

# Vienna Chiropractic Associates, P.C.

## News



January–April 2010

## Brain And Empire

deterioration. In short, when things were not well with the roads, things were not well with the empire.

Your brain is the most important and irreplaceable organ in your body. All nerves lead to the brain. Efficient movement of information to and from the brain requires that the nerves be kept as clear as possible.

If this flow of information is disrupted, nothing may be visibly amiss with the brain at first. An MRI of the brain would show no obvious pathology. However, orders from the brain will not always

*Continued on page 2*

Rome was once the most important and irreplaceable city in the ancient Mediterranean world. In those times, a cliché was born: “All roads lead to Rome.” The roads leading to and from Rome were vital, not only for the movement of goods and people, but also for the flow of information. Maintaining efficient flow of information to and from the city required that the roads be kept as clear as possible.

If this flow of information were disrupted, nothing would be visibly amiss at first. An observer with a bird’s eye view of Rome would not see the buildings collapsing or the city burning. However, orders from the capitol would not always reach

officers in the field in an efficient manner. Reports from provincial governors would not always reach the emperor in a timely and accurate way. The emperor would make increasingly ill-informed decisions. The tone of life in the empire would become subtly disturbed; the city would not be completely at ease. If this situation continued for long, portions of the empire, possibly including Rome itself, would eventually develop visible signs of

### Office Hours

Monday . . . . .	10:30 am–1:00 pm 3:00 pm–7:30 pm	Friday . . . . .	8:30 am–1:00 pm 3:00 pm–6:30 pm
Tuesday . . . . .	10:30 am–1:00 pm	Saturday . . . . .	9:00 am–1:00 pm (selected Saturdays)
Wednesday . . . . .	10:30 am–1:00 pm 3:00 pm–7:30 pm	Sunday . . . . .	Office closed
Thursday . . . . .	Office closed		

**Note:** We make every effort to provide you with an accurate calendar. That being said, this schedule is made several months in advance and unforeseen circumstances may periodically require minor changes to that schedule.

### Office Calendar

<b>January</b>	<b>April</b>
1 . . . . . New Year’s Day, closed	10, 24 . . . . . Saturdays open
2, 16, 30 . . . . . Saturdays open	18 . . . . . Independence Day
17 . . . . . Independence Day	<b>May</b>
<b>February</b>	8, 22 . . . . . Saturdays open
13, 27 . . . . . Saturdays open	17 . . . . . Independence Day
22 . . . . . Independence Day	
<b>March</b>	
13, 27 . . . . . Saturdays Open	
22 . . . . . Independence Day	

For appointments, call 703-938-6441. If we are closed, or away from the desk, you will reach a tape. Please leave a message and your call will be returned as soon as practicable. Parts of Vienna are, for some reason, unkind to cell phone transmission. If your attempt to reach us by cell phone is unsuccessful, please try again. Thanks!  
**Please note:** As of January 1, 2010 our Tuesday hours will be 10:30 am to 1:00 pm.)

### Inside This Issue

Brain Fitness Tips . . . . .	2
Veterans’ Program . . . . .	2
Divergent Thinking Practice . . . . .	3
Chiropractic Q & A . . . . .	4
Sometimes, Love Hurts . . . . .	4
Snow Schedules . . . . .	5
The Space/Time Continuum on 21 <sup>st</sup> Century Capabilities . . . . .	5
Chiropractic Independence Days . . . . .	5
Multipacks . . . . .	5
Student Discounts . . . . .	5
Insurance Assignment . . . . .	5
Discover Card Accepted Here . . . . .	6
More Referrals . . . . .	6

reach the muscles and organs in an efficient manner. Reports from sensors in those muscle and organs will not always reach the brain in a timely and accurate way. The brain will make increasingly ill-informed decisions. The tone of the body's organs and muscles will become subtly disturbed; the brain will not be completely at ease. The biomedical term for this situation is "dysponesis."<sup>1</sup> If this situation continues for long, portions of the body, possibly including the brain itself, could develop noticeable clinical problems.

