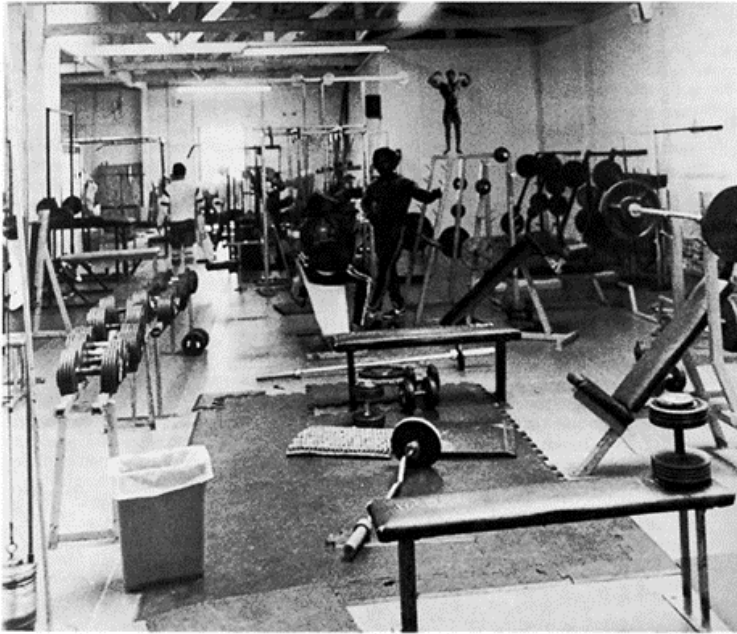


# WHY EVERYONE WHO LIFTS NEEDS A GOOD CHIROPRACTOR



by Keith Wassung



Weight training, once the bastion of bodybuilders, football players and strength and power athletes, has seen an enormous growth in popularity in recent decades. People from all walks of life and all age groups are engaging in regular weight-training workouts.

The number of fitness center memberships in the United States has steadily increased over the last decade. In 2017, over 55 million people were members of one of the thirty-six thousand health clubs in the United States. According to the Center for Disease Control about 20.8% of the population in the United States engage regularly in weight training activity. <sup>1</sup>

Resistance training is a form of physical activity that has been traditionally perceived as a component of training programs limited to athletic individuals and competitive weightlifters seeking to improve performance. However, this perception is no longer the case.

Extensive research reveals that not only is resistance training an effective method for improving muscular strength, endurance, and power, but it is also effective for improving the overall health status of most individuals – not only competitive athletes. <sup>2</sup>

New scientific research on the health benefits of weight training are beginning to debunk the many myths that have undermined the positive aspects of training with weights. The studies focus on the physiology and biomechanics of strength training and bring us more evidence than ever before about what we need to do in order to be in vital health and function as well as great physical shape through all stages of life.





# BENEFITS OF RESISTANCE TRAINING



Weight training affects metabolism and other physiological systems. Research has demonstrated that weight training helps to regress obesity and resolve metabolic disorders.

2. Weightlifting can create non-bulky muscles that have stronger thicker fibers, which with power training have shown to enhance performance in endurance sports (the myth has always been that weightlifting builds bulk which slows down athletes in endurance sports).

3. Resistance exercise amplifies the adaptive signaling response in the muscles. It redoubles the benefits of the cycling or running. It also, as other studies shows, tunes up an out-of-shape nervous system.<sup>2</sup>

4. Weightlifting improves the coordination of muscles working together, which increases an athlete's power.

5. Even if no greater muscle mass is seen, weight training can increase the activation of motor units within muscles.

6. In skeletal muscle, studies have shown evidence of newly formed nuclei, as well as additional nervous system connections.

7. Resistance training requires an upsurge in brain usage.

8. Certain weight training regimens, without any additional endurance exercise, can in fact replicate most of the health benefits generally associated with running, swimming, and walking.

9. Building muscle tissue increases the muscles' demand for glucose. The muscles pull glucose from the bloodstream so that blood sugar levels don't rise dangerously. This helps to prevent diabetes. Studies have shown that people who weight train had better blood sugar control than those who did not weight train

10. Weightlifting helps to melt away visceral fat as well as fat that builds up around the body's organs, which has been associated with a higher risk of cardiovascular disease and diabetes.

