

Low Back Health and Vitality

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It is estimated that over 80 percent of all adults will suffer from low back disorders at some time.ⁱ In fact, more than 31 million North Americans have low back pain at any given moment according to medical research.

Those who have experienced low back pain know how debilitating this can be for days or even weeks at a time. Many people are also forced to avoid some of the recreational activities they enjoy for fear of a recurrence of a low back injury. For those who have experienced back problems, it is essential to find out what can be done to help prevent and recover from low back injuries.

The Price of Back Pain

Back pain can cost individuals and their families much more than days and weeks of lost activity and an exorbitant amount of pain. It can also cost them irreplaceable income from missed work, plus the cost of professional health care treatments, pain-relievers, muscle relaxants and possibly medical devices.

Nationally, low back health now costs the American public well over \$26 billion dollars every year. Some studies indicate closer to \$50 billion. This cost is borne by the health care system, employers and the individuals.ⁱⁱ

Healthcare Expense Breakdown:

Office Visits	\$11.1 Billion
Outpatient Services	\$ 4.7 Billion
Hospitalization	\$ 4.5 Billion
Prescription Drugs	\$ 3.9 Billion
Emergency Room	\$ 1.1 Billion

In addition to these financial costs, loss of quality of life, pain and suffering, decreased earnings and all the associated life complications... low back pain or discomfort can be both very frustrating and devastating. Anyone who has suffered from significant low back pain has recognized that relief from persistent back pain is priceless.

Impact on Life

Most patients recover from low back pain, yet recovery is not always quick or certain. It is essential to strengthen and support your natural healing ability. Following are recovery facts without microcirculation enhancement:

- 60-70% will recover within six weeks.
- 70-90% will recover within three months.
- 10-30% will recover sometime after three months or never fully regain health.

To have survived one back injury also makes you even more susceptible to future problems:

- Recurrence within one year is between 20 to 44 percent (from 1 in 5; to 1 in 2.3 people).
- Lifetime risk of recurrence once or more is an amazing 85 percent.

Of course, this assumes that you even manage to completely heal. It's up to you to take charge and invest in the health and vitality of your back. Once injured, the low back easily becomes more susceptible and re-injury is more likely to occur again!

Helping strengthen and facilitate the natural healing processes of your body can help reclaim priceless time and comfort.

Work Factors Increasing Risk

Individuals who fall in one or more of the following categories should pre-emptively work towards preventing potentially life-altering back injury. The quality of their life and their family's lifestyle can depend on it.

Professional and Weekend Athletes

Heavy Physical Workers:

- Truck Drivers - whole body vibration
- Warehouse - lifting and moving loads
- Agricultural Workers - bending and lifting.
- Construction Workers
- Nurses and Healthcare Workers
- Janitorial Custodians

People who are considered overweight.

People with low esteem or social support

Note, however, that everyone's low back is under tremendous amounts of pressure day in and day out. Following are some powerful statistics on how much pressure the discs or the "shock absorbers" between your vertebrae face on a daily basis and why nourishing them is an absolute must.

Pressure on the Back during Daily Activityⁱⁱⁱ

- a. *Lying on side exerts a 1x pressure factor.*
- b. *Relaxed standing exerts a 5x pressure factor.*
- c. *Standing 'flexed forward' exerts an 11x factor*
- d. *Relaxed sitting exerts a 3x factor.*
- e. *Proper bending lifts of 44 pounds, close to body with bent knees, exerts an 11x factor.*
- f. *Normal bending lift of 44 pounds, exerts a 23x pressure factor.*

Thus, even bending over and lifting properly can exert more than 10 times as much pressure as lying on your side.

To Support a Healthy Back

Low back disorders include spondylolisthesis, muscle and soft tissue injuries and spinal disc problems such as hernias. As you age, normal degenerative processes occur increasing age-related aches and pains and also increasing your chances of suffering from a debilitating back injury.

