

# **The Role of Massage in the Management of the Performance Horse**

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## Table of Contents

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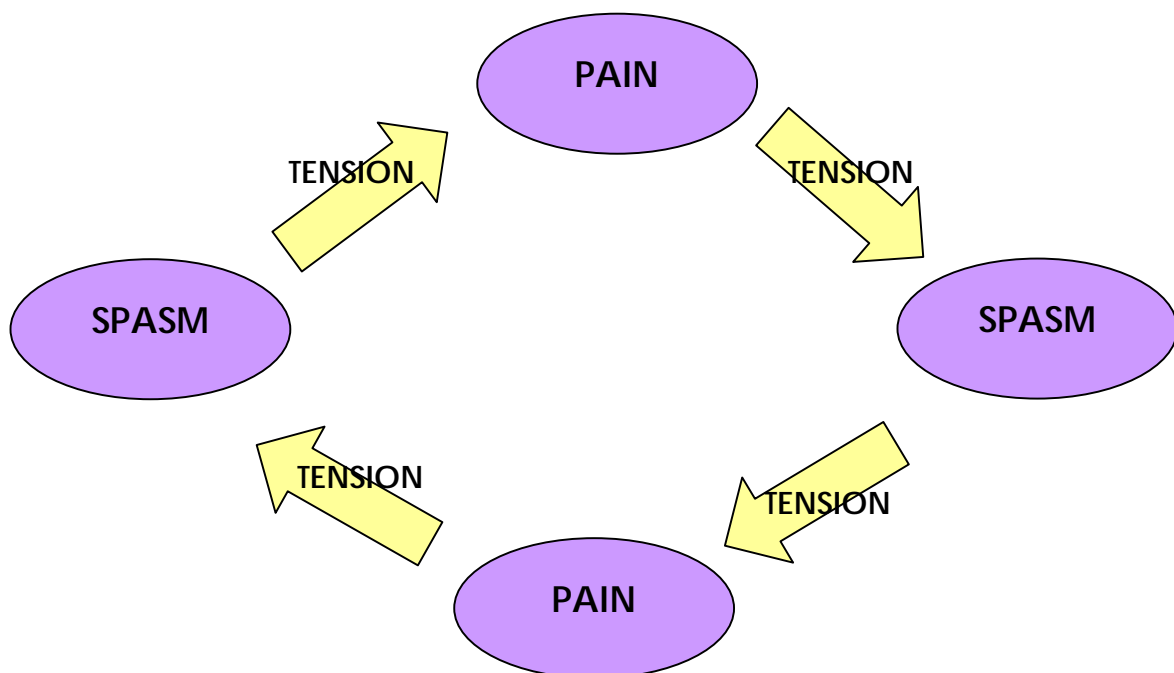
Introduction.....	3
Why does a performance horse have pain and tension?.....	3
Competition induced soreness.....	4
How can massage assist the performance horse? .....	4
Types of massage strokes and their affect on the performance horse .....	5
Conclusion.....	6
Reference List .....	8

## Introduction

The performance horse is an equine athlete used for competition such as, dressage, endurance, polo, showjumping, campdrafting and eventing. As an athlete, the performance horse is subject to pain, tension and fatigue associated with muscles, joints, ligaments and tendons. This pain often starts from the moment that training for competition commences and in some instances as early as the breaking in process. Performance horses also experience problems in specific areas of their body due to the type of work they are performing. In such circumstances, the horse's inability to verbalise their pain, tension or fatigue calls for the observation of a trained professional to determine the appropriate therapy to correct the problem. Massage is one therapy that can provide many benefits to the performance horse through both mechanical and pure nervous reflex effects.

## Why does a performance horse have pain and tension?

As we strive to make the performance horse fit and develop muscles, soreness is almost inevitable. Overexertion by pushing the horse beyond its fitness level will cause muscle soreness and the horse may become stiff and hesitant as a result. During the normal course of exercise, muscles tear and fatigue, glycogen is broken down for energy and lactic acid can accumulate in muscles. (Bromiley 1994) When an injury occurs, the body responds with the Pain/Spasm/Pain cycle (Scott 1996)



When pain occurs, blood flow and oxygen are reduced causing tension, the affected area will “splint” or try to protect itself by compensating in contraction (spasm), this results in additional pain which again results in spasm and so it continues. The Pain/Spasm/Pain cycle must be broken to start the healing process and one of the most effective ways to do this is with massage therapy. (Scott 1996)

### **Competition induced soreness**

Another cause of biomechanical problems is specialisation in a particular discipline which causes the same muscles and joints to be used repeatedly (Denoix & Pailloux 1996) For example, conflicts in engagement and collection can become apparent in dressage through overuse of certain muscle in training, such as . Jumpers may suffer problems in the flexor and extensor muscles, tendons and ligaments in the hindquarters from takeoff and conversely, landing strains the flexor muscles, tendons and ligaments in the foreleg, chest back and shoulder. (Hourdebaigt 1997) In addition, the cartilages and spinous processes of showjumpers and eventers are subject to repeated shock and minor traumas as they land after a jump. (Denoix & Pailloux 1996) Polo horses may suffer from problems in the muscles and ligaments of the legs which are under constant stress. Tension also builds up in the hindquarters, lumbar and neck regions ultimately forming stress points. (Hourdebaigt 1997)

### **How can massage assist the performance horse?**

These min-traumas often have a cumulative effect (Denoix & Pailloux 1996) Flexibility must be restored to the soft tissue which can be accomplished by massage and stretching (Scott 1996). Whilst massage is not a substitute for proper veterinarian treatment or diagnosis, massage therapists play an important role in the equine health or rehabilitation team. Massage is applied by utilising the unique features of the skin, in particular the sensory receptors that allow touch to affect the muscles and other underlying tissues.

