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Lower Back Article

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“Lower Back Maintenance and Injury Prevention”

Approximately 60 – 80% of U.S. and Canadian population suffer from back pain or injury. Of that percentage, 80 – 90% of those people will heal in less than a week, with or without seeking medical treatment. Less than 5% is an actual intervertebral disk damage or injury, contrary to what most people believe it to be. However, by the time a person reaches their 30's, disk degeneration has already started. For the majority of people that suffer from back pain and injury, there are many ways to prevent and offset injury by strengthening the muscles surrounding the spine: the rectus abdominals, the internal and external oblique's, the transverse abdominals, and the erector spinea group.

Back injuries are classified as either individual or occupational related. Individual risk factors were found to be more psychological, rather than physical. Some examples being poor sleep, depression, carrying excessive weight, substance abuse (smoking, drinking, drug usage and abuse), instability and personal imbalance, and physical inactivity. These risk factors are all indirectly related. Being overweight or obese is a consequence of physical inactivity, which can affect mood and depression, and lead to substance abuse, and so on.

Occupational risk factors are more physically related rather than individual. Sitting for prolonged periods of time, overuse injuries (twisting, lifting, static standing), and increased on-the-job stress levels. “The Boeing Study” followed over 3,000 volunteer employees for a period of time to study causes of back injuries. Surprisingly, researchers found that physical activity

was only a partial factor in injury. What they also found was that stress and smoking contributed greatly to back injury.

Most common back problems are caused by muscle and tendon strains. It is common to believe that most injuries happen spontaneously, but they actually happen over a period of time. Micro tears in the muscle or tendons happen over time, until total failure causes a macro tear, which is the painful injury that occurs. Poor posture, incorrect lifting techniques, muscular imbalance, chronic standing or sitting are all risks for micro tears.

Education and prevention can decrease the chances of back injury over time, reducing the chances of a macro tear. Physical exercise not only promotes physical benefits, but increases postural and physical awareness, self-esteem, and other psychological factors. Other benefits may include a healthy or ideal weight, which can also relieve strain placed on the back.

For people that are prone to occupational risks, muscular endurance is particularly important. When muscles surrounding the spine are strong, the back can withstand heavier work loads for a sustained period of time. It is also suggested that people sitting for prolonged periods of time stand up every 50 minutes of sitting.

By adding aerobic exercise and strength training for at least five days, thirty minutes a day, can have a positive impact not only on the back but it increases awareness in postural alignment. Adding core stability work, such as yoga, is also beneficial to injury prevention. It is recommended that the person focus on endurance and “functional” range of motion rather than increasing flexibility in the spine. Stability rather than mobility is the key factor.

Though a large portion of the population will suffer from back pain at one point in time, there are measures to prevent serious injury rather than treat it after an injury has occurred. Not only will exercise enhance our physical well being, but it will also benefit our psychological well being, giving a greater sense of personal balance and stress management.

Works Cited:

Bracko, M.R. (2004). Can We Prevent Back Injuries? *ACSM Health & Fitness Journal*, 8(4), 5–12.