12. Lifting less weight more times produces greater strength gains than the reverse.

13. Weightlifting has been shown to greatly help the elderly stay in shape by keeping the brain active and the nervous system and body attune to the coordination of movement. All of the above help to prevent sarcopenia, the loss of muscle mass that begins in our 40s.

14. Strength training helps to avoid the loss of joint flexibility that comes with aging.<sup>3</sup>

# CHIROPRACTIC AND WEIGHT TRAINING



In the same way the people are discovering that resistance training is not just for muscle guys and shot putters, more people are realizing the lifetime benefits of Chiropractic- it is a natural marriage as they go hand in hand.

What role does Chiropractic play in weight lifting? Weight lifting makes the body stronger by putting more stress on the muscles, bones, and joints forcing them to adapt and become stronger. However, the same stresses (from weight training) can also pull the spine out of alignment. Especially if you are someone that really pushes yourself.

Chiropractic adjustments are valuable to all physical activity, but consistent physical activity, such as lifting weights, is a perfect complement to the chiropractic adjustment.

Athletes have been benefiting from Chiropractic care for many years; however, it has only recently been receiving attention from the media. Athletes of all types, from the weekend warrior to the world-class athlete, utilize Chiropractic because it is a natural method to better health and performance.

The science of Chiropractic is founded on the premise that a properly functioning spine and a proper nerve supply is essential to controlling and regulating the functioning of the human body.

**“An intact nervous system will lead to optimum functioning of the human body.” <sup>4</sup>**

## DORLANDS MEDICAL TEXT

**“All body systems would be immobilized without the nervous system. It controls and regulates every body activity down to the workings of the tiniest cell.” <sup>5</sup>**

## WORLD BOOK ENCYCLOPEDIA OF SCIENCE

When the spine is in its optimal structural position, the nerves are protected and optimal communication exists between the central nervous system and the rest of the body. The vertebrae of the spine are susceptible to certain stresses and forces, which can cause them to lose their proper structural position.

These minor misalignments of the spine, referred to as subluxations, cause nerve interference and weaken the entire structure of the spine