In addition to being used as a therapy to relieve pain, tension or fatigue, massage can also be used as a preventative measure in the performance horse. Massage can also be used as part of a rehabilitation program to bring a horse back from injury. Lactic acids and other wastes can be removed from the body by massage and it can help tissues compensate for damaged muscles. Massage therapy is also very effective on fascia which endures significant stress in the performance horse. (Scott 1996) According to Scott (1996), the benefits of massage for a performance horse include:-

- Injury prevention
- Releasing endorphins
- Reducing muscle spasm
- Relieving muscle soreness
- Enhancing proprioception
- Improving athletic performance
- Helping to restore a full range of movement

### **Types of massage strokes and their affect on the performance horse**

Stroking is used to produce pure nervous reflex. Applied slowly is gives a very soothing, relaxing sensation producing an almost sedative effect. Applied quickly, stoking will have a stimulating, almost exciting effect on the horse's nervous system. (Hourdebaigt 1997) Stroking is therefore of benefit either before or after a competition to either stimulate or relax.

Effleurage has mechanical drainage effects on the body fluids such as blood and lymph. (Hourdebaigt 1997) Once again this stroke can be stimulating or relaxing dependent on the pressure and rhythm used. However, it is primarily used to assist drainage and is particularly useful to assist with the removal of lactic acid and other accumulated wastes from the body after competition.

Compression is very effective before and after competition. According to Scott (1996), deep massage work is most beneficial when administered 48 hours or so prior to competition with compression maintaining the effects until the actual event. Post event compression is one of the most effective methods to rid the body of lactic acid and other accumulated wastes. Compression achieves this effect by temporarily draining blood from the area, when the compression is released, nutrient rich blood floods the area brining oxygen and flushing out toxins and wastes. Valves in the veins prevent the return of the stale blood. Other types of petrissage such as kneading, wringing and muscle squeezing can be used with compressions to work on muscle tension, muscle knots, congestion and small spasms. (Hourdebaigt 1997)

Stress or trigger points result in reduced muscle action and are essentially microspasms involving a few fibres out of a whole bundles. The difference between stress and trigger point is their location with trigger points occurring in the belly of the muscle and stress point at the attachments. They can however, turn into fully blown spasms and may be inflamed or tendon. They a generally caused by heavy training or repetitive actions, weight overload or strenuous effort. They can also develop as a result of a fall, bump, kick or even overstretching in a slip. As an injured horse recovers, stress or trigger points may form in the compensatory muscles.

(Hourdebaigt 1997) To relieve this condition stress point (origin-insertion technique) or trigger point massage, as described by Hourdebaigt (1997) can be applied.

Stress/trigger point or direct pressure massage is one of the deepest massage strokes and is best used for muscle spasms and restoring range of motion in a performance horse. It is used to remove toxic build up in the belly of the muscle. This condition mostly occurs in response to muscle tension (due to overwork, nervous stress or fatigue) and pain can be low to high intensity. When releasing trigger points, it is very important to drain the area thoroughly to prevent bruising or a worsening of the condition (hourdebaigt 1997) This type of massage is best done at least 48 hours prior or immediately after to competition.

The purpose of friction is to increase blood and oxygen, break up adhesion, aid in reducing muscle spasm and broaden the separate the muscle fibres. (Scott 1996). It is useful in the preparation of a performance horse for competition and post competition.

Percussion or tapotement's consist of a series of blows to the body, done rhythmically such as clapping, cupping, hacking and pounding. It produces a mechanical effect and is generally a stimulating stroke. It is effective in warming up muscle groups just prior to exercise. (hourdebaigt 1997) It is also useful post competition to bring blood back into areas such as the saddle area. Percussion applied quickly is very stimulating and applied slowly is very relaxing and can help loosen muscles.

Stretching after competition or when warm pre-competition, can be of great benefit by relaxing the horse; reducing overall muscle tension and stiffness; increasing circulation of both blood and lymph, increasing oxygen and nutrition in the tissues; increasing elasticity of the muscles, tendons and ligaments; increasing flexibility and range of motion of both muscles and joints; improving co-ordination; reducing the risk of muscle strain and ligament sprain; improving the length of stride and improving reflex time response. (hourdebaigt 1997) regular stretching improves the tone and suppleness of muscles, tendons and ligaments. It helps reduce muscle tension and prevents muscle pulls whilst also increasing the strength of the muscle, all of which is very important for the equine athlete.

## **Conclusion**

Optimal performance is essential for the performance horse but like us, equine athletes can develop sore muscles, stiff joints and restricted range of motion. If massage is practiced on a regular basis, it can help alleviate

these symptoms and most importantly injury. Relaxation, maintenance, recuperation, warm-up and cool down massage routines can be used as can different types of massage such as Swedish, Shiatsu, Acupressure, or Bowen Therapy. Stretching is also beneficial to the performance horse.

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