po means by mouth, and qid means 4 times a day. Although efficient, this use of abbreviations can cause errors that put patient safety at risk.

A study shows that nearly 5% of all reported medical errors between 2004 and 2006 were caused by abbreviations, 81% of which occurred during prescribing. One of the most common abbreviations threatening patient safety is the use of "qd" in place of "once daily." The reason is that qd is often seen as qid, so instead of getting a medication once a day, a patient will now get it four times a day.¹⁶

As William J. Lauretti, an ACA member and chiropractic researcher from Bethesda, Maryland has put it, "The time has come for the medical community and the media to focus their efforts on warning patients about common procedures with very real risks associated with them -- such as the inappropriate use of drugs and surgery."¹⁷

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3

**Why Are Your Friends
and Neighbors Coming
to Our Office?**

I went to Dr. Merritt because I saw an ad that said he could help with incontinence. Before seeing him I had back pain, incontinence and memory problems after my heart surgery. I was miserable and hated to go out. Since seeing Dr. Merritt I am happier, I see hope and feel better about life. Dr. Merritt makes sure you understand what he's doing and he's very caring. - Margaret Costine

I was seeking help with my walking and stiffness. My legs were extremely tired and I had neuropathy. I was unable to completely take care of myself. After seeing Dr. Merritt my strength in my upper body is much better and I have improved balance. I feel better and feel I can do chores that before coming here seemed impossible. Dr. Merritt listens. He doesn't promise miracles, but he gives you hope. - Dorothy Tidwell

I had back pain, weakness in my legs and trouble with balance. I was frustrated because my problems were very limiting. Now I have no back pain. My life is much better. This is the first time in 10 years that I haven't had back pain. Dr. Merritt is compassionate. He is skilled and provides predictable good results. - John Sowada

I had neuropathy prior to seeing Dr. Merritt. I was suffering from numbness and burning pain. Dr. Merritt is a kind, caring doctor who has helped me get better and better. - Darlene Holland

I was suffering from neuropathy and arthritis. I had lots of pain and I had Carpal Tunnel. I also had been in an auto accident and had a slip and fall. I was so bad I was about to be put in a wheelchair. I had been on pain meds for 40 years. After seeing Dr. Merritt I have better balance, less pain, I feel more comfortable with myself, and have not had

to take any pain medication in several weeks. I am very happy. - Editha Harwell, (88 years old)

After back surgery I had severe neuropathy and tingling in my feet I also had instability in my back. It was hard to fall asleep because of the neuropathy, and tingling. Everything changed after seeing Dr. Merritt. He has been my saving grace and I thank God for him. The neuropathy is under control. Dr started cold laser treatment on my feet and after one treatment the tingling has stopped. He gave me back my life. I had been old before my time, but now I'm coming back. - Carol Horton

I had a neck injury after being wedged in between trees by my neck. I gradually went downhill. I heard constant noises and my head felt numb, I felt like I was being choked....I had no life force. Now I feel my life force coming back. Since seeing Dr. Merritt I am doing wonderfully and am 75% better! - Larry De Polito

I went to Dr. Merritt to keep me from spending the rest of my life in a wheelchair due to leg and back pain. I had bulging discs which had been addressed with steroid shots. But still, my mobility was very poor and I was very sad to think this is how my life would be. As a result of coming to see Dr. Merritt I can now stand taller, turn around without falling over and walk some distance. My life is 300% better. - Jan Alen Stach

I was going through a lot of pain in my body and taking a lot of pain meds. I was suffering from severe pain in my joints, my neck, shoulders, back, legswell, all over my whole body. This pain affected my mobility and just overall I was unable to perform daily activities.

Now, I can do things that I hadn't been able to do in months. I can bend over and pick up things with less pain. My life is 95% better than it was in the last couple of years. Dr. Merritt is an angel....he is heaven sent. - Armentra McMillon

Before going to Dr. Merritt I had been to other doctors and took pill after pill for the neuropathy in my feet. I had no feeling in the bottom of my feet, and they would burn when walking. I had tingling in my toes and my balance was affected. I wasn't able to walk a lot and that affected me because I wasn't able to do all the things I was used to. My life now is much better and I expect it to keep improving. I was very impressed with Dr. Merritt because he was so helpful, polite, kind and great. He is doing such a good job with my condition that I look forward to each visit. - Harley D. McLendon

I had knee pain. There was crunching, popping when bending, and I had extreme pain. The pain limited my activities. Since coming to Dr. Merritt's office I now have little to no pain in my knees and very little discomfort when bending. I am able to enjoy more activities after just 3 treatments. I am so impressed with how much he has helped me. - Dawn Torgersen

I saw an ad for Dr. Merritt in the newspaper. I had knee pain and hip pain. I was having trouble walking and lifting. In two sessions. The pain in my left knee stopped and my right knee doesn't hurt as much. It doesn't hurt to walk anymore. - Douglas Brueggeman

I saw an ad in a local paper and decided to see Dr. Merritt because having to go to the bathroom so many times each night left me tired all the time. Since undergoing treatment

with Dr. Merritt, I now only need to go once a night. My life has been better. - William Scarborough

I had severe piercing pain in my lower back and my sciatic nerve was being pinched and felt like electrical shocking pain radiating down my legs. I could barely walk, could not sleep and found no relief from the pain. If I moved the wrong way it would send me into agony. After one treatment with acupuncture everything was gone. The pain, numbness, electrical shock pain, spasms...everything gone! I was finally able to sleep without pain. - Nicolette Gay

I had all kinds of problems like back pain, knee pain, and problems with my balance. All the treatments from Dr. Merritt have helped me tremendously. Dr. Merritt is the best chiropractor I have ever known. - Myra Altman

I saw an ad for cold laser for low back/knees and since I had pain in both those areas I decided to go to Dr. Merritt. I had been having difficulty walking. As a result of coming to Dr. Merritt I have been able to walk without a cane. I am getting better every day. - Ken Beery

I had upper back soreness and was starting to slow down because of arthritis in both of my ankles. I used to walk every morning for an hour but had to stop because the pain in my ankles hurt so badly. After just one treatment to my ankles they feel so much better I am going to start walking again. My life is more enjoyable because now I can go back to doing something I enjoy doing. Dr. Merritt is great at the work he does and also all of his employees are very caring. - Glen Lynch

When I first came to Dr. Merritt I had lower back pain as well as pain in my right leg and knee. After seeing 4 other

doctors who could offer me no solutions except medication
Dr. Merritt helped me to be able to function and walk better.
My pain has been relieved and my life is much better.
- Georgine Byrne

I had no life. I couldn't do much of anything because of the pain and weakness in my back. After just two weeks I am now having less pain and I'm standing and walking better. Even my sleeping has improved. I'm looking forward to more improvements. I think Dr. Merritt is wonderful! I have lived with pain for over 40 years and its so much better now. - Lucinda Moyer

I was looking for something that might enable me to walk again. I had no feeling in my feet and they were always cold. I needed a walker or to hold on to something when I tried to walk. It had been several months since I'd been able to walk unassisted. But last week for the first time I felt warmth in my feet! - Murray Rutledge

I was depressed because I could not walk. I fell all the time. I had neuropathy and arthritis. Under Dr. Merritt's care I was able to walk again and sing in church. Everyone was shocked at seeing me walk without a walker at church. Dr. Merritt is a great person and cares so much about his patients. - Alex Young

I had a problem holding urine. I frequently leaked. I would have sleepless nights, up every 2 hours and then would have difficulty falling back asleep. When I went out I would always make sure I knew where the restrooms were. I was exhausted all the time. Since undergoing treatment, I am sleeping through the night, getting 6 – 7 hours of uninterrupted sleep. And I no longer have to worry about where the restrooms are. I am 100% better, I'm more relaxed. I think Dr. Merritt is a magician. He helped me with

peripheral neuropathy which was a miracle....I can feel my feet! No fear of falling, and now the incontinence is under control. - Delores Gabay-Bowyer

I had pain in my lower back, and right leg and foot. I would be in severe pain by the end of the day, making it hard to work. Now, I'm in a lot less pain. - Greg O'Quinn

I had been in a car accident. I had back pain. I couldn't do much because I was always in pain. I had to stop driving. I even had to wear bigger shoes. Now I have a wider range of motion. I have improved a lot. - Eldora Bell

I had such numbness in my fingers that there was no feeling in my hands at times. I would drop things. It was hard to drive. I also had pain in my neck and lower back. For 2 ½ years when I turned my neck there was pain. This made my vision limited when driving. After coming to see Dr. Merritt the constant numbness in my finger cleared up right away! After 6 visits the severe pain in my neck was completely gone. This allows me to turn my neck to the right and the left. I am now a safer driver. Dr. Merritt is not only kind and personable, he is effective! - Rebecca Isaack

I have neuropathy in both feet. It was very hard to walk because of the burning in my feet and at night I couldn't sleep because of the heat and pain in my feet. Now I can walk a little better. I'm starting to get feeling back in my feet and the heat is getting better. I can now sleep at night. Some nights are better than others. Dr. Merritt truly seems to care about his patients, and wants you to feel better and get better with every treatment. - Patricia Smith

My husband and I both came to Dr. Merritt because we were both having trouble with our neck and back. I had to stop vacuuming and use the sweeper because of the pain.

But now, my neck and back don't hurt as badly. Life is a lot better now. I can stand up straight when I get out of bed or get up from a sitting position. Dr. Merritt is wonderful. He is the best chiropractor I have ever been to. - Flossie Nafziger

For 6 years I had burning pain in my left foot and leg, 24 hours a day and no one could help me. I couldn't do anything. I used a cane for a long time. Now, I have no burning and can walk unassisted. I am almost 100% better. - Maggie Simpson.

I read an ad that Dr. Merritt could provide treatment for severe neuropathy. He helped before and I thought he could help me again. I have problems walking with severe pain in my legs. My walking was only a short distance, maybe 100 yards. I had a continuous burning sensation in my legs. I was limited in any activities, especially playing with my grandkids. After coming to see Dr. Merritt I am able to walk longer distances with much less pain. I can climb stairs, take my grandkids outside to play. It's a better quality of life. I can do things I couldn't do six months ago. I am happy and grateful for the improvement I feel within my legs. I couldn't say enough but believe that Dr. Merritt truly cares about his patients. He is a miracle man in my life. He has helped me feel good about myself again. Dr. Merritt is the best. He cares. - Curtis Taylor

Because of my neuropathy in both feet my wife researched and found Dr. Merritt. I had constant pain in my feet. I even had several surgeries without success. I was unable to do most things without pain. And I was unable to sleep. My feet are now much better and most days I have no pain. Once in a while there is still a small amount of pain but it doesn't last long. Dr. Merritt certainly knows what he's doing and he has a caring "down to earth" manner.