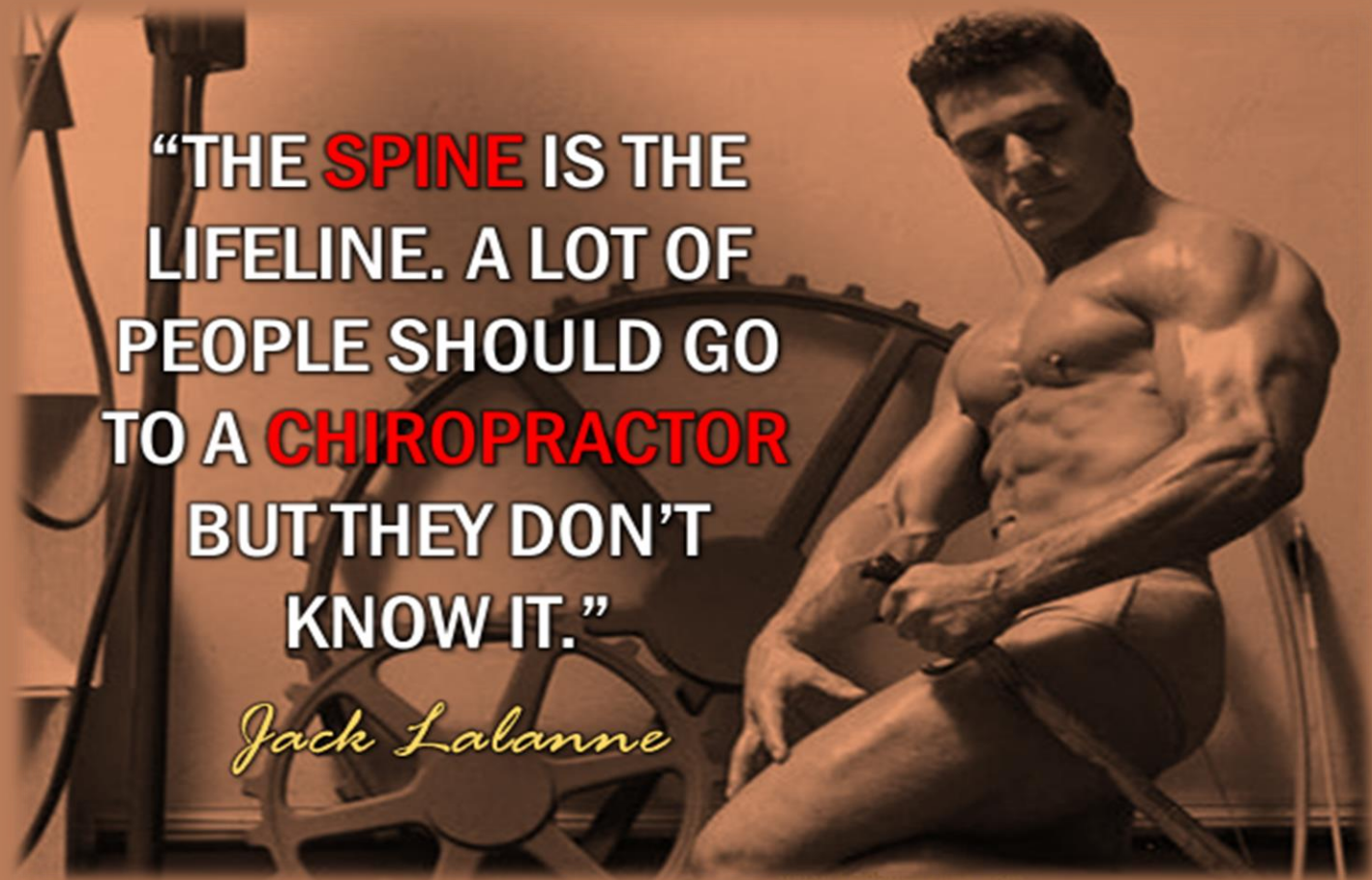


Subluxations can adversely affect the nerves that are exiting from in between the bones of the spine leading to pain, dysfunction, and loss of workout time, all of which will inhibit progress over time.

In addition, the subluxation can result in decreased muscle strength, scar tissue formation, and soft tissue injuries. And, all of this can be happening without any symptoms as the symptom often appears last, as with most disease processes, usually when you least expect it.

Frequently people reach a plateau in the gains they make with weight training. This plateau may be caused or related to a spinal subluxation.

A Doctor of Chiropractic can locate these subluxations and relieve the stress caused from weight lifting. This will help prevent injury and allow you to progress further with your workouts.



**“THE **SPINE** IS THE  
LIFELINE. A LOT OF  
PEOPLE SHOULD GO  
TO A **CHIROPRACTOR**  
BUT THEY DON'T  
KNOW IT.”**

*Jack Lalanne*



**“Subluxations of vertebra occur in all parts of the spine and in all degrees. When the dislocation is so slight as to not affect the spinal cord, it will still produce disturbances in the spinal nerves passing off from the foramina.”<sup>6</sup>**

**DR. JAMES WODDERSEE**  
J. Surgical Treatment, p. 623

**“Subluxation is very real. We have documented it to the extent that no one can dispute its existence. Vertebral subluxations change the entire health of the body by causing structural dysfunction of the spine and nerve interference. The weight of a dime on a spinal nerve will reduce nerve transmission by as much as sixty percent.”<sup>7</sup>**

