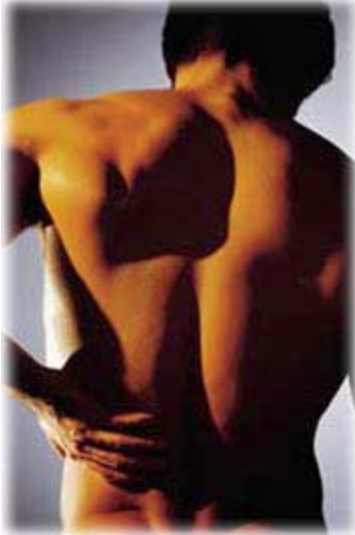


PREVENTATIVE STRATEGIES FOR AVOIDING BACK PAIN

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In last month's article we learned about the high prevalence of back pain. 80% of all Canadians will suffer at least one significant episode of back pain in their lives. Back pain can have a profound negative impact on an individual's work, recreational, and social life. Prevention is a key component in public health initiatives to address common ailments that plague society. The purpose of this article is to outline key preventative measures that can be taken by individuals to help minimize and avoid back pain.

There are many biological tissues that can generate pain in the back. These may include muscles, ligaments, joints, nerves, and bones. All of these tissues can become irritated when exposed to an environment that promotes injury. Back pain prevention focuses on minimizing abnormal and excessive stresses on these biological structures, and keeping them healthy, strong, and functioning.



Lifting is a risk factor associated with back pain. There are several strategies that should routinely be employed during lifting activities, which help make the back more stable and less likely to be injured. Maintaining the natural and neutral curves of your back is important, as this is its strongest and most secure position. Avoid awkward postures such as bending, reaching, twisting, and turning as this makes the back less stable and puts extra stress on biological tissues. Instead, turn your whole body by moving your feet. You should be squared toward the object being lifted and always keep it close to your body. Contracting your abdominal muscles during lifting, lowering, and moving activities improves spinal stability, referred to as bracing.

Other preventative safety measures that should be used during lifting include bending at the legs and not the waist, lifting slowly and smoothly, not jerking, and minimizing lift load and exposure. Taking mini-breaks and job rotations are also helpful in giving the body a rest from lifting. The use of assistive devices such as dollies, handgrips, and pull carts is also recommended. Wait at least an hour after waking before taking part in moderate to physical activity. People are more likely to be injured early in the morning than later in the workday as the biological tissues in the back become more flexible and accustomed to gravity.

Back pain can also result from small cumulative loads placed on the spine over time. When it comes to posture, practice makes permanent, not perfect. Sedentary individuals and those who sit at work are also at risk for back pain. Sitting puts more load and stress on the low back than does walking or standing. Sitting also changes the angle of the pelvis and can weaken muscles in the low back. Poor sitting posture can put strain on all structures in the back. Special care must be taken to distribute weight evenly on both sides, and to maintain the neutral curves of the back. Even slight slouching to the side, backward, or forward puts cumulative stress on biological tissues that can cause significant back discomfort and chronic pain. While sitting, take 10 to 30 second stretch

or posture breaks every 20 to 30 minutes to make sure weight is evenly distributed, your shoulders are not rounding forward, and you are not slouching.

The key components of physical fitness play an important role in back health. *Aerobic* or *endurance* exercise improves the body's capacity to deliver oxygen to working tissues and organs. *Resistance* or *strengthening* exercises increase a muscle's ability to contract and perform. *Flexibility* exercises help maintain a joint's complete movement and range of motion. Exercise can be defined as guided and coordinated movements which strengthen our bodies to withstand occupational, recreational, and everyday stresses. Exercise keeps our biological structures healthy, strong, and functioning. New scientific research is beginning to identify the importance of the core muscles in the low-back and abdominal region in supporting and bracing the low-back. These core muscles help support the spine and give it stability with all movements, making it less susceptible to injury. Trained health professionals can prescribe appropriate core stability and strengthening exercises for your back.

Data from scientific research has also identified several other risk factors for back pain. Smoking, being overweight, and stressful life events have all been linked to back pain. Identifying and addressing these risk factors before they manifest into back discomfort can be crucial in avoiding back pain.

It is important to recognize the early signs and symptoms of back injury, which may include: swelling, bruising, numbness, tingling, pain, and difficulty with movement. Ice should be applied on first signs of symptoms for 15 to 20 minutes at a time. You should contact a licensed health professional who deals with back pain if symptoms do not immediately subside. Ignoring these early warning signs may result in chronic pain down the road.

Although the prevalence of back pain is very high in society, it does not have to be a fact of life. Decreasing your risk for back pain is the first step in prevention. For some, back pain can be dramatically minimized or avoided; while for others it needs to be managed so that its negative effects on activities of daily living can be reduced. Consult with a licensed health professional that deals with back pain for specific details about your circumstance.

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