- Ernie Lean

Ever since a childhood accident I've had lower back pain, headaches and other aches and pains. I took Aleve daily but haven't taken one since I started treatment. The aching in the shoulders, back, etc has eased so much I can hardly believe it. I feel better in every way. Dr. Merritt is a kind, gentle, caring doctor and the treatments have caused no additional pain, as was the case with other chiropractors.

- Shirley Smith

I had back and neck pain so badly that I was not able to do housework for 10 years. I'm now 80% better. - Patricia Walden

I had extreme pain in my lower back and left hip. It was making it difficult to do my housework and my job. In the short amount of time I have been going to Dr. Merritt, I have noticed improvement in both areas. I find Dr. Merritt extremely knowledgeable and good at diagnosing and treating health problems. - Linda Howe

I went to see Dr. Merritt to improve the burning in my feet. They hurt constantly; I had bad balance and no energy. I would wake up in the middle of the night because my feet hurt. In just 4 visits I have less burning in my feet. I have already improved and am sleeping more through the night. Dr. Merritt is excellent. He is very knowledgeable and straight forward. - Roland Caissie

I had numbness and tingling in my hands, feet and left leg with some pain. I went to Dr. Merritt to check for neuropathy. I did not rest well at night and I was limited on some household activities. Now, I'm resting better at night. I'm beginning to feel more confident in being able to things again. I think Dr. Merritt is the best. - Alberta Russell

I was sick and tired of not resting because of war flashbacks and pain in my back and legs. This has been ongoing since 1944, urinating 3-4 times a night which also limited my sleep. Ever since seeing Dr. Merritt I urinate only 1 – 2 times a night. I sleep 5 – 7 hours a night now. I took a chance coming to a chiropractor. I had only been to MD's before and they never addressed my problems.
- William Redding Jr.

I couldn't walk or exercise much without having leg spasms. There was lower pain in my back, thighs and tingling in my feet. I also had headaches. After seeing Dr. Merritt I have no headaches and no lower back pain. I exercised for the first time in a year and felt terrific afterwards. Dr. Merritt is a blessing from God for knowing how to treat me. - Eileen Mendenhall.

I was gaining weight, could not sleep, could hardly drive and could hardly walk or stand. My feet hurt 24/7. I could only walk with a walker or 1 or 2 canes. But after seeing Dr. Merritt, my nerves are coming back. I can walk without a cane some times. I am getting a lot better. Thank you Lord, for Dr. Merritt. - William Tull ,Sr.

No one could figure out what was wrong with me after I fell. Dr. Merritt thought I had a concussion. I had problems with my speech, pain in my body and could not put a sentence together or think straight. And I had headaches. I just love Dr. Merritt. He is the one person I will always come back to. Because of him, my mind is back to normal. I can think straight. My smile is straight, I can swallow food again. I am happy and not fussing and now, I can go back to my old self again. - Barbara Heath

Before seeing Dr. Merritt, I had such bad pain and burning that I felt like I was walking on glass. I was always in pain and was limited in many ways. Everything is getting easier now, especially things involving moving around and walking. I have not had any pain in two days. Dr. Merritt is a generous, good man. - Kenneth Ryder

As a result of two falls in 2011 and the additional discomfort of tingling and cold feet walking became difficult. I couldn't sleep and had no energy to complete tasks. The biggest change since becoming a patient of Dr. Merritt is getting at least 6 hours of sleep. My feet are not as cold, I'm walking better, even longer walks without having to rest. My neck and back have less pain. I am happier and have more energy. Dr. Merritt makes me feel comfortable. He's easy to talk to, and you feel that he is interested in the way you are feeling. The adjustments are even easier with no discomfort during manipulation. - Dorothy La Neave

I have tried other chiropractors and did not get help or relief, but after seeing Dr. Merritt's advertisement I decided to call him for help. I had no feeling in the left side of my body/leg. I felt off balance and was not able to walk without my cane and had sciatic nerve damage. I wasn't able to travel anymore or walk around the mall or even just enjoy life. But with Dr. Merritt's help, I'm walking more without my cane, standing much better, have less nerve pain and I've only been coming to Dr. Merritt for one week! My life is already 90% better than before. - Paul Stratton

I was having problems with my feet, legs and back (pain) and read one of your ads in the newspaper. I had a hard time walking, had aching legs, my feet would burn, and I had mid lower back pain. These problems made my life miserable, and restricted. As a result of coming to you, I

am finally able to sleep with no burning pain in my feet. I am very impressed with Dr. Merritt. - Lawrence McCrann

My feet would get so hot that I could not sleep. Since coming to see Dr. Merritt, I can sleep and my feet seem a lot better. Dr. Merritt is a wonderful doctor. - Alice Szewczuga

With the weakness in my legs and the pain I had trouble walking. It was very hard to get around. My leg pain has ceased! Dr. Merritt is excellent! - Eugene Sorman

There was no help for my peripheral neuropathy. My feet had pain, numbness and I couldn't feel cold or heat on them. They were also swollen. It was hard to walk, and to work. I was afraid that soon I wouldn't be able to walk at all. Now, the feeling is coming back in my feet and legs, I'm walking better, I feel better, even my back no longer hurts. And it doesn't hurt to walk now! Dr. Merritt is wonderful! - Audrey Gunter

I met Dr. Merritt after seeing an ad in the newspaper that said he could help with tingling in the hands. I had tingling in my hands and burning/tingling in my left arm which woke me up at night. It was affecting my penmanship. I am no longer waking in the middle of the night ...no burning sensation. I feel so much better about my condition now, lots of things are easier. Dr. Merritt is very wonderful and knowledgeable in his field. - Ruth Adcock

My feet felt like they were asleep and I had a limp. My life was limited to what I could do. I used to sit a lot instead of moving around. Since going to Dr. Merritt....my feet are fine! I am back to my normal way of life. - Marie K. Mercer

I came to see Dr. Merritt for my peripheral neuropathy. I had problems walking, and I had misalignment of the spine. I couldn't do much walking which I loved to do. My balance was way off and I was falling quite often. With Dr. Merritt's help, my balance is great. I have no more tingling in my feet. I can now feel them. I can now walk. My life is wonderful now. I am close to 100% ,myself. Dr. Merritt is fantastic. He's a miracle worker, an exceptional doctor. I cannot say enough wonderful things about him. - Dolores Gabay-Bowyer

I was enticed by an ad in the newspaper because I suffered with neuropathy, balance problem and a weak lower back. I lacked feeling in my feet and was unable to stand or walk for any length of time. Since seeing Dr. Merritt, there's been no tingling in my feet, and I am able to turn my head fully as well as I have a stronger upper body. Dr. Merritt has given me a lot of hope. His procedures are more thorough and effective than any other doctor I have experienced. - Norman Patrick, Jr.

With my big toes numb, and cold feet making it difficult to walk, I was looking for help. I had a hard time walking and standing. My feet aren't as cold any more. I don't need to put socks on at night any more. - Lowell Yost

When I came to Dr. Merritt I had neuropathy/nerve issues in my hands and feet. It felt as though they were asleep most of the time. I was uncomfortable. These problems interfered with walking and daily activities. I felt uneasy about holding objects in my hands. But now, it seems as if my symptoms are progressively decreasing. - Tommy Bill

My feet hurt with neuropathy and for 20 years it was getting worse. I had sharp pain, and my feet felt numb. I didn't want to be on my feet for very long, and I lost sleep

at night. Now, I'm sleeping better, I can be on my feet a lot more, and I feel better all over! - Barbara Bowers

Dr. Merritt is very friendly and very qualified in his profession. I am happy with my results. I had been suffering from a continuous lower back pain; my whole body felt stiff, especially my legs. I could not stand for too long or walk without the use of a walker or cane. I couldn't get around easily. I have had several major operations which took a toll on my body resulting with much stress and depression. My body is more flexible now. My pains are slowly disappearing, and I'm regaining my physical strength. I have made a lot of progress as a result of my treatments. - Ingeburg Roman

I had restless leg, neck pain, and fatigue. I was not sleeping, had leg cramps every day, and overall felt unwell and depressed. I could not relax to watch a movie, or take a car trip. I was always sore so I could not get proper exercise. In three treatments I can feel my body healing. I had a 24 hour period of no symptoms. I'm resting more soundly now without twitching and feel more energy for the day. Dr. Merritt was very concerned about my well being and has more knowledge of restless leg than any MD I have been to. - Charlotte Cumbie

I sought Dr. Merritt for help with my neuropathy. I had back aches and my legs were swollen and had no feeling. The staff at Dr. Merritt's office was wonderful. Thank you to everyone. Now, I can walk better and longer. My legs are now skinny. Dr. Merritt is my hero. He was very understanding with my problem. - Virginia Teran

I had burning and tingling in my feet. They were swollen. I was not sleeping and it was uncomfortable to walk. My feet don't burn and tingle anymore and I'm sleeping better. Dr.