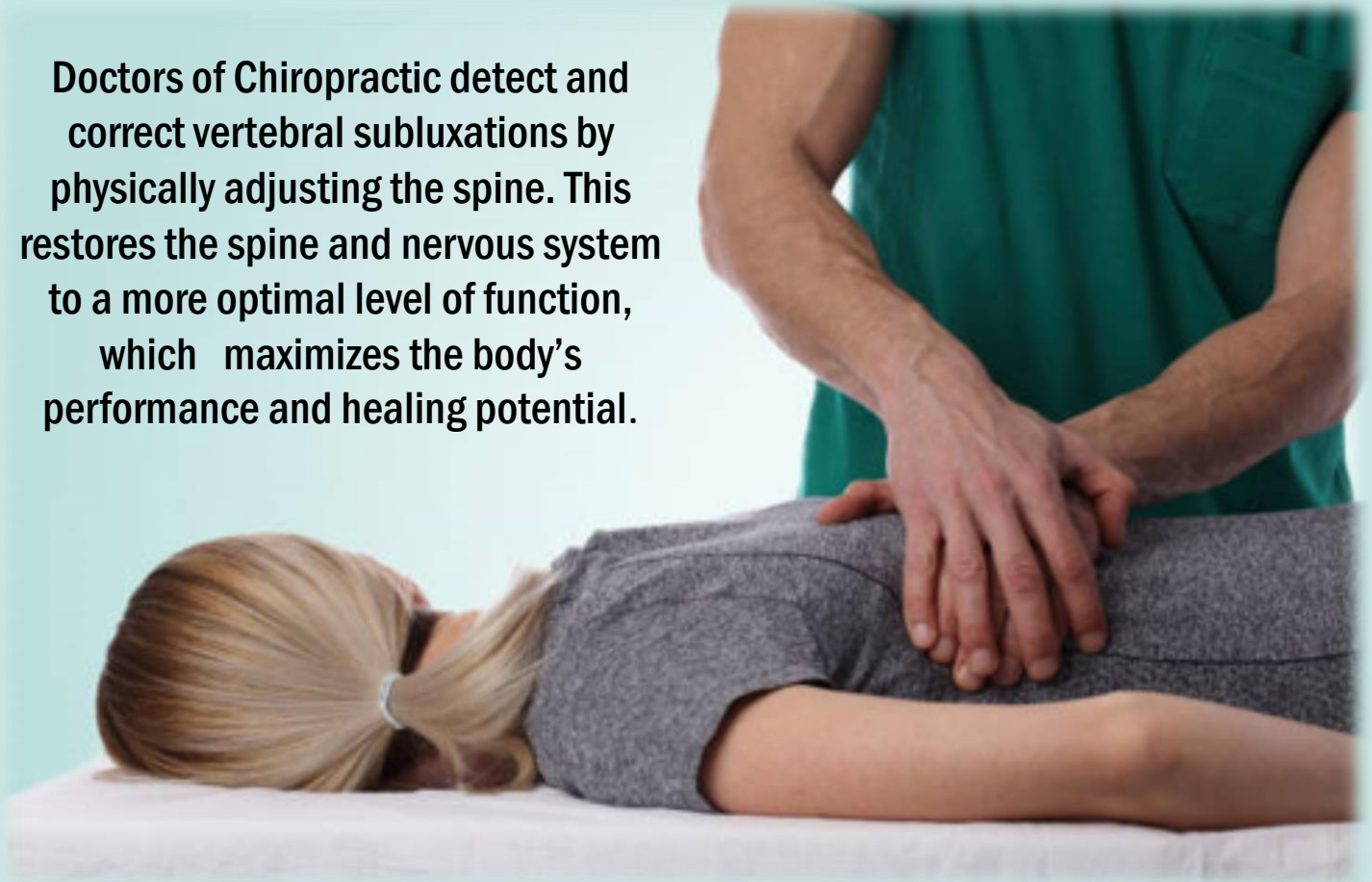
**CHANG HA SUH, Ph.D.**  
Spinal Biomechanics Expert  
University of Colorado

**“Organs supplied by impinged nerves exhibit pathological changes and the more serious the impingement, the more serious the damage.”<sup>8</sup>**

**HENRY WINSOR, M.D.**  
Leach, R. The Chiropractic Theories, p. 132  
Williams & Wilkins, Baltimore, 1986



Doctors of Chiropractic detect and correct vertebral subluxations by physically adjusting the spine. This restores the spine and nervous system to a more optimal level of function, which maximizes the body's performance and healing potential.




Athletes are under a tremendous amount of stress to perform and excel in sports and Chiropractic helps the body to adapt and respond quickly to any changes in the environment.

Anyone who engages in athletics can benefit from regular Chiropractic checkups to ensure that their spine is balanced and free from structural stress and subluxations.

When the spinal column is brought into balance and alignment, the body's nervous system and body biomechanics (posture) are maximized.



- 
- Homeostasis and nervous system function are ultimately connected with posture.
  - Posture affects and moderates every physiological function from breathing to hormonal production.
  - Posture and normal physiology are interrelated.<sup>9</sup>

AMERICAN JOURNAL OF PAIN MANAGEMENT

**“Postural strength and coordination are essential for injury prevention and sports performance.”<sup>10</sup>**

THOMAS HARRIS, M.D.

A study at Columbia and Harvard demonstrated that improved posture actually changed the participants hormone levels resulting in decreased cortisol and increased testosterone. This neuroendocrine profile has been consistently linked to positive outcomes in disease resistance and lifestyle performance.<sup>11</sup>



Athletic injuries are often caused by improper biomechanics or muscle imbalances within the spine, and these are frequently aggravated by improper lifting techniques in the gym.

