

# **An Introduction to Massage & Stretching**

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## Introduction

Some horses are more naturally gifted than others, but the common denominator between them all, is that the musculoskeletal system equates to over 60% of their body weight. This system is responsible for movement and yet it is the muscles that are often overlooked when it comes to preventative maintenance and injury rehabilitation. "A million dollar horse is not a million dollar horse if it is not moving like one."  
(Meagher 1985)

Unlike us, horses can't verbalise their pain so they rely upon us to notice it. They often indicate muscle pain to us in the following ways:

- Refusing or resisting leads
- Repetitive head tossing or shaking
- Shortened or choppy stride
- Hind leg scuffing
- Stumbling
- Hip and shoulder lameness
- Cold, sore or hollowed back
- Bucking
- Loss of performance ability
- Resistance to training
- Irritable or bad disposition
- Hanging over jumps or on corners in racing
- Girthiness
- Loss of impulsion
- Loss of suppleness
- Reduced range of motion
- Bracing against or avoiding the bit
- Uneven muscular development (may cause saddle to slip to one side)
- Coordination difficulties
- Improper tracking forward, back, or laterally
- Resistance of lateral flexion and/or backing
- Hind limb interference
- Unwilling or unable to walk up or down inclines
- "Off" for no apparent reason

### Excessive Muscle Strain/Overuse

Muscles contract and release, whereas contraction is a generated process, release is not. When muscles tighten and cannot achieve full release, they remain tense and shortened, or contracted. This puts strain on the surrounding areas. For example, tight shoulders can pass their inability to release to the digital flexors and tendons of the fore leg and this puts the structures of the lower limbs at risk. When a muscle is no longer able to do what is being demanded of it, it will tear. It is the challenge of any training programme to find the balance between maximum muscle strengthening and overtraining. (Porter 1998) The following cycle is very common:

Trauma or strain leads to tightening of the muscle which creates a knot, spasm or micro tears in the muscle. This means the muscles are unable to operate through their full range of motion, which leads to further tightening of the muscles and so it goes on. Ultimately this can result in a reduction in performance ability. Even a playful buck and gallop with the herd can strain a muscle but imagine the stress on muscles in a performance horse. Most injuries due to muscular strain are cumulative and it is not necessarily the last thing your horse did that caused the problem. By the time you notice a problem with your horse's movement, it's a sign that muscular dysfunction has already occurred. (Scott 1996)

### Massage

Massage can help locate and relieve knots and other muscular issues that may be limiting your horse's range of motion and therefore performance. Minor injuries & adhesions caused by over exertion & or overuse can be broken down quickly & effectively. It can help prepare the equine athlete for peak performance, drain away fatigue, relieve swelling, reduce muscle tension, promote flexibility & prevent injury. Sports massage can include pre-event, post-event & maintenance techniques that promote greater athletic endurance & performance, lessening injuries & reducing recovery time.

Massage shortens recovery time by flushing the issues of lactic acid, uric acid & other metabolic wastes. It increases circulation & stretches the ligaments & tendons keeping them supple & pliable. Massage also stimulates the skin & nervous system while soothing the nerve endings, which reduces stress both physically & emotionally. It can help alleviate the stress & tension which builds up in the body's soft tissues during physical activity.

Massage has a direct affect on the majority of biological systems such as muscular, nervous, circulatory, lymphatic, respiratory, skeletal and endocrine. Due to the interconnectedness of all biological systems it also has an indirect effect on systems such as the digestive, reproductive and urinary systems.

Incorporating stretching into your training program can further increase the athletic ability of your horse.

### **Benefits of massage**

Human athletes have been using massage and stretching for years as part of their training regime for good reason. The main benefits of massage are outlined below.

#### Improvement of general circulation

The pressure of massage movements has an affect on the circulation of blood throughout the body. Massage effect the circulatory system by improving circulation via mechanically assisting the venous flow of blood back to the heart, therefore increasing the effectiveness of expelling waste products from the body. It also dilates blood vessels to help the work more efficiently. The enhanced blood flow improves the delivery of fresh oxygen and nutrients to the tissues via the arterial system and enhances the removal of waste products, toxins and carbon dioxide via the venous system. As an example, compressions temporarily take the blood out of an area, when the compression is released, the fresh blood rushes back into the area, nourishing and also flushing out toxins.

#### Enhancing lymphatic flow

The lymphatic system assists with the filtration of toxins. It has no "pump" associated with it, like the heart, with which to move fluids and the vessels generally run along side the veins. By massaging in the direction of lymph nodes, the fluid is mechanically moved along the vessel and this improves the effectiveness of the system. Massage affects the lymphatic system by increasing drainage therefore reducing excess fluid in the tissue. It assists with the removal of waste from the system using the lymphatic system (combined with the circulatory system) as transporters. Infection is a contraindication of massage because it assists the flow of lymph and can therefore spread the infection around the body via the lymphatic system.

#### Enhanced flow of body fluids

The mechanical process of massage stretches vascular tissue and helps dislodge or breakdown a fibrotic area. This allows more effective flow of fluids between capillaries and arteries.