These changes are further compounded by the overall drying effect commonly seen in the tissues as we age. This leads to visible wrinkling of the skin and a similar non-visible lack of lubrication within all joints emphasizing the importance of proper circulation to provide the lubrication, nourishment and cleansing required.

The vast majority of low back pain results from the simple fact that the lower back supports most of our upper body weight. Therefore, symptoms of low back pain frequently involve soft tissue surrounding the spine even when a disc problem concurrently exists. Thus, ensuring that muscles of the lower back in particular have proper access to minerals to prevent muscle spasm is of vital importance; otherwise, the spine endures additional pressure.

While spinal disc problems can be diagnosed by x-ray or other diagnostic imaging, muscular and other soft tissue injuries often cannot be detected.

In fact, 95% of low back disorders are termed "non-specific" making it imperative to support your natural body's healing abilities. Your body knows what is in need of repair and internal healing is always the optimal course of treatment when other treatments are either not indicated or not available.

Give your Back the Support it Requires

Regardless of whether a person's low back is "healthy and at risk" which accounts for up to 90% of all individuals; or "injured and needs healing support" which accounts for up to 1 in 3 adults that suffered some level of pain in the last 30 days, there is an important health consideration that virtually everyone should consider.

By the time you attain age 21, experts report that the circulation to the discs between your vertebrae are all but dried up. This means that 'microcirculation' through capillaries to surrounding tissues is absolutely essential for lubrication, mineral nourishment and the removal of waste and toxins.

Your body has 18,000 miles of capillaries that feed and cleanse your body's organs, tissue and joints. However, as you age your capillaries can become narrower, twisted and kinked, while at the same time, your blood's viscosity can become thicker. This may increase blood pressure and also reduce the effectiveness of your circulation.

There are four major regions of your back, with 26 vertebrae. Each of these areas need proper microcirculation and nourishment to the surrounding tissue to remain healthy.

- 7 Cervical Neck Vertebrae
- 12 Thoracic Upper Back Vertebrae
- 5 Lumbar Low Back Vertebrae
- 1 Sacrum
- 1 Coccyx

To date, sufferers have used ice packs to cool a sore area – trying to encourage increased circulation to reduce inflammation, nourish and cleanse the area. Alternatively, heat packs (often chemical in nature) have also been utilized to once again provide temporary increase of circulation. The body tries to send more blood to heat a cooled area, or cool a heated area. However, the effect is short term and if the capillaries are restricted, so is the flow of healing blood.

New products have now been introduced that passively vasodilate (enlarge) capillaries to allow a greater, less restricted flow of blood.^{iv} Advancements through Nano-technology have created a nano-scale ceramic compound that is fused into materials to reflect your body's own far-infrared bio-waves back to the targeted area. This has been shown to vasodilate the area, helping to open capillaries to allow greater blood flow.^v

This natural science is called the 'RRE' effect for microcirculation enhancing "Reflective Resonant Energy."

Studies have shown that RRE increased the volume, density and rate of blood flow in human tissue. The finding was that RRE promoting nano-particle material accelerated blood circulation.^{vi}

Clinically I incorporate Reflective Resonant Energy (or RRE) to augment microcirculation enhancement properties into my daily practice. A good health clinician understands that regardless of the injury, healing is dependent upon three basic healing factors:

1. Supply of Oxygen
2. Delivery of Nutrients
3. Removal of Waste By-products

Each of these healing factors is completely dependent upon optimal microcirculation; and through Reflective Resonant Energy, a "virtual" expansion of the width of roads leading to the tissues needing repair is provided.

Unlike the use of 'magnetics' that introduces external EMF (electromagnetic fields) into the body; Reflective Resonant Energy allows your body to enjoy enhanced health support from your body's own natural energy, by simply reflecting our own bio-waves to the distressed target tissue.

Today, many Chiropractic Doctors recommend a Back Supporter to help stabilize and support the low back during discomfort and pain. New Back Supporters are now available that contain the nano-scale ceramic particles which also provide Reflective Resonant Energy to the low back area at the same time. These Back Supporters are light-weight and may be worn all-day while performing tasks or during recreational activity. These help to stabilize the lower back and support low back health by helping to enhance microcirculation, nourishment and therefore, lubrication of the low back area.