Merritt is very caring and makes me feel welcome. - Keith Powell

My general doctor said that was nothing he could do for me. Then I saw an ad in the newspaper about neuropathy. My feet had been going numb and I could barely walk. I am now regaining feeling in my feet. I'm able to move my toes. Life is a little more manageable. Dr. Merritt is excellent. - Howard Sleva

I had pain in my legs, I couldn't walk too far. Now, I'm back to normal. - William Manss

I had problems walking and was falling because of my peripheral neuropathy. My feet and legs were numb. I am beginning to have sensation in my feet. I've only had three treatments but I can tell my walk is better. Dr. Merritt is a fine man and knows what he's doing. - Ruth Phelps

I had pain, dizziness, fatigue, and an incident with seizures. I had every test under the sun – nothing found. My husband suggested I consult with Dr. Merritt. Until then I couldn't do much. I thought it was mostly age, because I had always been active earlier in my life. After seeing Dr. Merritt, I'm much happier. More energetic, I can do a lot more without pain and have a much better feeling about life in general. Dr. Merritt is great and I appreciate the fact that he uses other types of healing as well. Dr. Merritt is the "master"! - Rena Lean

I had pain in the legs, back and shoulders with numbness all over. I couldn't walk. I couldn't do the things I wanted to do. As a result of seeing Dr. Merritt, I am back to normal lifestyle. My life is now excellent. - Zeno Barscewski

I went to Dr. Merritt to see if he could do anything for my feet and legs. I've had neuropathy for approximately ten years which was keeping me from doing things that I enjoy. After seeing Dr. Merritt my feet don't hurt as much and I haven't been getting the cramps as often as I did before seeing him. From the short time I've been seeing him I think he knows what he is doing. I trust him. - Lolás Elg

I came to see Dr. Merritt because I have many painful joints, arthritis pain and muscle stiffness. My neck hurt so much I couldn't turn my head. Now, I can lift my right arm over my head. I feel very good. I like Dr. Merritt's treatments. - Vernice Dumke

Your staff is wonderful, happy, encouraging, helpful and just a delight! You are a miracle worker, knowledgeable and effective. Prior to seeing you every activity was compromised, I had sleep deprivation, negative feelings, severe chronic neck and shoulder pain. Now, my pain is manageable, my attitude is positive, and I have hope for getting better. I am more active and enjoying life again!
- Barbara Wynn

Nothing worked before. I was addicted to Lyrica and experiencing many side effects. I had inability to focus, double vision, and was unsteady on my feet. Since coming to Dr. Merritt, I have gotten off the Lyrica, am more steady on my feet, I have less problem with vision and am generally more aware. Dr. Merritt is A #1 and also a very caring and concerned about his patients. The only help I found in five years of searching. - Clyde Blackwell

I saw Dr. Merritt for treatment from severe neuropathy. My feet felt like they were burning up, and pins were sticking in them. I couldn't walk too far, wearing my shoes. It took away my ability to walk around town, golf, etc. And now, I

can wear shoes for longer periods, the burning sensation isn't completely gone but is less severe. I am enjoying life more with the reduced pain. As a result of treatment I feel better all over my body. - Roy VanSumeren

I had pain all over. Headaches, Fibromyalgia, sleep apnea, back pain and leg pain. I could not function. I have seen improvement. I can move better with less pain – in only 4 treatments. I can move my head left and right without getting dizzy and feeling faint. I can drive better with less risk for accidents. Dr. Merritt is the best. - Ana M. Guzman

I have had constant lower back pain. 35 years of constant back pain mostly due to my occupation (plumber). Several times I'd be laid up on my back, not able to work. I was afraid to do anything that would put a strain on my back. As I got older it really slowed me down. When my first grandchild came and it hurt to pick her up, I knew I had to do something. The pain is gone. I'm still very aware of what I can and cannot do, but my outlook on life has changed so much. I feel like a weight I've been carrying for 35 years has been lifted. I'm enjoying things now I thought I could never do again. I started drawing again after I gave it up 40 years ago. Any depressed feelings I had in the past are gone. Dr. Merritt is not only a great chiropractor, but I feel like he's a good friend. I feel very comfortable talking with him. He's always concerned about my life and what I've done when we talk. - Thomas Dunn

I was in extreme pain from my back which included spasms. My life was limited and painful. I am 90% better after seeing Dr. Merritt, I have little pain and am back to doing about 90% of my normal life activities. Dr. Merritt is excellent, kind and gentle and he honestly is concerned for the patient. - Rowna S. Mathyk

I saw an advertisement in the newspaper where I can get help with the problems I was having. I have cramps in both my hands and feet, pins and needles in my feet, pain in both feet and legs and in the lower section of my back. I was always in pain and I spent most of my time in bed. After attending Dr. Richard Merritt's chiropractic office for a week, getting therapy I noticed some changes and I had less pain and more energy. Now after my third week I feel 80% better. Before I could not wear shoes, and now I can. Dr. Merritt is an excellent chiropractor with phenomenal insight. - Dorothy Taylor

I saw a newspaper ad and went to Dr. Merritt. I'd had back problems, neck aches, and feet burning with not feeling in my feet. I had lost sleep. These problems were making my life miserable. In the short time of treatment I've had, the burning has almost gone, I am sleeping at night, the quality of life has returned. I think Dr. Merritt is outstanding and very helpful. He has assisted me greatly! - Carl R. Barrett

I had an advanced stage of neuropathy. I was losing my balance and had no feeling in my feet. I always feared I would fall. Climbing stairs was dangerous. I have since regained my balance and the feeling is returning to my feet. I am walking better and I have better balance. - Ivan Leon Murphy

My life has greatly improved since seeing Dr. Merritt. I was suffering from leg pain, neuropathy, feet pains and it was limiting my life and ability to be active. The pains have decrease and I can see a positive future for me. Dr. Merritt has improved my body functions and is a caring person. - Art Hertzog

When I saw Dr. Merritt I had acid reflex, low energy and GI problems. I always had a burning sensation that was not

related to eating. Since undergoing treatment with Dr. Merritt I have less reflex, more energy, and I'm able to clean my plate! Dr. Merritt is the top of the line! I now have a positive attitude towards life and feel as if I'm starting a "New Beginning." - Donna Hentschel

4

Peripheral Neuropathy: Debunking the Myths

Due to my injury and the resulting painful conditions I encountered I have firsthand experience with peripheral neuropathy. Because of my suffering I understand what others go through. Unfortunately, there are many people who suffer from peripheral neuropathy and don't know it can be alleviated because they don't feel chiropractic care can resolve their case. The problem is that there are myths that many neuropathy patients believe which simply aren't true!

So let's debunk these myths once and for all!

Myth #1: More Pills are the Only Solution

Traditional medicine treats symptoms, not the cause. The focus is on getting the patient comfortable and in the case of peripheral neuropathy that means drugs. Common drugs given to alleviate the symptoms you may be dealing with may include:

- Painkillers
- Anti-seizure medications
- Anti-depressants

The problem is that not only can these medications cause serious side-effects, but they are required for long term use in order to deal with the pain. If they aren't curing the underlying issue, then the success will last only as long as the medications are taken. This is really no way to live your life, dependent upon medication.

Consider this... There is a fire in your home and the fire alarm is going off. It's making so much noise you can't think, you can't sleep, and it is just so irritating that you

have to do something. So you cut the wire to the fire alarm and finally...silence. Relief! But cutting the wire to quiet the fire alarm, didn't put out the fire, it just stopped the alarm from making noise.

That is what the pills are doing for your condition. Why not look for a drug-free and long lasting solution to the problem?

Myth #2: Assuming Neuropathy is Only Found in Diabetic People

One other problem for peripheral neuropathy patients is that they may not realize they have peripheral neuropathy. It is a common myth that only Diabetics have this condition. But I was not diabetic. I suffered an injury and that is how most people get peripheral neuropathy. When you are injured and the nerves to the arms and legs are affected the body is unable to communicate properly with the muscles, organs, and tissues.

Myth #3: Numbness and Tingling are “No Big Deal”

Some people experience numbness and tingling and assume its not a serious issue. They feel, it will go away on it's own. But if your neuropathy symptoms recur and you simply ignore then it can lead to more serious problems down the line, including:

- Loss of sensation
- Constant unrelenting pain
- Permanent disability

It's important that you understand what neuropathy is and how to recognize the symptoms so you can get the proper care to bring your body back to health.

So, What IS Peripheral Neuropathy?

Your nervous system has two parts, the central nervous system and the peripheral nervous system. The central nervous system consists of your brain and spinal cord and their functions. The peripheral nervous system consists of the nerves that come away from the center of the spine, the nerves that lead to your arms and legs and your internal organs.

The peripheral nervous system controls your motor and sensory functions in areas like the shoulder, hands and legs, as well as your visceral body functions which include organs including the heart, kidney, intestines, and many more. Peripheral neuropathy is a degenerative disease that can affect every part of your life such as walking, eating, and sleeping. The peripheral nerves carry information to and from your central nervous system to all parts of your body. When they are damaged or diseased, these nerves do not function properly and your brain doesn't receive proper communication with the parts of your body that are affected.

Words Defined: Peripheral Neuropathy

A problem with the functioning of the nerves outside the brain and spinal cord. Symptoms of peripheral neuropathy may include numbness, weakness, burning pain (especially at night) and loss of reflexes.¹

Peripheral neuropathy can be damage to one nerve (mononeuropathy), a nerve group (multiple mononeuropathy) , or nerves throughout the body (polyneuropathy). The nerves that can be affected are:

- Sensory nerves
- Motor nerves
- Autonomic nerves

Sensory nerves, as the name implies, are the nerves that sense. These nerves carry signals such as heat, cold, pain, and other sensations that are determined by touch.

Motor nerves affect your muscles and body movements. They provide coordination and balance. These nerves are used to walk, to pick up items, to hold things, to type, to write, to eat, and all the other body functions where you use your muscles to perform tasks.

Autonomic nerves control your bodily functions, such as blood pressure, heart rate, and other organ functions. These are functions that are automatic and when healthy go unnoticed.

Common Symptoms

When you are suffering from peripheral neuropathy you can encounter:

- Pain and numbness
- Loss of sensation
- Tingling or prickling feelings
- Burning pain sensation
- Sharp shooting or electric pain
- Muscles twitching or cramping

- Lessened sensitivity in arms or legs
- Muscle problems such as weakness
- Difficulty walking or moving a part of the body
- Falling due to legs buckling
- Loss of dexterity
- Difficulty sleeping due to leg/foot discomfort
- Problems with body organs
- Problems digesting food
- Bloating or full feelings
- Heartburn
- Vomiting undigested foods
- Loose or hard stools
- Difficulty swallowing
- Lightheadedness or faint feelings
- Sexual problems
- Bladder problems
- Lack of coordination

The symptoms of peripheral neuropathy depend upon the nerves that are damaged, and how many of the nerves are damaged, and the extent of the damage.

An early sign of nerve damage is tingling or burning in the arms and legs. Often this will start in your toes and feet. You can experience deep pain as well in the legs and feet. If you lose feelings in your feet or hands you will not be able to sense pain, such as if you stepped on a sharp object, or picked up a burning hot item. You may not realize you have a blister or a sore.

