Treating and Preventing Overused Muscles/Joints

By Perry Nickelston, DC, FMS, SFMA

Overused muscles and joints negatively affect your life. Soreness and pain restrict your ability to perform simple tasks of daily such as sitting, standing, walking and sleeping. Symptoms may even disappear for awhile with rest; however they inevitably return with more intensity. Overuse injuries occur to muscle, joints, ligaments and connective tissue (fascia) when they are stressed without adequate time for repair. Providing the body optimal time for recovery and regeneration is essential to treatment and prevention. Overuse of muscles and joints is primarily the result of micro-traumatic injuries that wear down the body. Micro injuries are small movements repeated on a regular basis for extended periods of time that fatigue and breakdown the body. Examples include typing on a keyboard, raking leaves, exercise, prolonged sitting, etc.

Injuries can occur anywhere and at anytime, yet are most common in the workplace. People spend 8-18 hours a day, 5-7 days a week performing repetitive movement patterns, causing an imbalance in the musculoskeletal system resulting in the overuse of certain muscle groups. Overuse injuries can become chronic, resulting in pain and dysfunction that can last for years. When one muscle group is overused, an opposing (functional opposite) muscle group becomes underused due to compensation. If you don't use it, you lose it! For example, if you have chronic overuse in the bicep of your arm, the opposing tricep may be weak. When this imbalance programs itself in the musculoskeletal system, the body does not move efficiently. Instead of muscles working together to perform a specified function, they work against each other, causing the body to exert more energy to perform the same task that previously was perceived by the body as 'easy.' Now it takes more effort and energy to complete a given task making the body more vulnerable to injury.

Muscles - Copyright â Stock Photo / Register Mark When muscles are short and tight, they lose strength, power, and efficient function. Chronically tight, tissues impinge structures around and beneath them such as nerves and blood vessels; causing disorders associated repetitive strain injuries like carpal tunnel syndrome. Muscles attach to bone and short muscles shift bones out of alignment causing joint imbalance. The body does like imbalance. In an effort to obtain balance your brain will begin to compensate in surrounding areas to improve efficiency. Before long you have a domino effect of dysfunction throughout the body.

Muscle imbalance is the cause of most musculoskeletal disorders in the body. Muscle imbalance and dysfunctional movement are the fundamental cause overuse injuries. Most therapy interventions focus on the quick fix site of pain "band-aid solution', without addressing the underlying muscle imbalance. Focus on the site of pain and the source of dysfunction to achieve maximum long term results of treatment and prevention.

So what action steps can you and your chiropractor take to help you move and feel good again? Remember the 72-hour rule for professional intervention. If self applied treatment at home via rest, ice/heat, and over the counter medication does not help alleviate symptoms seek professional medical care. A Doctor of Chiropractic will evaluate your musculoskeletal system for imbalances and implement a strategy to restore structural balance. Spinal balance is the aim for chiropractic treatments. Restoring proper motion to joints and locking in that new motion with therapeutic exercise to gain stability and control of movement is the goal. Your chiropractor will do manual adjustments and muscular massage to restricted spinal joints. They may also apply other modalities to alleviate inflammation and pain such as heat, ice, ultrasound, electric muscle stimulation, laser therapy, pain creams, etc.

At home you can use a moist heating-pad for 5 minutes to warm the affected joint and surrounding muscles, preparing them for stretches and light exercises. Ice is recommended for acute injuries to reduce swelling and inflammation. DO NOT stretch into painful patterns. Go to your safety and comfort level. If you stretch into pain your brain will resist this motion and tighten up muscles for safety in anticipation of re-injury. Your brain's primary goal is to protect you from more pain. Find your threshold and back off to a comfortable yet effective range of motion. The most productive stretches are based on you as an individual. There really is no cookie cutter stretch program for pain and overuse syndromes. The best advice is to follow your instincts. If it feels good, do it. If it hurts, don't! Your body will tell you what it likes and does not like in regards to movement and stretching. Get into comfortable positions either lying down, sitting, or standing. Even if a stretch is recommended for alleviating a pain you may have don't perform it if it makes you feel worse. Not everyone responds to the same exercises.

Soft tissue treatments such as massage and trigger point (muscle knot) therapy can reduce muscle spasm and relax the tight, restrictive overused muscles. Deep tissue connective tissue massage on weak, injured muscles and/or tendons to break down adhesions (scar tissue) is a more intensive option. Performing basic massage to the tight muscles is the easiest way to address the issue without getting too complex. Getting regular massages is a wonderful feel good way to help prevent overuse injuries.

Once the muscles are warmed up, stretching restricted muscle groups helps increase their length, decreasing impingement of surrounding tissues and misalignment of the joint. Stretching weak, underdeveloped muscles is not recommended as they are already too long and do not need to be lengthened further. Regular non-impact exercise is a critical player in muscle balance. Once the tight muscles have been lengthened from the stretches, it is time to exercise the opposing muscle group, the one that is weak and underdeveloped. Exercising and strengthening the weak underdeveloped muscles forces the opposing muscle group to relax and lengthen further. It also helps to maintain the new length created in those muscles from the previous stretches. Always perform stretches first when addressing chronic muscle imbalances and then immediately follow with exercises to lock in control.

Epsom salt baths can be very helpful in reducing muscle spasm, removing toxins from the body and increasing blood circulation. Overall nutrient flow to affected area helps to increase the speed of recovery. Not to mention the mental peace and well-being that comes from relaxing in a warm bath without interruptions from the chaos of daily life. Take time to remain in silence and see the positive benefits less 'noise' has on your recovery.

Listen to your body. Remember that more is not better, better is better. You are empowered to take back control of how your body looks, feels, and functions in life. Too much of anything is not good. Pain is not something your body uses to build character and toughness. Pain is the communication system of your body telling you something is wrong and needs attention. Don't ignore it! For if you do, pain will come knocking on your door again and it will be with a BIG BANG!

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