

Back Pain and Physical Therapy



Dr. Larry Lake is a licensed psychotherapist and the CEO of BayView Healthcare, as well as its parent organization, the St Johns Welfare Federation. Lake says “as a local non-profit healthcare provider, we are excited about how this FORUM can help share the knowledge and

expertise of the more than 280 healthcare professionals across our continuum of care. In each issue we will address an area of interest to help consumers be even more informed about their health and wellness.”

This FORUM focuses on back pain, two common diagnoses and how a physical therapist can help you. According to the National Institute of Health, 8 out of 10 people will experience at least one episode of significant back pain at some point in their life. According to the Journal of the American Medical Association, in 1997, the annual US health care costs related to back pain were 52.1 billion dollars and climbed to 85.9 billion dollars by the year 2005. If you have ever experienced any form of back pain, then you are well aware

of the dysfunction it can cause in your life. This editorial will provide education about spine health, common treatable medical diagnoses of the spine that physical therapists can treat and physical therapy interventions that can help prevent low back pain.

Jon Cagan has a Doctorate of Physical Therapy and a Bachelors of Science degree in Kinesiology with an emphasis on Fitness, Nutrition and Health. Jon is the Therapy Director for BayView Home Health. He is also an instructor at the University of St. Augustine for Health Sciences, in the Physical Modalities and Spinal Evaluation and Manipulation courses. Jon brings a vibrant enthusiasm to his field and has a professional drive to promote his patient’s health and wellness through physical therapy.

therapist is extensively trained to treat musculoskeletal conditions of the spine. They provide evidence informed interventions that can improve mobility, eliminate pain, and restore function. Physical therapy has been shown to decrease the rate of reoccurrence of low back pain through customized exercise strategies. Conservative treatment through the use of physical therapy may reduce the need for other higher risk medical interventions.



Figure 3

The Spine~

The spine is an amazing structure made up of a series of adjoining bones. It can be thought of as the core foundation of the human body. This framework is the basis for an entire support system and is comprised of different tissues which include the vertebral bones, intervertebral discs, facet joints, joint capsules, ligaments, tendons, muscles, and nerves. To the body, it can be thought of similarly to that of a large tree, requiring a strong and stable root system for its structural support. The body needs similar support for its ability to grow and be strong and to allow for movement. At the same time, the spine must prevent excessive motion where structural stability is needed. Interestingly, research

has shown that some of the (core) stabilizing muscles of the spine will automatically and unconsciously contract immediately prior to lifting an object for its own protection, assuming this system is working correctly. Without a sound foundation (or root system), the body will not function at its optimal ability and is susceptible to injury. The spine is intricate and our functional mobility greatly depends on its health.

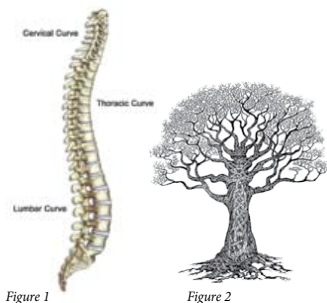


Figure 1

Figure 2

Low Back Pain~

The low back, a region located in or around the lower (lumbar) levels of the spine, is an area where pain commonly occurs. The causes of low back pain can be from trauma, overuse, poor posture, or from an unknown cause. Many times symptoms are present but a cause is unknown. Low back pain may be an indication that something has occurred in the spine structure or by a problem located in the hip or sacroiliac joints (the main joints between the sacrum and the pelvis).

Physical therapists are educated and trained to differentially diagnose between these closely associated areas in order to locate the specific source of your pain. Descriptions of pain will vary from person to person, but will often correlate to a specific tissue. A physical

There are many problems that can arise in the low back region that physical therapists can treat. Two of the more common diagnoses are:

Intervertebral Disk Injury~

Your intervertebral discs are collagen structures that lie between most of the vertebral bones of your spine, including the low back. Intervertebral disk injury (sometimes known as herniation) can occur when there is some form of pathology (tearing or damage) to the outer layers of these discs. Typically, the discs function by allowing for normal body motion to occur, such as with bending or rotating to reach for an object. As described earlier, they also assist

helping to provide a solid framework system. Intervertebral disc injury often coincides with a sudden onset of pain and can be attributed to improper body mechanics. Over time, with recurrent improper body mechanics, the disc structure weakens so much that it finally fails. Since the discs are innervated by nerves, pain occurs. Disc injury is frequently associated with younger individuals, and there is often a specific cause, such as reaching while twisting and lifting an object without properly stabilizing the abdominal core musculature. Symptoms of intervertebral disc injury can include localized pain or it can present neurologically, such as with tingling or numbness into the leg(s).