When your nerves encounter damage it is harder to control your muscles. You can become weak, or you may not properly sense parts of your body. You can fall because you've lost your footing, or didn't distribute your weight properly because you don't sense the relation of your feet to the ground. You may find it difficult to button a shirt, or

do other functions that require dexterity. Your muscles can begin to twitch or cramp. When muscles become weakened they shrink, causing muscle atrophy.

When your body organs are affected you may have digestion problems. This can cause you to get heartburn or the feeling of being full or bloated after just a small amount of food. You can vomit food that has not been digested. You can have loose or hard stools. You may also have trouble swallowing.

If the nerve damage includes the nerves to your heart, you may become lightheaded when you stand up. You may feel faint. You can be in danger of not sensing the warning signs of a heart attack, because the brain is unable to sense the chest pain called angina.

Other symptoms include sexual problems such as problems with erections or vaginal dryness. You may have bladder problems such as leaking urine, being unaware that your bladder is full or being unable to empty your bladder.

You may encounter profuse sweating at unusual times.

Causes of Peripheral Neuropathy

There are over 100 causes why someone would become afflicted with peripheral neuropathy. The most common causes are listed here:

- Diabetes or erratic blood sugar
- Trauma
- Herniated discs
- Inflammation
- Heavy alcohol usage

- Poor Nutrition/Vitamin deficiency which lead to metabolic imbalance
- Anemia
- Viral or bacterial infections
- Autoimmune diseases
- Thyroid, kidney or liver diseases
- Chemotherapy or exposure to toxins
- Side effects to medications

Chemo Drugs That Cause Neuropathy²

Certain chemotherapy drugs can cause neuropathy, a sensation of tingling, numbness, pain or weakness in your fingers and toes. If you're having weekly chemo instead of every three weeks, it's more likely that you will have some neuropathy. Not all chemo drugs used for breast cancer will cause peripheral neuropathy. This is a list of chemotherapy drugs that are used to treat breast cancer and are known to cause neuropathy.

- Platinum-based drugs: carboplatin (Paraplatin)
- Taxanes: paclitaxel (Taxol), nab-paclitaxel (Abraxane) and docetaxel (Taxotere)
- Epothilones: ixabepilone (Ixempra)
- Plant alkaloids: vinblastine (Velban, Alkaban-AQ), vincristine (Oncovin, Vincasar PES, Vincrex), vinorelbine (Navelbine) and etoposide (Toposar, VePesid, Etopophos)
- Thalidomide (Thalomid) and lenalidomide (Revlimid)
- Bortezomib (Velcade)
- Eribulin mesylate (Halaven)

Targeted biological drugs can also cause peripheral neuropathy.

- Herceptin: for HER2 positive breast cancer

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5

Laser Therapy: Lighting Your Way to Health!

Lasers produce frequencies of light used by chiropractors to promote healing and reduce pain. Laser therapy provides a wide variety of benefits because:

- It is easy to use
- It works quickly
- It is FDA compliant
- It is safe
- It is painless
- It feels comfortable to the patient
- It provides quick results
- It has no side effects
- It provides faster healing of conditions
- It speeds recovery time after surgery
- It decreases inflammation

There are two kinds of lasers that chiropractors use: low-level lasers and Class IV lasers.

Low-Level Lasers

Low-Level Laser Therapy (LLLT) is also known simply as laser therapy or cold laser therapy. LLLT is used to treat both injuries and chronic pain.

The use of Low-Level Laser Therapy (LLLT) has its roots in the late 1960's, just a few short years after the first laser was developed by Theodore Maiman. Maiman had determined how to use a ruby crystal to create an intense beam of red light lasting only a millisecond. During that short time, the laser was able to produce a hole through a stack of razor blades. Immediately, doctors began to see uses for the laser.

Words Defined: Low-Level Laser Therapy (LLLT)

Also known as photobiomodulation, cold laser therapy and laser biostimulation. It is a medical treatment that uses low-level lasers to stimulate cellular function.

The first to use the laser were ophthalmologists and then dermatologists. However, it was not long before many other medical professions began to see the use of the laser in their fields. In addition to the ruby crystal, the early 60's saw the helium neon, neodymium-yttrium aluminum garnet argon, carbon dioxide (CO₂) and semiconductor laser sources. As other wavelengths were developed, more and more applications were developed, and by 1964, laser surgery began.

At first, the only ways developed to use this light source in medicine was to cut, vaporize, and stem bleeding through coagulation. However, in 1968, Endre' Mester invented 'laser biostimulation'. He believed that lower-powered beams could produce cold effects in tissues. He used lasers at low output powers to experiment on cellular behavior. By 1969, he had done a now-famous study on the healing properties of lasers with non-healing or slow-to-heal ulcers which were not healing with conventional therapies.

Then Freidrich Plog in Canada used the laser for pain and I.B. Kovacs showed its effectiveness in wound healing acceleration. By the mid 70's, although data on the effects of LLLT was growing, it was still not accepted as viable by Western practitioners.

In 1979, Joseph Skovajsa, developed a diode laser system for medical applications and most present-day lasers are based on his work. By 1981, laser acupuncture came into being and the effectiveness for this procedure was quite high. Soon thereafter, the LLLT made its way into the FDA for use in pain reduction. Today, LLLT has many different uses including sprains, back and neck pain, arthritis, chronic pain, nerve pain, ulcers, post operative care, and burns.

Light for the Future

Although we've seen it in movies for years, the idea of healing with light seems like something far off in the future. Nothing could be further from the truth. Laser Therapy is already on the road to treating a wide variety of ailments.

Studies Show Spinal Cord Injuries Heal Faster

Rats with crush injuries were given LLLT in segments of the spinal cord to help with healing and regeneration of tissue damage. After 21 days of 30 minute LLLT, rats with crush injuries had more healing than rats without the LLLT. ¹

Photosynthesis and Humans

Photosynthesis is the process whereby plants use sunlight to produce energy. The energy is then changed through cellular respiration to ATP, which is the fuel for all living things. Unlike what many think, not all laser treatments are heat oriented. LLLT is photochemical and works similarly to photosynthesis.

LLLT stimulates the enzyme cytochrome c oxidase, which, like sunlight for plants, produces ATP. ATP is needed for all human cells to function and controls other biochemical molecules that lead to cell aging and cell death. With LLLT, the cells' metabolism is increased and they survive longer. This suggests the possibility that disease or injuries, since all occur at a cellular level, could be influenced.

Universities across the world are conducting research to prove just that. Such research is showing that LLLT can improve tissue regeneration, including skin, muscle, tendon, ligament, bone, spinal cord and nerve tissues. Can you imagine the possibilities of such cellular regeneration on those with debilitating accidents?

But the research deals not only with injuries but with diseases. LLLT researchers are also conducting studies on stroke recovery, restoring eyesight, macular degeneration, and heart muscle regeneration after a heart attack.

How widespread is this research? More than 100 double-blind studies and more than 1,000 laboratory studies are underway.

Studies Show LLLT May Help Stroke Patients

Stroke-induced rats were given LLLT at 24 hours post-stroke or no intervention at all. Those that received the LLLT had significantly reduced neurological deficits than those not receiving treatment.²

How Lasers Work

There have been more than 2,500 published studies worldwide involving low-level laser therapy, with approximately 120 double-blind studies published. These studies have shown that low level lasers work by supplying energy to the body in the form of photons of light. The tissues and cells then absorb this energy, where it is used to accelerate the normal rate of tissue healing.

Lasers use red and near infrared light .The intensity of the laser used in chiropractic treatment is not as high as a surgical laser. The laser uses the wavelength of red light frequency to stimulate the cell, causing it to produce enough ATP so the cell can begin the process of healing the area. When the cells are energized, a chain reaction occurs influencing other cells to increase *their* energy and the rebuilding of the damaged cells is stimulated. This is healing on a cellular level. Low level lasers have a lower power than the class IV lasers. Both types of lasers have benefits in treating a variety of conditions.

Benefits of Class IV Laser Therapy

As with any laser therapy, doctors are often able to treat patients at a faster pace without surgery or drugs. The Class IV type of laser uses dual wavelength and dual frequencies to penetrate as deep as four inches into the musculoskeletal tissues.

The laser increases circulation and blood flow, and increases the supply of water, oxygen, and nutrients to the damaged area, which in turn stimulates those cells to begin the healing process.

This will reduce:

- Inflammation
- Swelling
- Muscle spasms
- Stiffness
- Pain

Class IV lasers:

- Promote healing
- Improve nerve function
- Reduce scar tissue
- Increase blood flow
- Relieve pain
- Speed up recovery
- Reduce fibrous tissue formation
- Increase metabolic activity
- Improve vascular activity

Class IV Lasers and Their Power

Different power settings are used to treat different ailments. These settings have different frequencies and wavelengths and because of the versatility of this type of laser, a chiropractor can target specific tissue types which incorporate other factors such as bone, cartilage, connective tissue, muscles, blood vessels and more.³

These different power settings enable chiropractors to treat musculoskeletal structures such as:

- Neck
- Shoulders
- Back

- Hips
- Wrists
- Elbows
- Knees
- Feet and ankles

The laser can alleviate pain from or accelerate the healing of conditions causing:

- Lower back problems
- Disk related problems (herniated discs, degenerative disc disease)
- Sciatica
- Stenosis
- Strains
- Sprains
- Chronic soreness
- Neuralgias
- Headaches
- TMJ
- Scar tissue
- Bone spurs
- Joint pains
- Arthritic (fingers, toes, ankles)
- Tendonitis
- Bursitis
- Carpal tunnel
- Heavy joints (knees, hips)
- Plantar fasciitis
- Sport injuries

Class IV lasers can even benefit skin conditions including:

- Psoriasis

- Eczema
- Skin lesions
- Herpes
- Shingles
- Toe fungus/athletes foot

Interesting Fact

Most bacteria are anaerobes that proliferate and metabolize much better in the absence of oxygen. Fortunately, this is in direct contradiction with the way our cells flourish and so stimulating the oxygen intake and conversion process will simultaneously help our healthy cells and inhibit bacteria.⁴

Lasers and Inflammation

When inflammation occurs normally, chemicals from the body's white blood cells are released to protect us from foreign substances. Sometimes, however, the white blood cells and their inflammatory chemicals cause damage to the body's tissues.