Doctors of chiropractic search for misalignments or restrictions of the muscles that can disturb nerve function (subluxation). To the average person, the most familiar manifestation of subluxation is pain. Pain and related signals can disturb the functions of those portions of the brain responsible for alertness and emotional states.<sup>2</sup> Another familiar manifestation of subluxation is disturbance of muscle tone. This can be due to disruption of muscle-control signals from the brain<sup>3</sup> or disturbed feedback of information to the brain from sensors in the joints, muscles, tendons and ligaments.<sup>4</sup>

Less familiar to most people is the growing body of evidence on the effects of subluxation on more clearly brain-related functions such as reaction time<sup>5-7</sup>, and such brain-related disorders as learning disabilities<sup>8-12</sup>. When the connection between the nerves and the brain becomes clear, the possibility of such brain-related subluxation effects comes as no surprise.

In short, when things are not well with the nerves, things are not well with the brain. Chiropractic adjustments assist the body in correcting subluxation – an important and common source of nerve interference.

## References

1. The definition of "dysponesis" is: "A reversible physiopathologic state consisting of unnoticed, misdirected neurophysiologic reactions to various agents (environmental events, bodily sensations, emotions and thoughts) and the repercussions of these reactions

throughout the organism. These errors in energy expenditure, which are capable of producing functional disorders, consist mainly in covert errors in action-potential output from the motor and premotor areas of the cortex and the consequences of that output. From Friel, J.P. (Editor). *Dorland's Illustrated Medical Dictionary: Twenty-Eighth Edition*. W.B. Saunders, Philadelphia, 1994.

2. This happens due to the influence of a neurological circuit known as the "paleospinothalamic tract" on portions of the brain known as the "ascending reticular activating system" (located primarily in the pons and medulla oblongata) and the "limbic system" (incorporating subcortical portions of the cerebrum as well as portions of the hypothalamus and other midbrain structures). From Cramer, G.D. and S.A. Darby (Editors). *Basic and Clinical Anatomy of the Spine, Spinal Cord, and ANS*. Mosby, St. Louis, MO, 1995. **See also** Liebman, M. *Neuroanatomy Made Easy and Understandable*. Aspen Publishers, Gaithersburg, MD, 1991. **See also** Purves, D., G.J. Augustine, D. Fitzpatrick, L.C. Katz, A-S LaMantia, J.O. McNamara and S.M. Williams. *Neuroscience*. Sinauer Associates, Sunderland, MA, 2001.
3. This happens via the "corticospinal tract." See the citations for Reference #2.
4. Via the "dorsal column-medial lemniscal system," the "dorsal spinocerebellar tract," the "ventral spinocerebellar tract," and the "cuneocerebellar tract." All of the above relay proprioceptive information to the cerebellum, except for the dorsal column-medial lemniscal system, which relays proprioceptive information to the parietal lobe of the cerebrum. See citations for Reference #2.
5. Smith, D.L., J.M. Dainoff, J.P. Smith. "The Effect of Chiropractic Adjustments on Movement Time: A Pilot Study Using Fitts Law." *J Manipulative Physiol Ther*, 2006; 29: 257-266.
6. Lersa, L.B., C.M. Stinear and R.A. Lersa. "The Relationship Between Spinal Dysfunction and Reaction Time Measures." *J Manipulative Physiol Ther*, 2005; 28: 502-507.
7. Kelly, D.D., B.A. Murphy and D.P. Backhouse. "Use of a Mental Rotation Reaction-Time Paradigm to Measure the Effects of Upper Cervical Adjustments on Cortical Processing: A Pilot Study." *J Manipulative Physiol Ther*, 2000; 23: 246-251.
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10. Araghi, H.J. "Oral Apraxia: A Case Study in

Chiropractic Management." *Proceedings of the National Conference on Chiropractic and Pediatrics* (ICA), 1994: 34-41.

11. Lovett, L. and C.L. Blum. "Behavioral and Learning Changes Secondary to Chiropractic Care to Reduce Subluxations in a Child with Attention Deficit Hyperactivity Disorder: A Case Study." *J Vertebral Subluxation Research*, 2006(Oct 4): 1-6.
12. Pauli, Y. "Improvement in Attention in Patients Undergoing Network Spinal Analysis: A Case Series Using Objective Measures of Attention." *J Vertebral Subluxation Research*, 2007 (Aug 23): 1-9.

## Brain Fitness Tips

Our long-forgotten ancestors picked up stones, and pondered the uses to which these objects could be put if they were made rounder, flatter, or sharper. They went on to express their experiences in cave paintings.