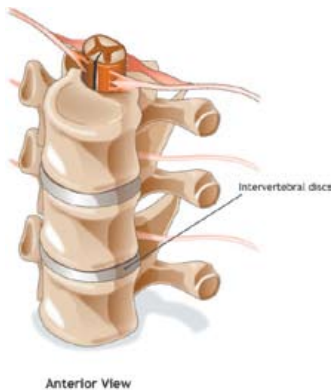


Figure 4

Foraminal Stenosis~

A diagnosis of Foraminal Stenosis is typically seen in the elder population and can sometimes be tied to the loss of fluid within your intervertebral discs, although some fluid loss is normal as you age. This diagnosis occurs when there is a narrowing of the space that nerves pass through after they branch off of the spinal cord and exit the spinal bones. The decreased disc height causes the bones to become

closer to one another and the canal from which these nerves exit becomes smaller, sometimes causing neurological symptoms such as tingling or numbness into the extremities. Stenosis usually forms over time and is not likely due to specific injury. It can occur anywhere through the different levels of your spine, but is commonly experienced in the lumbar and cervical spines. Both disc herniations and foraminal stenosis are effectively examined and treated by physical therapists.

What a Physical Therapist can do for you

Back pain is a symptom of a medical condition, not a diagnosis and can present itself in many different ways. Through a careful physical therapy examination, a specific plan will be formulated for your care. Each person presents in a unique way and physical therapy treatments are geared to be specific to you. An important principle in physical therapy is in the development of spinal muscular strength and endurance. Muscles serve the body as a strong foundation (core) which can facilitate functional freedom. Proper body mechanics are essential to maintaining a healthy spine. Whether or not an injury has already occurred, body mechanics that are practiced with good form and technique may greatly reduce your incidence of a future back injury. Additionally, maintaining a strong spinal core through activity and exercise can assist you in all your daily activities where lifting and moving is required.

If you or someone you know is experiencing any form of back



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pain, please realize there is hope. With the help and expertise of a physical therapist, you can overcome your dysfunctions and move on with your life. BayView

Healthcare offers physical therapy services across its continuum of care, including out-patient therapy, in-patient skilled rehabilitation and home health. If you are experiencing back pain, physical therapy can often help. *NJ*

Photo Credits:

Figure 1: <http://www.cedars-sinai.edu/Patients/Programs-and-Services/Spine-Center/Anatomy-of-the-Spine/Curves-of-the-Spine.aspx>

Figure 2: <http://emesurvivor.wordpress.com/2010/11/29/the-tree-of-life/>

Figure 3: <http://www.sportsinjuryclinic.net/cybertherapist/back/buttocks/sacroiliac.htm>

Figure 4: http://www.google.com/imgres?q=intervertebral+disc&hl=en&sa=X&rlz=1T4ADRA_enUS359US359&biw=1280&bih=600&tbm=isch&prmd=imvnsb&tbnid=GFiaoltnhx&PiM:&imgrefurl=http://www.apatech.com/investors/bonaandspineanatomy.asp%3FselectOrId%3D16&docid=5zc50KfnAR55HM&imgurl=http://www.apatech.com/lib/images/144300-mod1figure10.jpg&w=500&h=590&ei=dA_LTuXwEJSutwfWhaTPAQ&zoom=1&iact=rc&dur=171&sig=109120917787496754974&page=1&tbnh=121&tbnw=103&start=0&ndsp=23&ved=1t:429,r:16,s:0&tx=47&ty=60



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BayView Healthcare, also known to many as the St. Johns Welfare Federation, is a private, not-for-profit comprehensive continuum of healthcare provider founded in 1920. Our superior level of services includes short-term inpatient and outpatient rehabilitation, skilled nursing (BayView Rehab at the Samantha R. Wilson Care Center), BayView Home Health and BayView Assisted Living (The Pavilion and Buckingham Smith), BayView Charities, BayView Wellness and BayView Neighbors. Caring Hands-Caring Community is a separate 501 (c) 3 charitable organization founded in 2004 by our parent organization. It was formed to support the exceptional services and continuum of care provided to people in need of healthcare services and financial assistance.