Words Defined: Inflammation

A response of body tissues to injury or irritation; characterized by pain and swelling and redness and heat.

This release of chemicals increases the blood flow to the area and may result in redness and warmth. Some of the chemicals cause leakage of fluid into the tissues, resulting in swelling. The inflammatory process may stimulate nerves and cause pain.

Inflammation is characterized by:

- Redness
- Swollen joint that is warm to the touch
- Joint pain
- Joint stiffness
- Loss of joint function

Often, only a few of these symptoms are present.

Lasers can be effective in mediating both the symptoms and the underlying inflammatory process.

How does this work? It has to do with cell chemistry. For instance, calcium, sodium, and potassium are all stabilized in the cell and allowed to move into the mitochondria easier. Better concentrations of these chemicals help to reduce swelling.

The laser also helps increase the production of histamine, nitric oxide, and serotonin. This helps to transport nutrients and oxygen to damaged cells and remove cellular debris.

In addition to these functions, the laser also increases the capillaries near the site of the swelling. This results in improved circulation, which enhances the healing process.

The effect of these and other processes is an accelerated inflammatory cycle with diminished symptoms and earlier normalization.

Laser Is Better Than NSAIDs (Non-Steroidal Anti-Inflammatory Drugs)

Due to the properties of NSAIDs, they slow healing and often have side effects. Side effects of NSAIDs may include:

- Nausea
- Vomiting
- Diarrhea
- Constipation
- Decreased appetite
- Rash
- Dizziness
- Headache
- Drowsiness
- Fluid retention
- Erectile dysfunction
- Heart failure
- Kidney failure
- Liver failure
- Ulcers
- Prolonged bleeding after an injury or surgery

If deaths from gastrointestinal toxic effects from NSAIDs were tabulated separately in the National Vital Statistics reports, these effects would constitute the 15th most common cause of death in the United States.⁵

On the other hand, lasers actually improve healing while reducing inflammation and pain. **The best part is that there are no side effects.**

Studies Show NSAIDS Do Little for Short-Term Pain

Nonsteroidal anti-inflammatory drugs (NSAIDs) reduce short-term pain associated with knee osteoarthritis only slightly better than a placebo, and long-term use of these agents should be avoided. ⁶

On the other hand, significant positive effects were reported for the relief of neck pain using LLLT. ⁷

Frequency of Treatments

Just as with other chiropractic services, the number of laser applications will depend completely upon the nature of the problem. While some patients get immediate results, others require a longer course of care before seeing a lasting effect.

In our office, all care plans are individualized for each patients' specific needs.

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6

Escaping Your Neuropathy Nightmare

When I became a chiropractor I had a passion to learn as much as I could about the causes and treatments for neuropathy. As I mentioned previously, I undertook extensive post graduate studies in Functional Neurology. I also have years of additional training in Oriental Medicine and Naturopathy. This unique education allows me to use a variety of tools which have been tested, researched and found to be effective.

My empathy for those suffering from the symptoms of neuropathy is sincere since I had been afflicted with the same issues.

I have developed a drugless treatment program specifically for peripheral neuropathy. It begins with an in-depth consultation about your current health and health issues. Once I know what is happening with you I can provide a complete neuropathy evaluation to locate the problem areas that are causing your condition.

We will go over the findings together, and I will prescribe a course of care to help your body heal itself. The following are therapies I use to help this condition, and your specific therapy will be based upon the findings, and your individual case.

Therapies Used for Care

In order to determine that you have peripheral neuropathy, and in order to properly help your individual and specific case, you should be checked in three ways; structurally, neurologically, and metabolically. These three aspects of your body will help determine exactly what is happening and help me provide the proper care for your case.

All bodily functions are controlled by the nervous system. The brain and spine make up the central nervous system where information is received and sent. The peripheral nervous system takes this information and sends it out to the rest of the body. Any interference or stress within the nervous system can cause health issues. Understanding where the message to the brain is malfunctioning will help determine how to correct it.

It is important to have a metabolic workup to check your blood chemistry. This will allow us to determine if you're having an adverse reaction to foods, one of which can include inflammation. It will indicate if there are blood sugar problems, anemia, adrenal issues, and many other metabolic imbalances. Knowing your blood chemistry can help facilitate nutritional changes, which can provide a solution to your body functions.

Care to wake up the nerves and get them to function normally include:

- Acupuncture
- Rebuilder therapy
- Brain based therapy
- Metabolic treatment therapy
- Cold laser therapy
- Spinal decompression therapy
- Whole body vibration therapy
- Traditional chiropractic therapy
- Diet and exercise
- Transverse friction massage
- Nutrient or insulin replacement when diabetes is involved
- Neurological Relief Center Technique (NRCT)
- Vitamin therapy where necessary

Study Maps Effects of Acupuncture on the Brain

Feb. 5, 2010 — Important new research about the effects of acupuncture on the brain may provide an understanding of the complex mechanisms of acupuncture and could lead to a wider acceptability of the treatment.

The study, by researchers at the University of York and the Hull York Medical School published in *Brain Research*, indicates that acupuncture has a significant effect on specific neural structures. When a patient receives acupuncture treatment, a sensation called deqi can be obtained; scientific analysis shows that this deactivates areas within the brain that are associated with the processing of pain.

Dr Hugh MacPherson, of the Complementary Medicine Research Group in the University's Department of Health Sciences, says: "These results provide objective scientific evidence that acupuncture has specific effects within the brain which hopefully will lead to a better understanding of how acupuncture works."

Neuroscientist Dr Aziz Asghar, of the York Neuroimaging Centre and the Hull York Medical School, adds: "The results are fascinating. Whether such brain deactivations constitute a mechanism which underlies or contributes to the therapeutic effect of acupuncture is an intriguing possibility which requires further research."¹

When treating peripheral neuropathy, the goal is to reawaken the nerves, or remove any blockage so that the

nerves once again function properly and send the appropriate signals to the brain.

Acupuncture Regulates the Nervous System – New Research

June 1, 2013

New evidence demonstrates acupuncture activates specific regions of the brain for the treatment of specific diseases. Investigators from the Acupuncture and Moxibustion Department of Beijing Hospital of Traditional Chinese Medicine also find that acupuncture regulates neurotransmitters as a mechanism to modulate autonomic nervous system responses. The review article notes that further investigation is required to differentiate the effects of specific acupuncture points versus the medicinal effects elicited by needling along the acupuncture meridians.

The review focused on a great body of modern research and uncovered many of the mechanisms by which acupuncture exerts its medicinal effects on human health. The study noted that numerous new research investigations have shown that acupuncture is effective for the treatment of autonomic nervous system related disorders including epilepsy, anxiety, PCOS (polycystic ovarian syndrome), infertility and cardiovascular disorders. Additional research demonstrates that acupuncture regulates the autonomic nervous system thereby modulating blood pressure, pupil size, muscle activities, heart and pulse rates, HRV (heart rate variability) and skin conductance and temperature.²

Acupuncture is a powerful ancient healing modality now accepted in the modern era of natural health care. When blood flow and nerve function to any part of the body is disrupted the body is compromised. Acupuncture is the stimulating of specific points or energy channels called meridians that influence the whole body with the painless insertion of small needles. This procedure improves blood flow and nerve function. By doing so, the affected parts of the body are better able to function.

Rebuilder therapy uses electrical signals to stimulate nerves. These signals are generated by a machine to send impulses to wake up the nerves. When the nerves are stimulated, they begin to function again and this helps to reverse the neuropathy symptoms.

Brain-based therapy involves understanding that stress causes illness, and up to 90% of all sickness, diseases, and emotional problems. All forms of stress can eventually adversely impact brain function leading to a runaway autonomic nervous system and a perpetual flight or fight sympathetic survival syndrome.

Signs of this sympathetic survival syndrome may include:

- An increase in heart rate
- Increased blood pressure
- Increased blood sugar
- Increased respiration rate
- Increased sweating
- Dilated pupils
- Increased secretion of cortisol, epinephrine, and adrenaline

Providing specific sensory based modalities (no drugs) stimulates brain activity to tune down this autonomic

overload. Like repairing a computer, Brain Based Therapy reboots, defrags, synchronizes, and harmonizes brain function leading to better brain balance, and improved whole body health.

Cold laser therapy can also reawaken damaged nerves. The cold laser uses light therapy to stimulate the nerve fibers in order to increase blood flow to the nerves. This painless process has decreased neuropathy as well as inflammation.

Spinal Decompression. When peripheral neuropathy has resulted from compressed discs and vertebrae, spinal decompression can provide relief and treatment. Spinal decompression is a chiropractic technique that uses traction to take the pressure off the discs and allow the discs to move back into place. It also stimulates blood flow, which produces a healing response.

Whole body vibration stimulates circulation throughout the body. People who have been inactive can benefit greatly by this technique. Whole body vibration uses a vibration plate that the patient can stand on or sit in a chair and rest their feet on. The vibration plate transmits energy to various parts of the body, causing muscles to contract and relax several times per second. In addition to stimulating circulations, this type of therapy can provide benefits including improved bone density, muscle tone and enhanced blood flow and oxygenation.

Traditional chiropractic therapy involves adjusting misaligned vertebrae allowing the proper communication to flow between the brain, spinal cord, and nerves.

Transverse friction massage is a deep tissue technique applied to the site of the injury. The technique is to use the

fingers to massage across the muscle fibers to break up any scar tissue, adhesions, or muscle knots in the tissues. This will increase the circulation and stimulate the nerves. Increasing the circulation will help to reduce pain as well.

True Tesla electrical stimulation is a machine that uses low amperage to allow the painless saturation of muscle tissue with high amounts of voltage. This results in causing your muscles to contract. By contracting your muscles you are stimulating them, making them work, and there by:

- Preventing muscle disuse atrophy
- Relaxation of muscle spasms
- Muscle reeducation
- Maintenance and increased joint ranges of motion
- Increase in local blood supply
- Circulation stimulation of calf muscles

Neurological Relief Center Technique (NRCT) was developed in 2004 in order to treat two patients who were suffering from chronic fibromyalgia. Their conditions resulted from meningeal (the membrane covering the brain and spine) compression. When the tissues that cover the brain and spine become stressed the joints in the upper neck are unable to move properly. This is usually relieved by specific manual or instrument adjustments restoring motion. With NRCT applications, the brain stimulation is profound, and remember as the brain goes, so goes the body. Change the brain and change your life.

