

# Massage Therapy Makes the Difference in Sports and Exercise Benefits

**By Benny Vaughn**

Summer months bring out the athlete in many people. There is something about sunny days, warm temperatures and the outdoor beauty of Summer months that motivates sedentary lifestyles into active lifestyles and encourages increased levels of activity for the already active person. Along with this increased activity level is an increase in muscle-tendon complaints. From muscle soreness to sprains and strains, a wide variety of muscle-tendon conditions will inspire people to seek relief and resolution through massage therapy.

Normalizing muscle tissue, that is reducing or eliminating those known factors that interfere with optimal muscle function such as soreness, pain, spasm, and myofascial adhesions, can make a significant contribution in how a person will respond to stretching exercises as well as strength and conditioning exercises. Massage therapy plays a vital role in the recovery and prevention of these muscle-tendon complaints.

Good massage therapy results, that are lasting, for specific myofascial conditions often require more than good "hands-on" care but should include "home care" recommendations and suggestions that address the causative factors of the muscle-tendon complaint that the client is suffering with. These suggestions fall into several categories. They are strength, flexibility, conditioning and neuromuscular integration, i.e. proper technique and skill. Good competent coaching from a professional to improve a clients skill in an athletic activity can go a long way in resolving many chronic conditions such as tendonitis, delayed onset muscle soreness, myofascial adhesions, muscle strains, and joint sprains. All these conditions can be managed with massage therapy and a comprehensive program of home health care suggestions.

Two common activity related ailments that massage therapists are likely to encounter with their clients during Summer months are, "tennis elbow" and "shin splints." The key to providing the best solutions for resolving these ailments with your clients is to address the following four areas that make for a sound rehabilitation and prehabilitation program. First, normalize the muscle-tendon soft-tissue with massage. Second, improve flexibility of the target muscle-tendon units involved. Third, reintroduce movement patterns that have been dormant or restricted due to pain. Fourth, implement strengthening and conditioning activities utilizing resistance training.

By incorporating each of these steps in resolving soft-tissue complaints, massage therapy will have a greater impact in resolving these chronic cases of activity related soft-tissue complaints. When pain is the primary complaint, be reminded that there are many factors and pathologies that can contribute to the cause of pain. With this point in mind, completing a comprehensive history including orthopedic assessment to confirm or expand on your history findings is a critical part of massage therapy care.

It is critical because the sign of a professional is to know "when not to", i.e. when is it time to refer and suggest additional healthcare intervention that could be of benefit in resolving the reported muscle-tendon condition. Massage therapy techniques, along with liberal doses of anatomy, kinesiology, and assessment skills will enhance the tremendous results that can be achieved with massage.

### **"TENNIS ELBOW"**

Tennis elbow is a "catch-all" terms used to describe elbow pain. There are many pathological conditions that can cause elbow pain. When elbow pain falls into one of the categories of soft-tissue dysfunction, i.e. strains, sprains, tendonitis, and adhesions-then massage therapy can help. Massage therapy is extremely useful in enhancing the overall rehabilitation protocol while contributing to prevention and prehabilitation.

"Tennis elbow" is a tendonitis condition that manifests pain at the lateral epicondyle of the humerus. This condition is lateral epicondylitis but is most often referred to as "tennis elbow." Playing the game of tennis is not a prerequisite to suffer from "tennis elbow." This condition involves irritation and microtearing of the tendon fibers of the common extensor muscle group at their attachments at the lateral epicondyle of the humerus. "Tennis Elbow" most often occurs because of repeated and excessive eccentric stress loading on the extensor muscle-tendons of the wrist.

Massage to the forearms should include good compressive, draining effleurage to reduce any levels of sub clinical edema often associated with overworked and fatigued forearm muscles. Massage applications that include Muscle Energy Techniques, Active Assisted Engagement of the muscle while pressure is applied and Compression Broadening can produce outcomes of significant results. In the early stages of pain and discomfort around the lateral aspect of the elbow, the use of cold applications in the form of ice massage or ice bag application will prove helpful in managing pain associated with low-grade inflammation and irritation.

### **"SHIN SPLINTS"**

With the advent of warm outdoor weather, many will find themselves taking long walks, hiking, jogging and other aerobic activities that require using the legs as the primary point of locomotion. "Shin Splints" is a wastebasket term often used to describe any pain in the shin area associated with activities such as running, jogging, jumping, and walking.

There are two other conditions associated with leg activity that may cause shin pain that warrants mention due to their medical nature. One condition is stress fracture, most frequently occurring in the tibia, while the other is exercise-induced compartment syndrome of the lower leg - a condition where swelling, induced by exercise, occurs in the muscles of the fascial compartments of the lower leg.

This low-level swelling can compromise neurovascular structures causing pain, parathesia, and in worse cases, motor function of lower leg muscles, i.e. the peroneals, the anterior tibialis muscle and the posterior tibialis muscle. Compartment syndrome requires medical evaluation to insure that all pathology possibilities have been thoroughly examined.

"Shin splints" is technically known as Medial Tibial Stress Syndrome or MTSS. Medial Tibial Stress Syndrome, is an example of a strain of the posterior tibialis muscle associated with overuse and lack of adequate strength and conditioning to carry the imposed workloads during activity. Be reminded that the action of the posterior tibialis muscle includes both plantar flexion of the ankle and inversion of the ankle.