This pre-history makes one thing clear: Creativity has always been a basic function of the human brain. It is the engine of innovation as well as the origin of art. It is also the source of solutions to the everyday problems of

continued on page 3

## Veterans' Program

If you have been deployed to Afghanistan or Iraq since September 11, 2001, we have a gift for you. Whether you were injured, injured and still receiving care, have headaches or other pain or would just like to treat your spine to more optimal functioning, we'd like to offer you a year's care at no cost to you. It's our way of saying, "Thanks, and welcome home." Again, please ask at the front desk for more information

ordinary people. Keeping your creative powers alive throughout life is obviously beneficial.

Our first paper on the effect of chiropractic adjustments on creativity has been accepted for publication.<sup>1</sup> This is the first phase of an on-going research project. Participants were asked to write down as many uses as possible for a common object in ten minutes. This is called the Alternate Uses test, and it measures an aspect of creativity called “divergent thinking.”<sup>2-5</sup>

The Alternate Uses test was administered before and after a chiropractic adjustment. We also interviewed each participant (subject) by phone two to eight days after the adjustment to see if they noticed any change in their creativity.

Of the ten subjects, six had improved Alternate Uses test scores post-adjustment. When interviewed, all ten subjects reported an increase in creativity, improved focus or energy in relation to an on-going creative project, or both.

One subject was a 47-year-old librarian by training, currently a full-time housewife and mother. Her Alternate Uses test score improved substantially after the adjustment. When interviewed three days post-adjustment, she stated that she had previously felt “stuck” with regard to her project of reorganizing her home according to the principles of the ancient Chinese art of Feng Shui. After the adjustment, she realized that repairing her front door was a key aspect of this project. This realization, which she described as an “aha moment,” proved to be a turning point in her project.

Another subject was a ten-year-old student who was working on drawing body parts of various imaginary creatures. His Alternate Uses test score declined somewhat after his adjustment. However, when interviewed

three days later, he stated that he now had better ideas about how to draw the body parts. For example, he had drawn the face of one character so that when seen from one side, it appeared happy, and sad when seen from the reverse side. The subject added, “I don’t usually draw like that.”

While these results are preliminary, they suggest that improved creativity or creative energy is one more brain benefit of the chiropractic adjustment. (Please see the previous article, “Brain and Empire.”) In addition to getting regular chiropractic care, we suggest you practice divergent thinking as a brain fitness exercise (see box below).

If you have ever participated in a “brain storming” session, the Divergent Thinking Practice may feel familiar. It is an individual version of that group experience.

You set the time frame, so the time investment is up to you. A minimum of three minutes per session is recommended.

Instead of using a set time frame, you can choose a set number of uses (ten alternate uses for a business card, twenty alternate used for a pillow, etc.). This way of practicing is advocated by

at least one creativity consultant.<sup>6</sup>

***We’d like to offer our sincerest thanks to all of those who volunteered to be subjects in our creativity research. The research is still ongoing. We are particularly interested in working with people currently suffering from creative block.***

## References

1. Masarsky, C.S. and M. Todres-Masarsky. “Effect of a Single Chiropractic Adjustment on Divergent Thinking and Creative Output: A Pilot Study, Part I.” *Chiropractic Journal of Australia*; Accepted for Publication in 2010.
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3. Wallach, M.A. and N. Kogan. *Modes of Thinking in Young Children: A Study of the Creativity-Intelligence Distinction*. Holt, Rinehart, and Winston, New York, 1965.
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5. Runco, M.A., G. Dow and W.R. Smith. “Information, Experience, and Divergent Thinking: An Empirical Test.” *Creativity Research J*, 2006; 18(3): 269-277.
6. Michalko, M. *Cracking Creativity*. Ten Speed Press, Berkeley, CA, 1998.