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7

**Don't Suffer From That
Car Crash for the Rest
of Your Life!**

If you have been riding or driving in a car during your life, the odds are that you have been in an automobile accident. During a survey, it was found that over 25% of drivers were involved in an auto accident in a five-year period. In 2008, there were 10.2 million auto accidents in the United States injuring 2.4 million people. In fact, someone is injured by a car crash every 14 seconds, which is the leading cause of acquired disability nationwide.¹

One of the most common injuries in an automobile accident is whiplash. Let's learn more about whiplash and what chiropractic can do to help.

What Is Whiplash?

Whiplash is an extremely rapid extension and flexion of the neck that results in injuries to the vertebrae, nerves, discs, muscles, ligaments, and tendons.

There are four phases of whiplash injury. During a rear-end car crash, your body goes through a rapid acceleration and deceleration. In fact, going through the four phases of whiplash take less than a second.

During the first phase, your car is pushed out from under you and your back is flattened against the seat. This force shoves your cervical spine upwards and compresses your discs and joints. Additionally, your head moves backwards, creating stress. Your headrest should help reduce the movement of your neck, but damage can still occur.

In phase two, your torso is accelerating faster than your vehicle but your head is still going backwards. This creates an S-curve in your cervical spine. During this same time, your seat is now recoiling forward acting like a

springboard, causing your torso to move forward even more rapidly.

During the third phase, your torso comes to rest again in your seat, but your head and neck are accelerating forward creating an S-curve in the opposite direction.

During the fourth and final phase of whiplash, your torso is stopped by the seatbelt and your head continues to move forward with nothing to stop it. This results in a violent forward bending motion of your neck. This force can result in muscle strains and tears, vertebrae being shoved out of their normal position, the spinal cord being stretched and irritated, and even the brain hitting the inside of your skull.

Unlike broken bones or torn ligaments, an x-ray cannot detect whiplash, so it is much harder to diagnose and easier to go untreated. Procedures such as a MRI, surface electrode myographic studies, and thermography can show soft tissue injury, so it is essential if you've been in an accident that you seek treatment with someone who can provide these diagnostic tests.

The most common whiplash symptoms are:

- Neck pain and/or stiffness
- Blurred vision
- Difficulty swallowing
- Irritability
- Fatigue
- Dizziness
- Pain between the shoulder blades
- Pain in the arms or legs, feet and hands
- Headache
- Low back pain and/or stiffness
- Shoulder pain

- Nausea
- Ringing in the ears
- Vertigo
- Numbness and tingling
- Pain in the jaw or face

Injuries Resulting From Whiplash Trauma

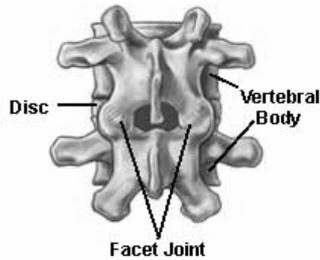
Many factors determine the overall whiplash trauma that an individual will experience. It depends upon such things as:

- An awareness of the crash
- Direction of impact
- Acceleration of vehicles
- Sex
- Age
- Physical condition

Not only does whiplash look slightly different in each individual, but it also may take weeks or months to rear its ugly head. This is known as delayed onset whiplash.

Even though there is no prescribed pattern to whiplash, there are certain conditions that are common.

Neck Pain: Neck pain is the most common complaint when suffering from whiplash. Often this pain goes across the shoulders, up into the head and then down between the shoulder blades. Whiplash injuries tend to affect all of the tissues in the neck, including the facet joints, discs, as well as all of the muscles, ligaments, and nerves.



The soreness you feel on the back of the neck, often to the right or left of center, is due to facet joint pain. This pain is typically tender to the touch. When you have pain due to the facet joint, your chiropractor will not be able to see it on an x-ray or MRI. Instead, your doctor will have to physically palpate the area to find the problem.

Disc injury tends to be the reason for chronic pain induced by whiplash. The outer wall of the disc (annulus) is made up of fibers that can easily be torn during a car accident. These tears lead to disc degeneration and herniations, which in turn, cause irritation and compression of the nerves running close to the disc. Once the degeneration or herniation has begun, your pain will move from being a neck pain to one that radiates into the arms, shoulders and upper back. You may even experience muscle weakness.



Words Defined: Herniated Disc

The gel-like inside of a spinal disc oozes out of the annulus and presses against a nerve causing severe pain.

The immediate pain that you feel after a car accident is often due to damaged muscles and ligaments. This

damage causes stiffness and restricted motion. As the muscles heal, the pain lessens. However, the restricted movement may continue. Damage to the ligaments often results in abnormal movement and instability.

Headaches: Headaches are the next most common complaint from someone suffering a whiplash injury. Although some headaches are due to the brain hitting the skull during impact, many are due to injury to muscles, ligaments and facet joints of the cervical spine.

TMJ Dysfunction: TMJ is the temporomandibular joint or jaw joint along with the surrounding muscles. TMJ dysfunction can be quite painful, making it difficult to eat, swallow, and yawn. Common symptoms of TMJ dysfunction include:

- Pain or tenderness
- Limited ability to open the mouth wide
- Jaws that get "stuck" in the open or closed position
- Clicking, popping or grating sound
- Tired feeling in the face
- Difficulty chewing
- Sudden uncomfortable bite as if the upper and lower teeth are not fitting together properly
- Swelling on the side of the face
- Toothache
- Headache
- Neck ache
- Dizziness
- Earaches
- Hearing problems

If not properly evaluated and treated, TMJ problems can continue to worsen and lead to headaches, facial pain, ear pain, and difficulty eating.

Brain Injury: The human brain is made up of soft tissue. This tissue is suspended in a watery substance known as cerebrospinal fluid. During an accident, as your head and neck are thrown first backward, then forward, then back again, your brain bounces off the skull and can lead to bruising and bleeding. Although it is possible to lose consciousness due to such an injury, most people remain conscious, but report feeling confused or disoriented in the short term. In the long term, brain injury from whiplash can cause things such as:

- Mild confusion
- Difficulty concentrating
- Sleep disturbances
- Irritability
- Forgetfulness
- Loss of sex drive
- Depression
- Emotional instability

In fact, it is even possible that your sense of smell and taste, or even your vision is affected.

Dizziness: Dizziness is typically a result of injury to the facet joints of the spine, though it is possible that it results from a brain injury. Luckily, dizziness is often a very temporary side effect of whiplash and can be cared for with chiropractic.

Low Back Pain: Most people think of neck pain when they think of whiplash. Many of us have seen the neck collars worn by someone who was recently in a car accident. The lower back, however, is also prone to injury during the four phases of whiplash. In fact, low back pain is found in nearly one-half of all rear-end collisions and nearly 75 percent of all side impact crashes.² Why is the lower back

subject to injury? Despite not having the large range of flexion and extension, the lower back still goes through tremendous compression. This compression causes injury to the discs, ligaments, and muscles.

Chiropractic Care for Whiplash

When you see your chiropractor after an auto accident, he will do a thorough evaluation of your entire spine. He will check your neck (cervical spine), your mid-back (thoracic spine) and your low back (lumbar spine). Although you may just have neck pain, any region of your spine may be affected.

What will your chiropractor be looking for?

- Restricted joint motion
- Disc injury
- Muscle spasm
- Ligament injury

Studies Show Chiropractic Is Best Therapy for Whiplash

A study was undertaken to determine the effects of chiropractic in a group of 28 patients who had been referred with chronic 'whiplash' syndrome. The severity of patients' symptoms was assessed before and after treatment. Ninety-three percent of patients improved following chiropractic treatment ³

Your chiropractor has a host of diagnostic tests that can help him determine where your problems lie. For instance, he will use motion and static palpation, which is an

examination by means of touch. During the palpation, he will be checking for tenderness, tightness, and movement.

Your chiropractor will also take a look at your overall posture and how you walk. This will help him determine whether your body mechanics are working properly.

Of course, your chiropractor will take x-rays to see if you have any degeneration or misalignment of the spine. These x-rays can also help your chiropractor determine if you need a MRI, surface electrode myographic examination, or a thermogram for further diagnosis.

Once all the diagnostic tests have been done, your chiropractor will understand your unique case of whiplash and how best to help you with an effective care plan.

The Stages of Whiplash Recovery

In the initial intensive or relief care phase of chiropractic care for whiplash, the main goal is to get rid of your pain and stabilize your condition as quickly as possible.

Your chiropractor will concentrate on reducing inflammation by using ultrasound and/or gentle stretching and manual therapies. You may also use cold therapy or a neck support.

As your neck area becomes less inflamed, your chiropractor will begin to use adjustments to help you return normal motion to your spinal joints.

The number of times you visit a chiropractor during the relief stage will vary based on your particular condition. Typically, however, this phase lasts two to three months, with visits scheduled several times per week.

Once you have passed through the relief stage, you will move on to the rehabilitative stage of therapy. During this phase, you will have begun participating in your normal activities again. However, if you do not continue care, your pain is likely to reappear because your condition has not yet been fully stabilized.

The goals of rehabilitative care include:

- Strength
- Flexibility
- Increased muscle control and coordination
- Increased balance
- Reducing fear and avoidance of normal activities

This phase of care can take several months, depending on the severity of your condition. Typically, the amount of care is not quite as frequent as relief care.

Natural Approaches for Whiplash Injuries

The pain and restricted motion you experience after a whiplash injury is due to injured tissue. It is also due to the protective response of the nervous system. Your nervous system purposely locks up your spinal joints to protect you from injury to the spinal cord itself. It is your chiropractor's job to restore your injured tissues and unlock your spinal joints. Your care plan will depend entirely on your particular diagnosis. However, there are many traditional approaches used for whiplash. Let's discuss a few of them.

The most common care for whiplash is specific spinal adjustments. Adjustments of the spine restore the normal movement and position of the vertebrae.



Words Defined: Spinal Adjustment

Where the chiropractor moves a joint to the end of its range, and then applies a low-force thrust.