Studies conducted at the China Institute of Aerospace Medical Engineering and among three hospitals researchers established that most patients that used functional RRE products experienced effective reduction in symptoms of painful shoulders, lumbago, backache and neurasthenia.^{vii}

If the low back has become strained and inflamed, these nano-particle impregnated Back Supporters are designed to help support your body's ability to reduce inflammation

and increase microcirculation to deliver oxygen and nutrition, plus help remove CO₂, lactic acid and other metabolic debris.

Other Nutritional Support

In addition, daily supplementation with natural herbs such as LingZhi has also been shown to enhance microcirculation^{viii} to lubricate and nourish the spinal area and also support anti-inflammatory properties.^{ix} This is an excellent adjunct to the Reflective Resonant Energy that can help to deliver the healing herbs to the targeted tissue to help reduce inflammation and provide anti-oxidants to the area as well.

Combining therapeutic approaches provides clinical synergy and thus aids in supporting the natural healing processes. Researchers reported in 2003, that LingZhi “possessed significant antiperoxidative, anti-inflammatory and antimutagenic activities.”^x Additional benefits when blending RRE and LingZhi is the enhancement of health promoting ‘chi’ or internal vital energy.

True to the premise of Traditional Chinese Medicine (TCM), supporting the entire body is essential. In addition to LingZhi, Cordyceps can prove a potent adjunct to anti-inflammatory therapies used to help control the pain of an aching back. Clinically I use Cordyceps to nourish the adrenal glands, the very glands critical for the production of cortisol and cortisone, the body’s natural steroidal and other anti-inflammatories.^{xi}

Conclusion

As we age, circulation and lubrication to the discs in the spinal column diminishes. To help maintain low back health and vitality, it is important that we support the surrounding tissue with optimal microcirculation to help lubricate, nourish and oxygenate; while at the same time removing toxins.

Once a low back area is inflamed resulting in immobility, pain or discomfort, the area should be provided optimal microcirculation to assist and help speed the healing as well as to help reduce the risk of recurrence.

ⁱ Vallfors B., Acute, Subacute and Chronic Low Back Pain” Clinical Symptoms, Absentee Working Environment. Scan J Rehab Med Suppl 1985; 11:1-98.

ⁱⁱ MEDTEP Update, Vol. 1 Issue 1, Agency for Health Care Policy and Research, Summer 1994.

ⁱⁱⁱ Wilke HJ, et al., New In Vivo Measurements of Pressures in the Intervertebral Disc in Daily Life. Spine 1999; 24(8):755-62.

^{iv} First Grade Laboratories of TsingHua University

^v Beijing Fine Ceramics Labs., TsingHua University & First Grade Laboratories of TsingHua University.

^{vi} The Institute of Aerospace Medical Engineering.

^{vii} Research conducted at: The Institute of Aerospace Medical Engineering, The First Hospital of Beijing Medical University, Beijing Friendship Hospital and the People’s Hospital of Beijing.

^{viii} Rogers J., Inflammation as a pathogenic mechanism in B disease. *Arzheim-Forsch* 1995;45:439-442.

^{ix} Stavinoha W, Satsangi N, Weintraub S. 1995; Study of the Centaur efficacy of Ganoderma lucidum. *Recent Advances in Ganoderma lucidum research*. Pp.3-7.

^x Lakshmi B, et al., Antiperoxidative, anti-inflammatory, and antimutagenic activities of ethanol extract of the mycelium of Ganoderma lucidum occurring in South India. *Teratog Carcinog Mutagen* 2003; 1:85-97.

^{xi} Kim KM, et al., Methanol extract of Cordyceps pruinosa inhibits in vitro and in vivo inflammatory mediators by suppressing NF-kappaB activation. *Toxicol Appl Pharmacol* 2003;190(1):1-8.

Note: These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.