

Personal Training by Robert J. Bovee

Researched & Written by Robert J. Bovee Certified Master PPT, RTS, ETS, FTS, LMS, WMS, HWFS, SNS,SSCS, MES, E/FT, PSCS, PRCS

Protect Your Spine

Who hasn't suffered from low back pain or stiffness at one time or another? Have you ever experienced tension and tightness in the neck and trapezius muscles? It is all about balance. The spine has three normal curves and a change in one curve affects the other two. Your ribs are attached to the thoracic or mid back area making it the least movable of the three. This results in the neck and lower back being very intimately related. An injury in one often leads to eventual damage to the other because they compensate for each other.

If you suffer an injury from which the neck muscles are not repaired, the lower back will compensate to reestablish the best degree of balance possible. This eases the pressure on the nerves of the neck and decreases the pain. However, the lower back is now out of balance and more susceptible to injury and muscle damage over time due to increased muscle stress.

A similar situation often occurs if the lower back is injured first. The neck compensates and becomes unbalanced, which causes aching in the lower back. If an unbalanced area is injured, the pain will usually not go away because the area of primary injury is unable to compensate for the new injury. This can lead to long-term problems and pain unless the muscle damage is repaired. The pain may even alternate from the neck to the low back as the body tries to help itself by letting each area have a periodic rest from the nerve pressure. The excess muscle stress generally gets worse and over time causes even more muscle damage and tightness. Prevention, therefore, is very important.

To prevent a problem from occurring, the potential causes must be properly understood. The origin of neck and low-back pain and tension is really rather simple. This pain is usually caused by damaged muscles pulling the spinal vertebrae and other related bones out of their normal positions. This puts pressure on nerves and causes pain. Even this balanced tightness can produce muscle spasms or excessive stress in related areas. The muscle damage is sometimes equal on both sides of the body causing tension and stress to be experienced without actual pain.

The muscle damage can occur in two different ways. One is from a direct injury that tears the muscle. If not treated properly, the muscle will heal with scar tissue, become shortened and pull the bone or bones attached to it out of position. The smallest, most freely movable bones - namely the vertebrae - are the most vulnerable to this. The second cause of muscle damage is excessive stress over a long period of time. This stress comes from either an imbalance somewhere in the body, improper use of the body or poor posture.

Rotating to one side while lifting, holding the telephone between the shoulder and the ear, and sports like tennis, which tend to develop muscles more on one side of the body than the other, are common causes. Poor posture, especially incorrect sitting posture, is probably the leading offender. Sitting poorly is a common problem, but even sitting with good posture can cause certain muscles to become shortened and tight. These shortened muscles stress other areas and are more easily damaged. The solution is three-fold. The first step is to learn how to sit, stand, move, and exercise in a balanced manner to minimize muscle stress.

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Here are a few tips for proper sitting: Sit with your feet flat on the floor, knees level with or slightly above your buttocks and hips back as far as possible. Sit up as straight and tall as you can and then relax about **10-15%**. This is a good sitting posture. A firm seat is best and a lumbar roll or support behind your lower back can be very helpful. Keep your head up. When writing, use a flat surface and use your eyes to look downward instead of flexing your neck forward. When reading, incline your book or material upward so your head stays up.

Secondly, tight muscles in the front of your neck can restrict blood flow to the thyroid gland, slowing your metabolism and making it easier to gain weight (fat). Some people experience weight loss after having these muscles treated. This head-forward position also affects your middle and lower back, causing a hunched-over posture. Many of these conditions can be corrected with a good, but not comprehensive, stretching program. A non-comprehensive program is quite simple, easy to follow, and extremely powerful in reducing stress and tension and preventing lower back and neck pain. If you are not sure how to do these stretches or which stretches to do, contact me at my office. I will personally go over them with you.

The third part of the solution is to balance the musculoskeletal structure of your body. Since bones are moved by muscles, muscles are the key. Your exercise program must be balanced and all opposing muscle groups worked. Many train their chest muscles far more than those in their back, which can create an imbalance in the shoulder joints, resulting in shoulder pain and dysfunction and/or neck and upper-back problems. When tightness and imbalance from muscle damage or improper training occurs, balance must be reestablished.

Many therapists and doctors try to stretch the tight muscle and strengthen the opposing ones. This approach is helpful in some cases where large muscles are affected, but it has a number of inadequacies and disadvantages. It often begins a lifelong project of stretching and strengthening an imbalance, which takes too much time and gives only temporary relief. It is also ineffective in some areas of the body and can actually lead to increased tension. The benefits will be limited if the muscle damage is not treated equally on each side of the body.

My approach is simple in concept but more complex in application. The muscle damage is broken up using precise treatments so the affected areas can heal and revert back to their normal length. This often occurs in relatively few sessions and can essentially restore the area to normal. Properly balanced training techniques and adherence to the principles set forth in this article will be tremendously effective in preventing back and neck pain.

For more information, please contact Robert J. Bovee at **(585) 330-0614**.