Spinal Adjustment is the most effective care for minimizing the long-term effects of whiplash. It is even more effective when used with massage therapy, trigger point therapy, exercise rehabilitation and other soft tissue rehabilitation therapies.⁴

Some spinal adjustment techniques are:

- **Instrument-Assisted Manipulation:** This is another non-thrusting technique. To do this procedure, your chiropractor will use a hand-held instrument to apply force without thrusting or twisting the spine.
- **Neurological Relief Center Technique**
- **Specific Manual Spinal Adjustment:** Your chiropractor will identify specific joints that show restricted motion, known as subluxations. He will return motion to the joint using a gentle thrusting motion. The gentle thrusting rapidly stretches the soft tissue as well as stimulates the nervous system.

In addition to adjustments, your chiropractor may also use manual therapies. These therapies treat injured soft tissues such as ligaments and muscles.

Some examples of manual therapies include:

- **Trigger Point Therapy:** Your chiropractor will identify tight, painful points on a muscle. Once identified, your chiropractor will put direct pressure on these points with their fingers to relieve the tension.
- **Manual Joint Stretching and Resistance Techniques:** These are techniques that help to stretch out your joints against some form of resistance. One common resistant manual joint therapy technique is called muscle energy therapy. In this therapy, you will actively use your muscles in a specific direction while your chiropractor applies a counterforce to your movements.
- **Therapeutic Massage:** Therapeutic massage is the manual manipulation of the body's soft tissue, and is generally used for the reduction of stress and pain. This differs from “getting a massage” with the main goal of relaxation. Though you may feel relaxed after a therapeutic massage, the goal is the relief of pain.
- **Instrument-Assisted Soft Tissue Therapy:** Your chiropractor will perform repeated strokes with an instrument over the muscle injury area. These strokes are gentle and have a massage-like quality.

In addition to the different kinds of manual techniques available to your chiropractor, he may also care for your whiplash injury with other modalities. Some examples include:

- **Interferential Current (IFC):** The IFC machine produces electrical currents that pass through the affected area of the patient by placing two electrodes on the skin at a painful area or the spinal nerve root associated with a painful region. Alternating currents are applied and the currents rise and fall at different frequencies. These frequencies cause the body to produce endorphins, which stops the pain signals from reaching the brain.
- **Ultrasound:** Therapeutic ultrasound stimulates tissue below the skin's surface using sound waves. Essentially, it is a high frequency massage that goes below the surface of the skin to reduce inflammation and stimulate tissue healing.
- **Therapeutic Exercises:** These exercises improve the joint mechanics and return your spine to normal motion. Chiropractors commonly prescribe specific strengthening exercises for their patients with whiplash.

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**Healthy
Again...Priceless!**

Chiropractic Care Is Important for Seniors

Seniors experience changes in their spine as they age. Some of these changes can be quite dramatic. That is why chiropractic care can be so important during this critical time of life.

What changes do seniors see? Spinal discs, joints, ligaments, muscles and other spinal tissues become weaker, less hydrated, more fibrotic and less able to withstand normal stresses. All of these issues can lead to arthritis. Arthritis is inflammation in one or more joints, which results in pain, swelling, stiffness, and limited movement.

Additionally, seniors are more likely to have tissue injury and face an increase in healing time from these injuries. As seniors, these injuries often occur due to everyday events, such as bending or climbing stairs.

Chiropractors understand the process of aging as it relates to the spine, and can provide an effective, safe and minimally invasive care plan. Such a plan can include adjustments, mobilization, physical therapy, stretching, and exercise. Some chiropractors will also assess nutritional intake and suggest dietary changes and supplements. A good chiropractic plan will reduce pain, spinal stress and degeneration, and will increase flexibility and mobility.

Goals of Senior Chiropractic Care

Just as with other chiropractic care, a chiropractic plan for seniors will depend completely upon the individual. In addition to the severity of the condition, chiropractors will

also look at the overall health of the patient. Patients who are in good overall health and still maintain an active lifestyle will find that their chiropractic care will be far more effective. Their plans will help them with pain relief and stabilization, allowing them to enjoy all the activities they enjoyed before their condition occurred.

Depending upon the overall health and activity of a patient, chiropractic goals can be one of the following:

- Return to active lifestyle with no pain
- Return to active lifestyle with some limitations and some limited pain
- Return to some activities with some pain
- Slow down the degenerative process

Although there is quite a difference between these goals, even goal four is a step up from a degenerative disease progressing at a normal rate.

Benefits of Senior Chiropractic Care

Many seniors are unaware of the outstanding benefits that are possible through regular chiropractic care.

Pain Relief

Chiropractic care is one of the most effective and safest forms of health care available to treat pain due to back, neck, and head problems. Doctors of chiropractic are specifically trained to identify and treat subluxations and their effect on the brain and spinal cord.

Increased Range of Motion

Seniors often experience decreased range of motion due to many causes. As we age, muscles become shorter and lose their elasticity. Additionally, aging can affect the structure of bones and muscles, causing pain and decreased range of motion in the shoulders, spine and hips. Decreased range of motion come from such causes as arthritis, Parkinson's disease, injuries from falls, car accidents or overuse from previous occupations, and increased muscle spasms or tone.

Studies Show Range of Motion Increases with Chiropractic

One hundred five patients with cervicogenic headache were randomized into 2 groups. After a baseline observation period, Group 2 received manipulation (toggle recoil) to the cervical spine, whereas Group 1 received sham manipulation. After receiving spinal manipulation, active range of motion in the cervical spine increased significantly in Group 2 compared with Group 1.¹

Why is increased range of motion something seniors want? No matter what activity you participate in, your range of motion matters. Do you want to bend over to pick up your grandchildren? You can do it better with increased range of motion. Do you want to kneel while gardening? Increased range of motion can make this easier. Do you want to swing your golf club with more strength? Increasing your range of motion will help. Whatever you do in life, increased range of motion will help you do it better.

Increased Balance and Coordination

Balance and coordination in seniors often come from injury or degenerative changes to the neck region.

Mechanoreceptors are located in the back joints of the neck and are responsible for providing the brain with information needed for balance and coordination by telling the brain where the head is in relation to the body.



Words Defined: Mechanoreceptors

Enable us to monitor the position of our muscles, bones and joints - the sense of body awareness, also known as proprioception.

Aging causes minor deficiencies in the mechanoreceptors' function and results in loss of body awareness. Then instead of using mechanoreceptors, a person is left to use vision to determine where they are in space.

To compensate for the loss of awareness of the location of the legs in space, the feet are kept wider apart than normal, causing an unusual gait. As impairment to mechanoreceptors increase, compensation becomes harder and harder until finally, the senior is unable to get up from a chair or rise from a fall. Chiropractic stimulates the mechanoreceptors, leading to better balance and coordination.

Decreased Joint and Tissue Degeneration

When your spine has a subluxation, problems occur. Think of a subluxation like a misalignment of the tires on your car. Having your tires misaligned means that they will wear out faster and usually wear away more in some areas than others. The same is true with a misaligned spine. Having subluxations means that your spine will wear out faster.

Focusing on the mechanical principles of your body reduces spinal stress. This decreases spinal degeneration and other changes.

Studies Show Chiropractic Restores Balance and Coordination

Studies have shown that chiropractic care can help restore balance and coordination by stimulating mechanoreceptors in the neck. This stimulation normalizes function leading to improved balance and coordination.²

Increased Health and Well-Being

Once you are out of pain due to your chiropractic plan, what will you notice? You will notice that you feel great, sleep through the night, have more energy and simply can enjoy all the activities of the past.

In general, you will feel that your life is definitely worth living. Regular chiropractic care increases the quality of life and increases health and well-being. Chiropractic care for those over 65 is aimed at quality of life. The point is to not only eliminate pain and correct soft tissue abnormalities, but get you back to your active lifestyle again. Why should you have to stop jogging, dancing or golfing simply

because you've become a senior? With chiropractic, you don't have to!

Decreased Incidence of Falling

A big problem in the elderly population is injuries due to falls. According to the Centers for Disease Control and Prevention (CDC), falls are responsible for 90% of the 850,000 bone fractures which occur annually among Americans over the age of 65.³ Chiropractors can reduce the risk of falls.

As mentioned earlier with balance, mechanoreceptors begin to malfunction as a person ages. Regular adjustments keep these receptors in proper working order, thus helping a senior maintain balance. Good balance will reduce falls. Additionally, chiropractors often prescribe stretching and exercise programs to increase strength, flexibility, mobility, balance, and coordination.

Keeps Seniors Out of Nursing Homes

Dr. Coulter, the president of the Canadian Memorial Chiropractic College, published a study in 1996. The study evaluated the health status of 414 elderly individuals (average age of 80 years) and compared those individuals under chiropractic care with those not under chiropractic care. Some key points in the study were:

- At three years follow-up, less than 5% of those who used chiropractic care lived in a nursing home while 48% of those who did not use chiropractic care lived in a nursing home.
- At three years follow-up, only 26% of those who used chiropractic care were hospitalized compared with 48% of those in the non-chiropractic group.⁴

Remaining at home, rather than having to be cared for by others, is a valid goal of any medical procedure when dealing with seniors. Chiropractic is a great way to get this accomplished.

Decreases Arthritis

Stat Fact

Arthritis limits everyday activities such as walking, dressing and bathing for more than 7 million Americans.⁵

Arthritis literally means joint inflammation. Arthritis causes pain, loss of movement and sometimes swelling.

Osteoarthritis (OA) is the most common type of arthritis in the senior population. It starts when tissue, called cartilage, begins to wear away causing your bones to rub against each other. OA most often happens in your hands, neck, lower back or the large weight-bearing joints of your body, such as knees and hips.



Words Defined: Cartilage

A flexible connective tissue found in the joints between bones and the intervertebral discs. It is not as hard and rigid as bone, but is stiffer and less flexible than muscle.

Over time, OA can make it hard to move your joints. It can cause a disability if your back, knees, or hips are affected.

Determining the cause of arthritis can be difficult, because often several factors contribute to an individual developing

this common problem. Some of the risk factors that can cause arthritis include:

- Genetics
- Age
- Weight
- Previous Injury
- Occupational Hazards
- Some High-Level Sports
- Illness or Infection

Although there is no one cause for arthritis, growing older often puts you at risk. This is because your joints and the cartilage around them become less able to recover from stress and damage.