Because Doctors of Chiropractic are experts in the field of human biomechanics, they are very aware of proper posture and movement. Doctors of Chiropractic focus on the entire structure of the body rather than just the obviously injured part. For this reason, they can often detect and help to prevent an injury that might normally be overlooked or ignored.

It is widely recognized that proprioceptive input from muscles, joints and other receptors is necessary for the accurate control of movement and posture. Loss of proprioception results in large systematic errors in multi-joint movements attributed, at least in part, to impaired motor programming.<sup>12</sup>

JOURNAL OF NEUROPHYSIOLOGY

**“You obviously cannot compete at your fullest if you are not in alignment, and your body cannot heal itself properly if your spine is not in alignment.”**

DAN O'BRIEN,  
OLYMPIC GOLD MEDALIST

Traditional medical professionals specialize in the management and care of fractures, dislocations, lacerations and damaged tendons and ligaments. However, many athletes leave the hospital with as much spinal stress (subluxations) as they were suffering from when they entered.

Many professional and high-level amateur athletes protect themselves from costly and career-threatening injuries through chiropractic care. Correcting subluxations and restoring balance to the musculoskeletal system can strengthen the body and reduce the likelihood of injury.



**Chiropractic has helped keep me injury free and that is half the trick to staying competitive.**

**LEE LABRADA**  
Professional Bodybuilder

**Chiropractic helps athletes win without pain and aids in enhancing performance naturally.**

**TONYA KNIGHT,**  
Professional Bodybuilder



**Bodybuilders and fitness people have been using chiropractic very extensively in order to stay healthy and fit. I found it was better to go to a chiropractor before you get injured. We are a perfect team-the world of fitness and the world of chiropractors.**

**ARNOLD SCHWARZENEGGER**



# Chiropractic and Performance

An anatomical illustration of the human spine and ribcage, viewed from the back. The vertebrae are shown in a light tan color, and the ribs are visible on either side. A network of red and blue lines, representing blood vessels or nerves, is overlaid on the spine. The background is a light blue gradient.

Chiropractics work on the basis of the nervous system, and that working with the nervous system puts the body in optimal shape. The same principle is used when working in the strength training field. Chiropractic adjustments done on various parts of the body work to activate parts of the nerves that are responsible for causing contractions of the muscle. These contractions work the muscle, thus causing muscle strength to increase. You can compare this to lifting weights.

Each time the muscles flex, you are contracting that muscle and releasing it. So, in essence, activating the neural receptors (known as mechanoreceptors) assists in building the muscle up and strengthening it.

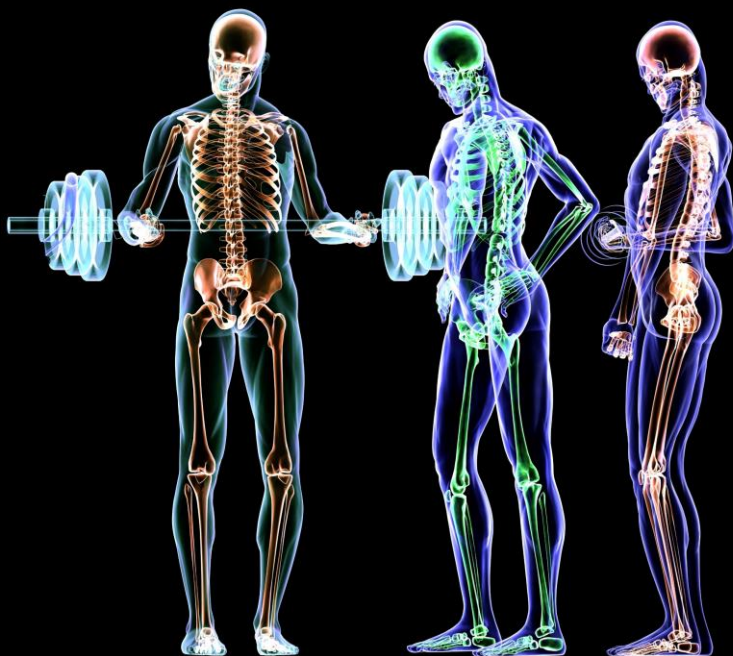
In addition to stimulating the nerves, chiropractic adjustments set the joints and bones right, aligning them into the best position possible. This not only makes movement easier, but assists in decreasing injuries that may be associated with strength training. This is especially important since continuing to work out on misaligned muscles can cause long-term wear and damage to the area.