These two key motions occur during locomotion-they occur at various intensities during walking and running. The posterior tibialis muscle is often overused in initial physical fitness activities such as a beginner running for fitness program or aerobic dance classes. Overall, the activities can result in an overused posterior tibialis muscle. Eventually, through repeated use, along with lack of adequate flexibility, lack of adequate strength and conditioning for the required workload of activities such as running or jumping - a person may develop a "shin splint" syndrome.

Because most physical fitness activities involve the legs in some form or fashion it is easy to see why "shin splints" are common, especially in Summer months. What the massage therapist is faced with in Medial Tibial Stress Syndrome or "shin splints," is a muscle strain to the posterior tibialis or the anterior tibialis muscle, accompanied with associated tendonitis in many cases. Because of the attachment of the posterior tibialis muscle and the anterior tibialis muscle, the importance of massaging the muscles of the plantar aspect of the foot cannot be underestimated.

These muscles all work together biomechanically to insure that the translation of forces to the muscles of the lower leg is both balanced and efficient. Anytime any of the muscles of the lower leg involved in the biomechanics of the foot and ankle are out of balance, one or more of the muscles involved may become overused. Meanwhile other muscles attempt to compensate, causing them to suffer repetitive stress that eventually creates a tendonitis condition that can lead to a cumulative point where a muscle strain may be sustained. This interruption of the kinetic chain can produce "trigger points" in muscles of the lower leg as well as the foot and ankle where these muscles attach.

Prevention through preparation is the key to addressing potential activities that can put a person at risk for developing "shin splints" or MTSS. Strength training the muscles of the lower leg are key to this prevention. Resistance exercises utilizing rubber tubing or bands can be extremely useful in this end. By performing resistance exercises that consist of ankle dorsiflexion, plantar flexion, eversion, and inversion the client can attain a higher margin of prevention from debilitating "shin splints."

Massage therapy techniques that include "deep pressure" stripping, compression broadening to the calf muscles, and "active assisted techniques" including generous applications of compressive effleurage, can make a difference in lasting results and relief from "shin splints." Prevention through strength and flexibility coupled with a progressive increase in activity will make a difference. And remember that the normalization of muscle tissue through massage therapy will allow the strength training and the stretching to be much more effective in prevention of "shin splints."

## **MUSCLE "PULLS"**

When people begin to enjoy the Summer months with added physical activities, the chances of "pulling" a muscle is improved especially if the Winter months were sedentary. Muscle "pulls" technically are strains. Muscle strains can occur from overuse or overstress. The overuse of a muscle is what the massage therapist will often see at the beginning of the summer months when people tend towards doing too much activity, too fast, too soon. That is to say that the muscles have not and are not prepared for the activity workloads being required. Again, the progressive introduction of exercise and physical activity allows a better chance for preventing a muscle strain.

Often, before a muscle is actually strained or "pulled", there are many warning signs. Signs such as chronic muscle tightness, areas of specific soreness (trigger points), limited range of flexibility, and over-training, i.e. high levels of fatigue increase susceptibility to muscle injury. This is why stress-reduction massage for recovery can improve on therapeutic outcomes.

When a muscle has been strained, the application of cold is key to rapid recovery. After a suspected muscle strain has occurred the prompt introduction of cold packs can make a significant difference in the degree of injury - ice in plastic bags placed on the injured site works well. Massage techniques including focus on lymph drainage techniques, will have an impact on fast and substantial recovery. Muscle strains often occur when muscle strength imbalances, relative to the physical activities, exist between the prime mover and the antagonist muscle. Consequently, it is important, for best results that massage therapy not only focus at the site of the actual injury but with the antagonistic muscles involved as well. You will discover in most muscle strain cases that the antagonistic muscles are in worse condition than the prime mover.

Trigger points will often be numerous in these decelerator muscles and thus deserve equal therapeutic intervention with "hands-on" techniques. These muscles are good candidates for Muscle Energy Techniques or Facilitated Stretching in conjunction with Compressive Effleurage and Petrissage massage techniques to enhance a therapeutic relaxation response. This response allows for enhanced local circulation for tissue nourishing effects.

Hydration should be emphasized as well to solidify the therapeutic results. With over 70% of muscle tissue consisting of H<sub>2</sub>O the importance of water for good muscle function cannot be underestimated. Drink plenty of water, so that urine color is near clear or clear on a regular basis. If you hydrate only when you feel thirsty you are already behind.

## **CONCLUSION**

Massage therapy when incorporated with fundamentals of stretching, resistance training, and progressive introduction of new activities can contribute to a fun and safe Summer season. Massage Therapists are reminded that good massage care goes beyond the "hands-on" session, but extends with educating your client on important points such as hydration, exercise, stretching, and the benefits of regularly scheduled massage therapy sessions. Fitness should be fun and injury free and contribute to enhanced quality of life. Enjoy the Summer.

**About The Author**

Benny Vaughn has been a Licensed Massage Therapist for more than 25 years. He specializes in orthopedic and clinical sports massage. Benny has been a massage therapy educator for over two decades. He is a Certified Athletic Trainer (CAT) and a Certified Strength and Conditioning Specialist (CSCS). Benny is a graduate of the University of Florida with a degree in Health Education.

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