The Chiropractic Profession Has Always Championed Proper Motion as an Essential Component of a Healthy, Vibrant Life

Your Doctor of Chiropractic (DC), as part of your team, will help keep you healthy, moving properly, and independent.

By the Numbers:

90% of workplace injuries are caused by workers' unsafe actions.

Common workplace injuries include overexertion, falls, muscle strain, and repetitive motion strain.

84% of non-fatal workplace injuries are caused by slips, trips, falls, or overexertion.

30% of workplace injuries are musculoskeletal.

36.5% of workplace deaths are caused by falls.

Every 11 seconds in the USA, an older adult is treated in an emergency room for a fall.

Every 19 minutes, an adult dies from a fall.

"Falls are #1 cause of head injury, hip & arm fractures" Hospital Trauma Coordinator.

The number of falls rises with age; 1 in 3 people over 65 falls each year.

The leading cause of broken hips in adults is falling.

Chiropractic care and other prevention interventions save lives and save money.

\$34 billion was paid for fall injuries in 2013

Estimated \$67 billion-plus in 2022

Question:

"Why is a DC the perfect fit in your comprehensive health and safety team?"

Answer:

Chiropractors have doctorate-level education in healthcare, biomechanics, kinesiology, exercise therapy, adjusting, physiological therapeutics, and other non-medical/surgical healthcare.

Chiropractic Adjustments:

Are Evidence-Based

Reduce fall injury risks

Improve sight and sound integration

Improve visual acuity and visual field size

Improve joint position sense

Decrease step reaction time (people who can take a quick step are less likely to fall)

Improved perception of what is going happening in our environment and makes us less clumsy

Improved spinal function

Improved strength and decreased muscle fatigue

Decreases pain

Improves nerve function

Corrects abnormal motion in arms & legs

Stimulates the master control center of our nervous system, the Pre-Frontal Cortex

Are 2.5 times more effective in 12 weeks than six months of exercise

Complementary to Chiropractic Care, your DC may provide other common-sense tips to prevent falls and move around safely, such as a workplace safety evaluation and employee injury or fall risk screening. Employee injury and fall risk screening will identify potential risks such as; prescription or recreational chemical imbalances, changes in prescription, side effect syndrome, general anesthesia trauma, chemotherapy trauma, and surgical trauma.

Injury or Fall Risk Prevention Includes:

Evaluation or Screening, Assessment, Education, Intervention

Education: How to move around more efficiently, injury prevention, fall prevention, feelings of instability, irrational fear of falling, injury and fall prevention intervention, proactive safety assessment, seeing an eye doctor proactively, seeing a pharmacist DO/MD proactively for a drug and side effects review.

Preparing for your Environment:

As you know, it is impossible to totally prepare the environment for falls. But, preparing yourself to respond appropriately to environmental changes is of paramount importance. Regular chiropractic care helps to avoid or prevent a fall by keeping you strong, flexible, and reacting properly to environmental challenges. Your best insurance is keeping your workforce strong, flexible, moving properly, and able to respond to environmental changes.

Strong bones prevent injuries. Healthy bones won't prevent a fall, it may prevent a fracture. Proper motion strengthens bones. Making sure your body is moving properly with regular chiropractic care is essential. See your DC to ensure you are moving optimally before exercise!

Your Doctor of Chiropractic may screen for injury or fall risk factors such as:

Have you fallen in the last year?

Do you feel unsteady when standing or walking?

Do you have irrational worry or fear of falling that limits your level of activity?

Have you developed joint pain or stiffness due to medications, injury, or inactivity?

Do you use one or more recreational drug(s)? Have you been prescribed one or more drug(s)?

Have you been prescribed one or more drug(s) for side effects caused by another drug?

Have you ever been under general anesthesia for any surgical or dental procedure?

Have you ever been under chemotherapy?

Your DC may provide a joint motion evaluation and specific full-body chiropractic adjustments.

Your DC may provide information concerning footwear. Rubber-soled, non-skid, low-heeled, lace-up shoes with an orthotic may be recommended.

Your DC may provide exercises for stretching, balancing, and improving muscle strength. Tai Chi prevents falls 43-50% over 12 months. Tai Chi ameliorates characteristics that increase fall risks.

Pubmed.ncbi.nlm.nih.gov #18487892 (1990) Tai Chi for risk of falls. Pubmed.ncbi.nlm.nih.gov #28736853 (2017)

Your Doctor of Chiropractic may provide a referral for:

Nutritionist for blood sugar evaluation

Activities to reduce injuries & fall risk; OsteoStrong, Tia Chi, Martial Arts, Yoga, Physical Therapy

Optometrist for a vision check or correction

Audiologist for a hearing check or correction

DO or MD for heart problems, prescription dependency, side effects syndrome (SES), other prescription effects

ER for stroke symptoms

Chemical dependency counselor for prescription or recreational dependency

Everyone IS INJURED at some point in time. You may have seen an accident or injury change someone's life forever. Injuries may break bones or cause other problems like an emergency room visit, disability, chemical dependency, or even death.

A fall without injury may cause an irrational fear of falling, depression, or social isolation. Fear of falling is a typical concern. An irrational fear of falling may lead people to avoid walking, working, or participating in other everyday activities. Don't let irrational fear of falling keep you from being active.

Intrinsic Causes of Injuries & Falls:

- Decreased hearing, decreased visual acuity, sluggish reflexes, gait and balance deficits, age, history of falls, balance abnormalities, abnormal nerve flow, diabetes, heart disorder, thyroid dysfunction
- Pain or abnormal motion in the foot, ankle, knee, hip, or spine.