Furthermore, working out on misaligned muscles may reduce the amount of muscle strength you're able to build since muscles do not tend to contract properly over misaligned joints. This means that you may work-out for hours with very little result. By properly aligning the joints, muscles are more likely to contract, and are thus better able to increase in strength.

Clearly, chiropractic care can do a lot to assist in strength building exercises, but this isn't the only way that chiropractic care can help in exercising. Exercising puts a great deal of stress on the body, especially extraneous exercises. In strength training, you're constantly reaching for new heights, pushing yourself to the next great marker.

Chiropractic care can help your body cope with the stress that this exercise puts on it by adjusting the body to benefit from the work-out, instead of tensing up and becoming sore. This benefit also allows you to get out the next day and exercise more. Those who do not properly care for their bodies before and after exercise not only risk injury, but may not be able to engage in regular exercise (which is the most beneficial to muscle strength and weight loss) because they are too sore to do anything the next day. Positive experiences when exercising also motivate you to continue to work hard, so the psychological benefit is there as well.





Spinal health will determine athletic success more than any other factor. This is a bold statement commensurate with its accuracy: without a healthy spine and nervous system, muscular function and immune system efficiency are severely compromised and limited.

**“Spinal joint dysfunction affects the brain response accuracy and performance.”<sup>13</sup>**

Spinal health also determines exercise form and bodily function. The simultaneous contraction of large muscle groups requires nerve signal efficiency that is possible only if the mechanism of transmission and propagation - the central nervous system - is free of subluxations and impediment. Without a healthy spine and nervous system, adaptive adaptation to exercise cannot occur, and the body becomes susceptible to injury, illness and disease.

Karyn S. Marshall was the first woman in history to snatch more than 200 lbs, the first American woman to win a World Championship in weightlifting, and was the strongest woman in the world at one point (Guinness Book of World Records) with International Weightlifting Federation five world records).

She later became a Doctor of Chiropractic stating:  
*"I found my chiropractor to be the most important health professional in my athletic career."*

**“I would estimate that at least 90% of world class athletes use chiropractic on a regular basis to prevent injuries and to improve their performance.”<sup>14</sup>**

