

OPTIMAL HEALTH UNIVERSITY™

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Fall Into Fitness: How Chiropractic Boosts Athletic Performance

Patients of your doctor at Hickory Chiropractic Clinic realize that regular chiropractic care can have a tremendous boost on athletic strength and endurance. That's why star athletes rely on chiropractic to remain in peak condition. But you don't need to be a professional athlete to reap the accelerated athletic performance associated with chiropractic.

According to the British Chiropractic Sports Council, "Chiropractic, particularly sports chiropractic, can be of enormous benefit in treating and preventing sports-related injuries and improving athletic performance."

Sports stars Michael Jordan, Venus Williams, Tom Brady and Aaron Rodgers rely on chiropractic care for injury prevention and a competitive edge. Why? Because they — and countless other professional and non-professional athletes — know that optimal spinal health boosts muscle function and wards off injury. It also bolsters range of motion, coordination and balance. But that's just the beginning.

The Nervous System Connection

Your doctor at Hickory Chiropractic Clinic teaches patients that chiropractic care has a positive effect on the nervous system — data that was rein-

forced in a study published in the *Journal of Manipulative and Physiological Therapeutics*.

The article focused on 96 doctors of chiropractic and 960 patients (10 patients per doctor). Researchers measured heart rate variability (HRV) levels, an indicator of parasympathetic nervous system activity, before and after the patients underwent **chiropractic adjustments**: safe and gentle maneuvers used to restore alignment of spinal bones (vertebrae). This type of misalignment is referred to as **vertebral subluxation**.

All patients received a single chiropractic adjustment. Follow-up included monitoring 192 patients over a four-week period with two HRV recordings per week. The other 768 patients were tested just twice: before and after the adjustment (*J Manipulative Physiol Ther* 2006;29:267-74).

The results showed that chiropractic adjustment appeared to positively alter HRV readings, thus improving parasympathetic nervous system activity.

What does this have to do with sports? The parasympathetic nervous system automatically regulates routine bodily functions like heartbeat, digestion and sleep. It allows the body to function at optimal capacity.

By addressing the nervous system first, your doctor at Hickory Chiropractic Clinic focuses on the primary



operating system of the body.

The Hidden Causes Impeding Performance

Doctors of chiropractic also identify underlying areas of dysfunction, which prevent athletes from achieving optimal performance. These impediments include vertebral subluxations, weakened muscles and motor-control issues.

Armed with this knowledge, chiropractors "implement a multilevel treatment protocol that involves manipulative therapy, restoration of faulty biomechanics, strengthening of weakened muscle groups and motor pattern re-education," say researchers from Ontario's Canadian Memorial Chiropractic College (*Clin Podiatr Med Surg* 2001;18:351-62).

Symptoms May Be the Last Sign

Keep in mind that symptoms, such as pain, are often the final (not the first) signal of a hidden spinal dysfunction. According to sports researchers, "pain symptoms may frequently arise only when there is functional overloading [such as that associated with sports-related activities], while pain is absent or not disabling in normal daily activity." (*Chir Organi Mov* 1994;79:47.)



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Athletes with spinal joint disorder may be unaware of the problem until a certain motion or an increase in practice time results in disabling pain — or until their talent seems to drop for no apparent reason. That's why it's important to take a proactive stance and schedule regular chiropractic wellness visits.

Run Faster and Safer

One published research case study illuminates how chiropractic care can help boost a runner's performance — and restore spinal health.

After logging 100 to 150 kilometers per week for three years, a 32-year-old Australian marathon runner had to abandon his passion for speed due to increasingly worse low-back and left-hip pain: the latter of which included a "clicking" in the front of the hip.

After three weeks of chiropractic care, the patient reported no pain in his back or hip. The clicking in his hip had also disappeared. He was, as the saying goes, off and running again (*J Manipulative Physiol Ther* 2005;28:1-7).

Eat Healthy

Doctors of chiropractic also help develop athletic performance by encouraging patients to eat healthy, well-balanced meals.

Without the proper nutritional fuel, the body cannot execute at top capacity. It's like setting off on a cross-country road trip with a half-tank of gas, dirty oil and bald tires.

As providers of holistic health care, doctors of chiropractic provide patients with nutritional information from the latest peer-reviewed medical journals. This educational aspect of chiropractic allows patients to work and play hard without overtaxing their bodies.

Drink Plenty of Water...

Doctors of chiropractic will also teach their athlete patients about the importance of hydration.

Every organ, joint and cell of the body requires water to function properly. That's especially true with athletes.

For most people, proper hydration can be achieved by drinking eight to 10 glasses of water per day. Athletes, however, require additional hydration to compensate for what's lost through perspiration.

Symptoms of dehydration include an increase in heart rate, labored breathing, dizziness and confusion. Skin may also become dry and lack elasticity.

... But Not Too Much

Despite all of its healthful qualities, overindulging in water can also force an athlete out of the game. Drinking extremely excessive amounts of water reduces the body's vital supply of salt. This phenomenon — known as hyponatremia — causes the brain to swell and push against the skull. "This condition can result in nausea, fatigue, disorientation and vomiting. Severe cases may lead to seizures, coma or even death." (*AORN* 2004;79:121.)

Patients most susceptible to hyponatremia include women, people with slower marathon finishing times (more than four hours) and runners who take nonsteroidal anti-inflammatory drugs (NSAIDs) in close proximity to race time (*AORN* 2004;79:121).

More on NSAIDs

Another way doctors of chiropractic enhance athletic ability is by helping patients steer clear of common painkillers, such as nonsteroidal anti-inflammatory drugs (NSAIDs).

"NSAIDs are commonly used by athletes competing in endurance events and are a risk factor for hyponatremia and altered renal function." (*Med Sci Sports Exerc* 2006;38:618-22.) The list of NSAIDs includes Motrin® and Advil® (ibuprofen), Relafen® (nabumentone), Naprosyn® and Aleve® (naproxen).

In addition to their connection to hyponatremia, NSAIDs produce symp-

toms of heartburn in 50 percent of all users — while sparking the development of peptic ulcer disease in another 20 percent (*Am J Med* 2004;117:63-71). Gastrointestinal tract conditions are also a well-known side effect of NSAIDs. All of these conditions take a toll on the body, deteriorating athletic performance.

Instead of relying on drugs to temporarily manage pain symptoms, doctors of chiropractic address the root causes of the problem.

Sports Talk

By promoting a proactive, preventive strategy, this chiropractic office helps athletes cut their likelihood of injury while facilitating their nervous system to maximize athletic aptitude.

If you or someone you care about is involved in sports, schedule an appointment today for a chiropractic sports checkup.



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