## Divergent Thinking Practice

Choose a common object that you encounter in your surroundings, and write down as many alternate uses for it as possible within a set time frame. The more original the use is, the better. If no object occurs to you, thumb through a magazine, and pick out a common object from an illustration. You can also have a partner suggest an object to you. If you are completely unable to think of an object, start with one from this list:

*Tire, spoon, pocket comb, pencil, hardcover book, pillow, coin, cardboard tube, ribbon, battery, leaf, pebble, wristwatch, concrete block, tile, iron, business card, tooth pick, coffee mug.*



# Chiropractic Q & A

## **Q. What does chiropractic do?**

**A.** Chiropractic care eliminates “static” from your nervous system’s transmissions to your body’s cells. When the joints between vertebrae, cranial bones and other structures either lock up against each other or move too much, inappropriate pressure is placed on your nerves, which causes them to send dysfunctional messages to the involved body parts. This problem has the potential to cause pain and other types of malfunction. Because your body is designed to allocate its energy resources carefully, the above problem, called a vertebral subluxation complex, may sap needed attention from sites throughout your nervous system. (See “Ergotropic Function” in the May ’03–August ’03 issue of our newsletter: [www.neurologicalfitness.com/newsletr/news0503EXC.htm](http://www.neurologicalfitness.com/newsletr/news0503EXC.htm).) By gently influencing the disrupted vertebrae, etc., to move properly, the disruptive pressure is removed, allowing for the continued flow of nerve transmission, appropriate to the involved person’s physical capacity.

## **Q. So, chiropractic is not about getting me out of pain?**

**A.** It certainly can be, since restoring appropriate nerve transmission will correct problems in areas affected by irritated nerves and sometimes throughout the system. Pain has its origin and maintenance in injured/insulted nerves, although once a muscle or group of muscles tightens from improper nerve transmission, it can be part of a feedback loop, i.e., a nerve causes a muscle to spasm, the tight muscle continues to irritate the nerve by putting pressure on it, and so forth. That being said, if you are having headaches, neck or back, arm or leg pain, the chances are excellent that chiropractic can help you.

## **Q. If chiropractic works to relieve problems throughout the nervous system, what else does it help?**

**A.** Depending on where the problem is and what else is involved (you can have fleas **and** ticks and sometimes crickets, too), any part of your body that receives nerve supply from your central nervous system can be affected by improper nerve activity. Speak to the doctors if you have questions about general health problems and their relationship to chiropractic. We will answer them to the best of our ability. Sometimes, we will ask you to see an MD (if you don’t have one, we can help you try to find someone who suits your needs), if we think we are seeing multiple problems or problems that should be co-managed through chiropractic and medicine.

## **Q. I often see children in the office. Kids don’t have back pain! Why are they there?**

**A.** Kids do get back pain and headaches as well as many other problems arising from a nervous system that is being prevented from functioning properly. It is, unfortunately, easy to miss these problems since children are often reluctant to mention any situation that might curtail their play time, they often get past their symptoms, if not the sources of the problems, quickly and, last but not least, we don’t want to believe our kids have problems that won’t go away with a good night’s sleep and proper nutrition. Remember that from the day they are born, children are a veritable storm of development, with their spines changing with each stage of crawling and walking, as well as hormonal changes. They then get involved in sports, computer use and music lessons, among other activities, with all of these making postural demands on them. Add pollution and stress (yes, kids are often very stressed) and they are open to every spinal problem adults may develop. The good news is, children usually do heal quickly with appropriate care.

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## Sometimes, Love Hurts

As most of you are aware, our furry, (and sometimes feathery or scaly) friends are revered at this office, as well as by many of you. That being said, it is not an act of infidelity to recognize that sometimes adjusting to our pals’ habits can take a little attention.

As the nights get chilly, Jasmine and Rover are going to find sleeping in your bed an even more attractive proposition than they did in the heat of summer. Unfortunately, they may want considerably more than what might be considered their fair share of sleeping space. (Yes,

kids will do the same thing.) We don’t want to disturb them, so they’re free to stretch out. We wake up in a space more suited to a ten-pound cat, they flex each little claw in the remaining 80% of the bed. Friends, move them. Negotiate if you must, but it’s your bed, you are the one going out to earn pet food money after a few short hours of rest and you need your sleep! Those massive paws shoving you to the edge of the bed may feel very loving—and they probably are—but they may also be the very reason your adjustments aren’t holding as well as when you

are able to sleep comfortably. You can't spend the night in a position more appropriate to horseback riding, advanced yoga or simple avoidance instead of sleeping and expect to feel rested in the morning.