SEAN ATKINS, PH.D.  
EXERCISE PHYSIOLOGIST

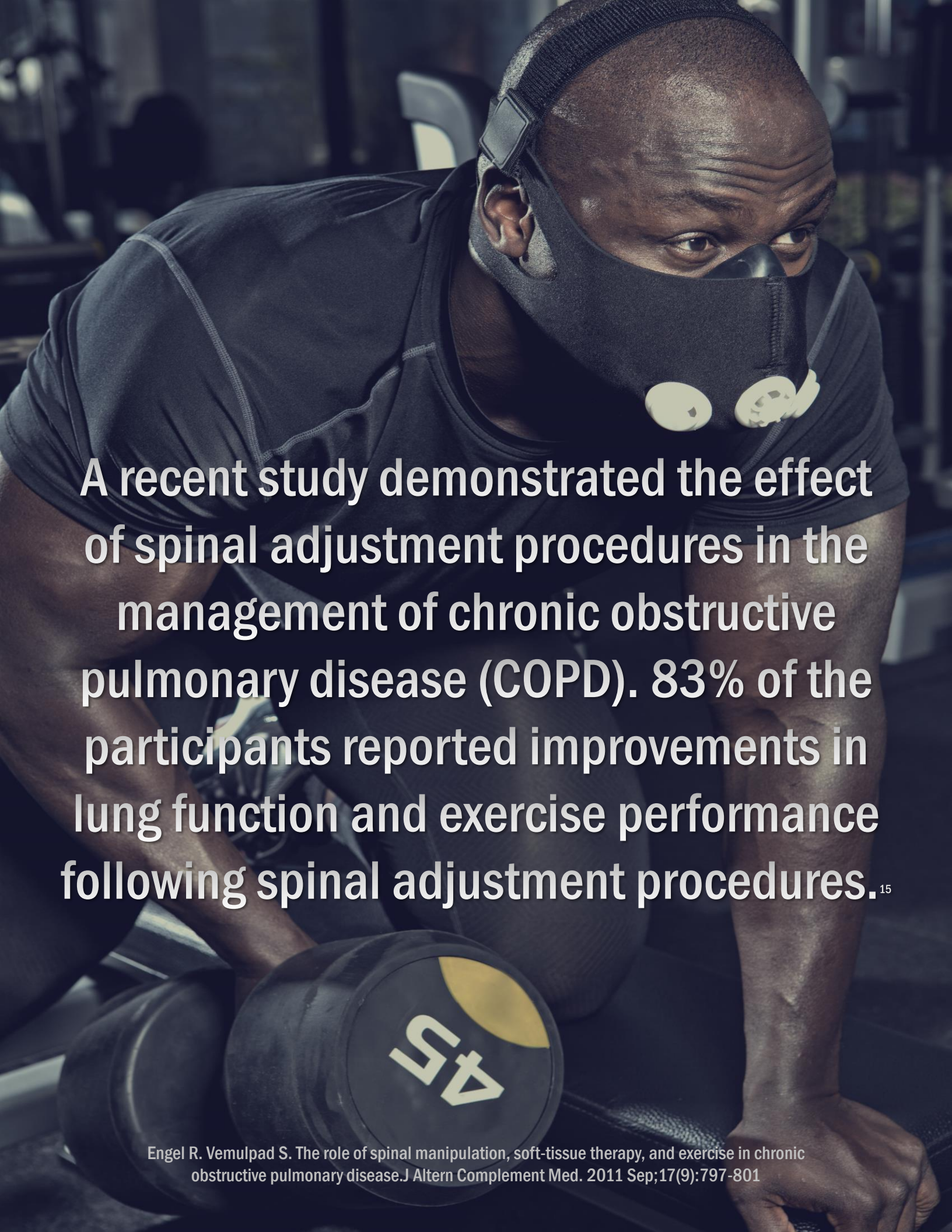


**A single-blinded, prospective, comparative, pilot, randomized, clinical trial was performed with 18 athletes of both sexes from a judo team currently competing on a national level. One group received chiropractic care and one did not. Measured analysis of each group demonstrated that the grip strength of the athletes receiving chiropractic improved compared to those not receiving chiropractic. <sup>14</sup>**

**JOURNAL OF MANIPULATIVE & PHYSIOLOGICAL THERAPEUTICS**





A man in a gym setting is wearing a black respiratory mask with two circular filters. He is leaning over a 45lb dumbbell. The background is a blurred gym environment.

A recent study demonstrated the effect of spinal adjustment procedures in the management of chronic obstructive pulmonary disease (COPD). 83% of the participants reported improvements in lung function and exercise performance following spinal adjustment procedures.<sup>15</sup>



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# THE EDUCATION AND TRAINING OF A DOCTOR OF CHIROPRACTIC

Educational requirements for doctors of chiropractic are among the most stringent of any of the health care professions. The typical applicant at a chiropractic college has already acquired nearly four years of pre-medical undergraduate college education, including courses in biology, inorganic and organic chemistry, physics, psychology and related lab work. Once accepted into an accredited chiropractic college, the requirements become even more demanding — four to five academic years of professional study are the standard. Because of the hands-on nature of chiropractic, and the intricate adjusting techniques, a significant portion of time is spent in clinical training.

Doctors of chiropractic — who are licensed to practice in all 50 states, the District of Columbia, and in many nations around the world — undergo a rigorous education in the healing sciences, similar to that of medical doctors. In some areas, such as anatomy, physiology, rehabilitation, nutrition and public health, they receive more intensive education than their MD counterparts.

Like other primary health care doctors, chiropractic students spend a significant portion of their curriculum studying clinical subjects related to evaluating and caring for patients. Typically, as part of their professional training, they must complete a minimum of a one-year clinical-based program dealing with actual patient care. In total, the curriculum includes a minimum of 4,200 hours of classroom, laboratory and clinical experience. The course of study is approved by an accrediting agency which is fully recognized by the U.S. Department of Education. This has been the case for more than three decades.

Records from insurance and court cases have constantly shown that chiropractic is the safest portal of entry health care available to the public today. Although no healthcare procedures are 100% safe, chiropractic stands on its record of safety and effectiveness unmatched in healthcare.

The chiropractic adjustment is a safe, efficient procedure which is performed nearly one million times every working day in the United States.

There is a singular lack of actuarial data that would justify concluding that chiropractic care is in any way harmful or dangerous. Chiropractic care is non-invasive, therefore, the body's response to chiropractic care is far more predictable than its reactions to drug treatments or surgical procedures. Of the nearly one million adjustments given every day in this country, complications are exceedingly rare.

**COMPLIMENTS OF**  
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