Is Low Back Pain Inevitable?

by Mia Jerritt

As humans, we imitate nature in a striking number of ways. Our intestines are akin to eels, snakes and worms; hair is similar to moss on a tree; our natural biorhythms are like the tides; fascia is comparable to a spiders web; nostrils are like the gills of a fish; muscles imitate the layers of an onion; our blood and bodily fluids run like rivers or stagnant pools of toxic water; skin is like the bark of a tree; and our bones, muscles, ligaments and tendons are like the skeletal system of a tree or leaf.

Like nature, our systems require movement, hydration, fertilization, nutrition, peace, harmony, sunshine and hibernation. In this era, we exist in a state of mental chaos, sleep deprivation, inactivity, perceived stress and/or real stress, poor nutrition, caffeine, nicotine, poutine, lack of routine and *sitting*.

Prior to the arrival of the computer, back and neck pain was not a common problem in the workplace. People were not restricted to one seated position for hours on end, in a falsely lit environment with copious amounts of caffeine and recycled air. We dug, walked, picked, cooked, slept, lived by the setting and the rising of the sun, and ate as close to nature as possible.

Today we sit more, exercise less, stress relentlessly, drive more, drink regularly, sleep less, and eat worse. This all fuels one of the nation's scariest statistics; according to the ACA (*American Chiropractic Association*), 80% of all North Americans will experience low back pain in their life time. It is the single leading cause of disability worldwide, according to the *Global Burden of Disease 2010*. It is the number two cause of missed work days and visits to our hospital after upper respiratory conditions. And, according to Dr. Joel Press, medical director of the Spine and Sports Institute at the Rehabilitation Institute in Chicago, "sitting all day is the worst thing in the world you can do for your back".

WCB states, at any given time in North America alone, there are over 115 million people living with back pain. After colds and flus, back pain is the number one cause of missed work days and equates to 93 million days of work lost. Over five million people are disabled annually due to back pain. Spinal surgery is the second leading surgical procedure in America.

According to the *Agency for Health Research and Quality*, in

2007, $30.3 billion was paid to providers, such as doctors, physical therapists, chiropractors, massage therapist and other hands on therapists, and to pharmacies. The *Journal of the American Medical Association* reports that spine care costs reached $85.9 billion in 2005. These statistics don't just reflect the working age, but our younger generation as well.

Typically, back pain is categorized into two groups: *acute* which is defined as pain lasting less than 12 weeks, and *chronic*, which is defined as pain persisting for 12 weeks or longer. Most low back pain (LBP) is acute or short term and tends to resolve on its own with no lingering loss of function. LBP is typically treated with NSAIDS, hot/cold packs, pain medication, physical therapy, chiropractors and massage therapy. Think of shoveling too much snow or yard work in the spring. This pain tends to be mechanical in nature, meaning the back was repeatedly used in a way in which it was not meant.

As fitness enthusiasts and fitness professionals, what does all this mean? If we consider the average week, we start with 168 hours per week. If we deduct an average seven hours of sleep per night and 50 hours of work per week, we are left with 69 hours. If we assign 3 hours per day to activities of daily life, such as grocery shopping, laundry, cooking we are left with 48 hours in a week. How many hours per week do your clients exercise? Is it sufficient? Is it the correct type of exercise to minimize the recurrence of low back pain?

Gone are the days of strengthening the back with superficial exercises such as chest press, bicep curls and crunches. Here to stay is the principle of strengthening from the inside out, like the core of an onion. We must teach our clients that our deepest core muscles work in harmony to create a solid and safe foundation for action to occur. The transverse abdominus and the quadratus lumborum unite to support the low back when bouts of strenuous exercise, such as shoveling snow, are required. The multifidus engages to produce segmental stabilization when fine motor movements are required. As we initiate the action of lifting the shovel, the multifidus begins contracting prior to the actual movement of the body. This prepares the spine for the action and therefore prevents it from injury. But it's not just our trunk which requires strengthening to protect our low back. What acts directly on the pelvis and shoulder girdle, acts indirectly on the spine.

We must educate our clients on the concept of functional strength and functional flexibility. Like the tension wires on a bridge, we require dynamic stability along with dynamic elasticity or *mobility* AND *stability*. This can only be achieved through appropriate and consistent activity, which includes both lengthening and strengthening exercises. Being strong and tight can present one set of conditions and being flexible, but weak, a different set of conditions.

Like nature, our bodies crave movement, sunshine, hydration, nutrition, fresh air and harmony. Your body is the most important one there is. It is essential to make the time to keep it strong and healthy and to treat it with compassion and kindness. Everybody gets the body they deserve...eventually.

Mia Jerritt has 30 years of experience in the fitness industry and has spent the past 17 years specializing in working with back injuries as well as many other injures. As a long time Medical Exercise Specialist she has developed a highly successful 6 week back care program called The Healthy Back Program.