Extrinsic Causes of Injuries & Falls:

 Distracting events, poor environmental design, slippery floors, environmental toxins, chemical cleaners and solvents, recreational drug use, over-the-counter drugs, prescription drugs, side effect syndrome, general anesthesia, and chemotherapy. **Preventable risk factors** are common recreational drug or alcohol side effects, including dizziness, sleepiness, brain fog, cognitive decline, joint pain, or stiffness. All prescription drugs, including anesthesia and chemotherapy, have side effects. Many are as high as 525; the average is 70.

Chiropractic Care

- Individuals under chiropractic care maintain the ability to carry out activities of daily living, live independently, preserve their health & generally feel better.
- Individuals who do not receive chiropractic care had a notable decline in all these areas.
 Is included in all truly comprehensive injury and fall prevention programs. Information from CDC, NIH, NCOA & others may be limited in scope and not mention intervention by a Doctor of Chiropractic.

Alternatives to Chiropractic care

• Exercise and/or chemical therapy alone is not shown to improve visual acuity, visual field size, quickstep reaction time, and multi-sensory integration as chiropractic adjustments do.

Wisdom from the ages; chiropractic healthcare concepts have been in use for thousands of years.

Chiropractic Adjustments Build Confidence in Motion

<u>Doug.</u> 40, Electrician; Presented with work-related low back pain resolved with chiropractic care. He felt his arms and upper body got stronger since receiving chiropractic care.

Joseph's 17-year-old daughter received a full body chiropractic adjustment after game 3 of a basketball tournament in which her team played the 4th final game taking the championship.

Joseph, "I am a true believer in Chiropractic; with only one adjustment, I saw my daughter's body change and improve. As a basketball nut, I watch many things on the court. During this game, I noticed my daughter's footing and balance improved. Her strength was improved, she was not falling as much, and her boxing out was stronger. I saw her push a kid three feet back on a box out, and the kid was bigger. Little things, like her running, changed it looked smoother."

Brian: In their early 20's, he had an ACL injury with surgical repair. For the next two years, he walked with a limp and was unable to run. After one specific chiropractic foot and leg adjustment, he immediately felt little to no pain in his knee. He then participated in a soccer game as a goalkeeper without incident. He felt it was a miracle that he could now run. His low back & neck felt freed up. One year later, he continued to be pain-free and returned to running regularly.

Cynthia: 35-year-old aerobics instructor. She developed severe pain in both knees and was dependent on crutches. Chemical treatment two aspirin every 4 hours. She was seen weekly at rehab for several months. After one session of specific foot & leg adjustments, she immediately felt no pain in either knee. She was able to walk & navigate stairs without crutches. She experienced no knee pain for three years. She attributes that she could still lead aerobics classes at age 67 to receiving chiropractic care.

Elaine; 83: Her feet had been numb since polio as a teenager. After several specific spinal foot and leg adjustments, she could feel her feet again after 70 years!

<u>Dave</u>; 80: He had foot, knee, and low-back pain. He walked with a limp and was dependent on a cane, and had to use walls, doorways, and counters for support. Following one session of specific chiropractic spinal, foot, and leg adjustments, he did not require a cane or wall for support. "I feel amazing; I've never felt like this!"

To Schedule regular Chiropractic care, Contact your Doctor of Chiropractic or find one at www.livewellsouthdakota.com.

For a chiropractic workplace consultant, contact Katy Stulc @ katy@sdchiropractors.com.

REFERENCES

- 1. Holt KR. Effectiveness of Chiropractic Care in improving Sensorimotor Function Associated with Fall Risk in Older People. University of Auckland, 2014.
- 2. Holt KR, Haavik H, Lee AC, et al. Effectiveness of Chiropractic Care to improve Sensorimotor Function Associated with Fall Risks in Older People: A Randomized Controlled Trial. Journal of Manipulative and Physiological Therapeutics 2016
- 3.Weigel PA, Hockenberry JM, Bentler SE, et al. The Comparative Effects of Episodes of Chiropractic and medical treatment on the Health of Older Adults. Journal of Manipulative and Physiological Therapeutics 2014;37(3):143-54.
- 4. Weigel PA, Hockenberry JM, Wolinsky FD, et al. Chiropractic use in medicare Population: Prevalence, Patterns, and Associations with 1-year Changes in Health and Satisfaction with Care. Journal of Manipulative and Physiological Therapeutics 2014;37(8):542-51.
- 5. Suter E, McMorland G, Herzog G, et al. Conservative Lower Back Treatment Reduces Inhibition in Knee-Extensor Muscles: A Randomized Controlled Trial. Journal of Manipulative and Physiological Therapeutics 2000;23(2):76-80
- 6. Suter E, McMorland G, Herzog G, et al. Decrease in Quadriceps Inhibition After Sacroiliac Joint Manipulation in Patients with Anterior Knee Pain. Journal of Manipulative and Physiological Therapeutics 1999;22(3):149-53.
- 7. Increased Cortical Drive and Altered Net Excitability of Low-Threshold Motor Units to the Lower Limb Following Spinal Manipulation. World Federation of Chiropractic 12th Biennial Congress; 2013.
- 8. Haavik-Taylor H, Murphy B, et al. The Effects of Spinal Manipulation on Central Integration of Dual Somatosensory Input Observed Following Motor Training: A Cross over Study. Journal of Manipulative and Physiological Therapeutics 2010;33(4):261-72.
- 9. Haavik H, Murphy B, et al. Subclinical Neck Pain and Effects of Cervical Manipulation on Elbow Joint Position Sense. Journal of Manipulative and Physiological Therapeutics 2011;34:88-97.
- 10. Haavik H, Murphy B, et al. The role of Spinal Manipulation in Addressing Disordered Sensorimotor Integration and Altered Motor Control. Journal of Electromyography and Kinesiology 2012;22(5):768-76.