The best-behaved pet will occasionally develop a sudden interest in a squirrel or passerby, landing you in positions you never thought possible. It gets a little more difficult in winter, but try to stay on a clear, dry surface to maintain stable footing. If possible, switch the leash from one hand to the other periodically to keep the pull on your body balanced. Don't let out too much leash if it looks like your friend is feeling frisky. It will be easier to remain in control and avoid injury to your shoulders, neck and arms, as well as any part of you that could end up being dragged after your lovesick friend. Sometimes, a little time spent with a competent trainer can make both of you a lot happier and much safer.

It is apparently true that most accidents happen at home. In the spirit of that information, remember that you are not alone, especially around stairs or on the way to answer the doorbell. Dogs, cats and the occasional errant guinea pig often seem to feel that the quickest way to get anywhere, especially the front door or bottom of the stairs, is between your legs. Check the location of the stock before you move!

While the kitchen is a workspace to you, it is one big, exciting, potential smorgasbord to Constantine and Ariadne. If your pet loves to help you in the kitchen, make sure you are aware of his/her presence and location before you lift something hot or start cutting, so that you don't end up a casualty to curiosity (only to have them sniff and walk away anyway.) The cardinal rule of kitchen survival is "back up carefully and be ready for affectionate but firm head butts." You never know who's a big quarter of an inch behind you.

The advice mentioned above will help you avoid a lot of problems, depending on discipline, luck and reappropriation of the chain of command. While caring for any

open wounds caused by your buddies is up to you, and maybe your MD, if it was really intense, we stand ready to help with any problems caused by aggressive sleep positions, yanking and rough landings.

## **Snow Schedules**

Quite simply, we don't necessarily close because it's snowing, so if you have an appointment you will not be attending, call us at least two hours before the appointment time. This way, we can either give the time to someone else or, if it's actually beginning to pile up, go home ourselves, instead of thinking you are moving slowly and carefully but are on your way, in which case we will be waiting for you. If we decide to close because of inclement weather, we will call you as soon as we know, unless we don't have a good way to reach you.

For other information on helping yourself through the snows of Northern Virginia, we refer you to the Jan '06-April '06 and Oct '03-August '03 issues of our newsletter, available online at [www.neurologicalfitness.com/newsletr/news0106.htm](http://www.neurologicalfitness.com/newsletr/news0106.htm) and [www.neurologicalfitness.com/newsletr/news1003EXC.htm](http://www.neurologicalfitness.com/newsletr/news1003EXC.htm).

## **The Space/Time Continuum on 21<sup>st</sup> Century Capabilities**

More simply put, if your appointment is at 11:00 and you leave your home, office or the grocery store at 11:00 to get here, it's not going to work out as well as you might think. Please call us if you're going to be late, so we can make sure everyone gets the time they need without intruding on anyone else's. Thanks!

## **Chiropractic Independence Day**

In an effort to make chiropractic care available to everyone, we have set aside selected Mondays as Chiropractic Independence Days. On these days, there are

no set fees. Your decision to seek care is based solely on your need for same, independent of insurance or lack of it or your financial situation. Payment, unless you elect to write a check or charge it, goes anonymously into a box at the front counter. The amount is determined by you, with you factoring in what you feel the care was worth and what you are in a position to pay. Medicare is the one exception, since those fees are federally mandated. We do accept new patients on Independence Day, as long as there is availability in the schedule. This is an excellent way to introduce family, friends and co-workers to chiropractic. It does make sense to book your appointment early, since these time slots do fill in quickly.

## **Multipacks**

If you are interested in having your spine checked regularly on an early intervention basis, you may be interested in our six- or twelve-visit packs or our eighteen-visit family pack. You'll save money while safeguarding your spinal health and mobility. Our staff is happy to answer your questions about any of our programs.

## **Student Discounts**

We now offer a student discount for people in full-time (twelve or more credit hours, of which 75% require on-site presence) programs in college or post-secondary vocational programs. If you would like to take advantage of this program, please ask for more information at our front desk (703-938-6441).

## **Glossary Term:**

### **Insurance Assignment**

The above term indicates a situation in which the provider receives the patient's co-pay then sends a completed insurance form to the insurer for reimbursement. The insurance company will reimburse the provider directly. The patient is

*continued on page 6*