Spinal discs need nutrition and proper waste elimination to heal properly. This happens through joint movement. Without enough movement, nutrients and waste do not move properly. A chiropractic plan for arthritis would involve restoring joint motion to keep the joints healthy and minimize degenerative joint changes.

Medicare Pays for Chiropractic

Medicare Part B pays for a chiropractor's manual manipulation of the spine to correct a subluxation. Additionally, hand-held devices may be used by chiropractors in performing manipulation of the spine.

Your chiropractic treatment is covered by Medicare if:

- You have a significant health problem in the form of a neuromusculoskeletal condition that needs treatment (such as pain, inflammation, swelling, leg and foot numbness, etc.)

- You have a subluxation of the spine
- Manual manipulation has been recommended for improvement of your condition

You will have to pay the Part B deductible, and then 20% of the Medicare-approved amount. Medicare reimbursement will be limited to one visit per day, unless there is a medical need for more than one treatment each day.

The hands-on nature of the chiropractic care requires patients to visit the chiropractor a number of times. To be cared for by a chiropractor, a patient needs to go into the office. A chiropractor may provide acute, chronic and/or preventive care, thus making a certain number of visits

necessary. Your doctor of chiropractic should tell you the extent of treatment recommended and how long you can expect it to last.

Stat Fact

87 percent of patients surveyed gave their chiropractor a score of 8 or higher on a 10-point scale, with 56 percent rating their chiropractor a perfect 10. ⁷

Each visit must be medically necessary and enhance your condition. Once further improvement cannot reasonably be expected from

continuous ongoing care, the treatment is considered supportive/preventive, and Medicare will stop paying for treatment. ⁶

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Glossary

Abdomen: The part of the body between the chest and hips, aka, belly.

Activator® Methods: A small hand-held adjusting instrument which delivers a precisely measured, gentle thrust in a specific direction.

Acute: Comes on quickly, can be severe, but lasts a relatively short time.

Adjustment: A procedure to restore joint mobility, alignment and nerve communication by applying a specific and controlled force to joints by manual or mechanical means.

Afferent: Carrying inward to a central organ or section, as nerves that conduct impulses from the periphery of the body to the brain or spinal cord.

Antalgic Position: Abnormal body position due to the body's attempt to reduce pain.

Anterior: Toward the front of the body.

Articulation: Joining bones to allow motion; a joint.

Atlas: The uppermost, most movable bone of the spine.

Atrophy: Partial or complete wasting away of a part of the body.

Autonomic Nervous System (ANS): The part of the nervous system in charge of regulating involuntary vital functions, including the activity of the heart, the digestive system and the glands. It's divided into two subsystems:

the sympathetic nervous system and the parasympathetic nervous system.

Bilateral: Having, or relating to, two sides.

Biomechanics: Mechanics applied to biology in order to understand the mechanics of living systems.

Blocks/blocking: Wedge-shaped apparatus used to raise one or both sides of the hip bone into a healthier pattern for better support of the spine and head.

Bursitis: The painful inflammation of the bursa, a pad-like sac found in areas subject to friction. Bursae cushion the movement between the bones, tendons and muscles near the joints.

CAT Scan (Computer Aided Tomography): A series of detailed pictures of areas inside the body, taken from different angles; the 3-D pictures are created by a computer linked to an x-ray machine.

Central Nervous System (CNS): The portion of the vertebrate nervous system consisting of the brain and spinal cord.

Cervical: The upper spinal area, consisting of seven vertebrae.

Chiropractic: The art, science and philosophy which utilizes the inherent recuperative powers of the body and deals with the relationship between the spinal column and nervous system and the role of that relationship in the restoration and maintenance of health.

Chiropractor: Doctor trained in the specific science, art and philosophy of chiropractic.

Chronic: Lasting for a long period of time or marked by frequent recurrence.

Coccyx: A small triangular bone at the base of the spinal column consisting of several fused rudimentary vertebrae.

Compensation Reaction: A problem resulting from the body responding to a problem elsewhere.

Compressive Lesion: A malfunctioning spinal bone or soft tissue that puts direct pressure on a nerve, distorting its function.

Congenital: Present since birth.

CT Scan: See CAT Scan.

Davis Series: Seven specific x-ray views of the upper spine to help with whiplash.

Diagnostic Imaging: Diagnostic imaging includes all tests that produce images or pictures of the inside of the body.

Diathermy: Therapy using high-frequency electric current, ultrasound or microwaves to deliver heat to muscles and ligaments.

Disc Herniation: The disc, the cushion that sits between the spinal vertebra, is pushed outside its normal position by the inner gel-like material.

Disc: Serves as a shock absorber between the vertebrae of the spinal column.

Disease: An abnormal condition of the body or mind that causes discomfort or dysfunction.

Dorsal: Pertaining to the back or to the posterior part of an organ; one of 12 vertebrae in the human vertebral column.

Efferent: Refers to nerves that carry messages from the brain and spinal cord towards the muscles and glands in the body, i.e. motor nerves.

Electromyogram (EMG): A graphical record of electric currents associated with muscle contractions.

Electro-Muscle Stimulation (EMS): A therapeutic type of electrical current applied directly to the body and used for the relief of pain, swelling and inflammation, muscle spasm and to heal injured tissue.

Extension: To stretch or spread something out to greater or fullest length.

Facet: A smooth flat surface at the posterior of each vertebra that links them with vertebra above and below and permits movement of the spine.

Facilitative Lesion: A twisting, stretching, chafing or irritation of nerve tissue from malfunctioning spinal structures.

Fixation: Spinal area with restricted movement.

Flaccid: Lacking firmness, resilience or muscle tone; drooping.

Flexion: The act of bending a joint or limb in the body.

Foramen: An opening or orifice, as in a bone.

Health: A state of optimal physical, mental, and social well-being and not merely the absence of disease and infirmity.

Homeostasis: A body's ability to regulate in order to achieve a relatively stable state of equilibrium.

Hypermobility: A condition in which the joints easily move beyond the normal range expected for a particular joint.

Hypomobility: Condition in which ligaments are tight and movement is restricted.

Inflammation: A localized protective reaction of tissue to irritation, injury, or infection, characterized by pain, redness, swelling and sometimes loss of function.

Interference: Damage or deficit to the natural nerve flow.

Intervertebral Disc: The soft tissue found between the bones of the spinal column, i.e. the vertebrae. They help cushion the spine from everyday stress.

Intervertebral Foramina: The two narrow spaces between adjacent vertebrae (one on each side), through which nerve roots pass.

Kyphosis: A normal curvature of the spine when in the thoracic region.

Lateral: To the side of the midline of the body.

Lipping: Extra growth of bone.

Listing: A way to describe the way vertebral segments are in relation to adjacent vertebral segments.

Lordosis: A normal inward (forward) curvature of the vertebral column when in the cervical and lumbar regions.

Lumbar: The five vertebrae that are situated in the lower back region, below the thoracic vertebrae and above the sacral vertebrae in the spinal column.

Massage: A manual therapeutic modality of the body that increases circulation, reduces muscle spasm and promotes relaxation and well-being.

Magnetic Resonance Imaging (MRI): An imaging technique that uses magnetic forces to obtain detailed images of the body.

Neural Canal: A canal formed by neural arches of vertebrae. Houses the spinal cord.

Neurological: Having to do with the brain, spinal cord and nerves, i.e. the nervous system.

Nucleus Pulposus: The jelly-like substance in the middle of the spinal disc.

Objective Complaints: Areas of concern found through chiropractic examination.

Orthopedics: The science of prevention, diagnosis and treatment of diseases and abnormalities of musculoskeletal systems.

Palpation: Examining the spine with your fingers; the art of feeling with the hands.

Pathophysiology: The physiological processes associated with disease or injury.

Peripheral Nerve System (PNS): The section of the nervous system lying outside the brain and spinal cord. Cells of the peripheral nervous system carry information to and from the central nervous system.

Physiology: The study of the physical and chemical processes involved in the functioning of the human body.

Posterior: Toward the back of the body.

Preventive Care: Comprehensive care emphasizing priorities for prevention, early detection and early treatment of conditions.

Prognosis: A prediction of the future course of a condition or illness based on scientific study.

Prone: Lying face downward.

Radiograph: A film with an image of body tissues that was produced when the body was placed adjacent to the film while radiating with x-rays.

Range of Motion: A measurement of the extent to which a joint can go through all of its normal movements.

Reflex: An involuntary and almost instant movement in response to stimulus.

Sacrum: A large triangular bone located between the two hipbones and formed from fused vertebrae.

Sciatica: An inflammation of the sciatic nerve, usually marked by pain and tenderness along the course of the nerve through the gluteal region, thigh and leg.

Scoliosis: Sideways (lateral) curving of the spine.

Slipped Disc: Incorrect name for disc herniation.

Spasm: A painful and involuntary muscular contraction.

Spinous Process: A bony projection of a vertebra that serves as an attachment for muscles and ligaments.

Spurring: Any sharply pointed projection, as from a bone.

Subjective Complaints: Problems identified by the patient and reported to the doctor, such as lower back pain, aching joints, etc.

Subluxation: An interference of the nervous system due to a misalignment and or abnormal motion of spinal vertebra which causes improper communication with associated organs, muscles and tissues of the body.

Superior: Upper or higher in position.

Supine: Lying on the back.

Technique: A practical method or procedure applied to correct spinal problems.

Therapy: Methods used to assist in the relief of pain, rehabilitation and restoration of normal body functions.

Thoracic: The region of the spine between the neck and the lumbar vertebrae. The ribs connect with the 12 thoracic vertebrae.

Transverse Process: The lateral bony wings projecting from the side of the vertebrae for muscle attachment.

Trigger Point: A taut, palpable spot in muscle that is painful to touch and refers pain to another body area.

Ultrasound: High frequency sounds beyond a human's hearing whose vibrations can be used for heating internal structures of the body to speed the healing of a joint, muscle or tendon.

Vertebra: One of the bony segments of the spinal column.

Vertebral Subluxation: See Subluxation.

Wellness Care: Health care that is not prompted by sickness or injury but by an attempt to achieve or promote an optimum state of physical, mental and social well-being.

Whiplash: Injury resulting from a sudden sharp whipping movement of the neck and head, such as with a person in a vehicle that is struck from the rear by another vehicle.

X-rays: Electromagnetic radiation that can penetrate many objects and reveal their internal structure by recording the shadow cast on photographic plates.