### Softening of scar tissue

Friction massage in the post acute and chronic stages of the healing process can prevent the build up of excess scar tissue by keeping the area free and mobile. It can also prevent the damaged tissue from adhering to the other structure nearby.

When scar tissue has already formed, friction can be used to break down the scar and increase or reintroduce blood supply therefore enhancing the body's own activity of minimisation of scar tissue and restrictions.

### Break down of adhesions

Adhesion and fibrous tissue form around an area of scarring reducing the blood supply and therefore reducing the ability of the body to heal. By using friction massage, adhesions are broken down allowing the tissue fibres to separate, increasing blood supply and enhancing function

### Stretching and softening muscles and skin tissue

Massage provides increased stretching to skin and tissue therefore encouraging a great range of movement of muscles.

### Enhancement of the nervous system

Massage stimulates the nerve receptors situated in the skins which results in a reflex action that relaxes tissue and reduces the sensation of pain. The hands of the masseur stimulate sensory receptors situated in the skin and can either invigorate or sooth nerve depending on the techniques used, for example stroking vs cupping. Massage can also stimulate the parasympathetic nervous system helping relaxation and the reduction of stress. Hourdebaight (1997) states that horses suffer from stress, which originates in the brain but shows in the body as tension. Releasing tension enhances the function of the nervous system and as such also has an effect on blood pressure, digestion and attitude.

### Enhanced endocrine function

The body releases histamines as a result of massage, this results in the relaxation of tissue and increased blood supply. The benefit of this chemical enhancement is that the positive effects of the massage will be felt in areas away from the area actually been worked on.

### Reduction in anxiety and nervous tension

A massage can help a horse release mental tension and stress which can be causing pain & tension in the body

## **The Contraindications of Massage**

Massage has numerous benefits as can be seen the previous text. However, before a massage therapist is called to participate in a rehabilitation program or before you commence any sort of massaging, it is important to understand the contraindications of massage. Contraindications are as the names suggests, times when massage is not recommended. This is due to the risk of increase the severity of symptoms or creating further issues. (Scully 2002)

According to Scully (2002) there are 14 main contraindications to massaging as follows:

### Acute inflammation

Inflammation is the body's reaction to injury and is evident by heat, swelling, pain and redness. Massaging an area that is inflamed can result in increased inflammation of the injury site, thereby potentially causing further damage and slowing down the healing process.

### Acute Injury

Massaging the site of an acute injury can cause increased severity of the issue. Acute injuries should be treated with appropriate first aid and veterinarian care if necessary.

### Infection

Massage increases the flow of lymph and blood around the body and therefore infection can be rapidly spread around the body potentially causing a systemic infection

### Open wounds

Massage increases circulation and is therefore not recommended in the vicinity of open wounds or on areas of the body that are bleeding i.e. the acute stages of a haematoma and bruising.

### Severe unexplained pain

Severe pain could indicate a critical problem such as colic or a fracture which could potentially be worsened by massage. Veterinarian opinion should be sought as to the reason for the pain

### Fractured Bones

Massaging of a fractured bone could cause severe pain and increase the risk of further damage by realigning the bone still further.

### Colic

Relaxation massage can slow down the digestive processes including bowel motility thereby exacerbating colic. A vet should be called immediately. There are some acupressure points which are useful whilst waiting for the vet to arrive.

### Pyrexia/high temperature

A higher than normal temperature is an indicator of inflammation, pain, infection or other biological disturbance. Veterinarian assistance should be sought.

### Pregnancy 1st Trimester

Although there is no conclusive evidence to suggest massage can harm pregnant mares, massage therapists have taken the lead from human massage therapists and do not take the risk in the early sensitive stages of pregnancy. In the later stages massaging over the abdomen should be restricted to light strokes only.

### Immediately following a meal

As outlined above under colic, relaxation massage can cause the digestive function including bowel movements to slow. This in turn can lead to colic. Do not massage within 1 hour of a meal.

### Skin Conditions

Skin conditions may include fungal or bacterial diseases. Massage can increase the risk of transferring skin conditions to other areas of the body, they may be transferred to human or it may be very uncomfortable for the horse

### Acute Arthritis

Inflammation is a symptom of acute arthritis and massage is therefore not recommended. However in the chronic stages massage can help relieve tension in the muscles which are supporting the affected joints.

### Cancer

Cancer is a contraindication to massage due to the risk of spreading the disease to healthy parts of the body through the circulatory or lymphatic systems.

### Heart Condition

Seek veterinarian advice before massaging a horse with a heart condition.

### **Why horses are affected by sports injury?**

Horses are affected by sports related injuries as a result of human "endeavour" to go faster, jump higher and the lack of knowledge to properly prepare a horse and therefore prevent unnecessary injury. The most common causes of sports related injuries include

- General overtraining
- Specific overtraining
- Under training in relation to the activity been asked to perform
- Inadequate warmup or cool-down
- Age – young horses are more likely to get bony injuries, older horses recover more slowly
- Poor hoof condition
- Rider error or imbalance

### **Overuse injuries**

As an athlete, the sports horse is subject to pain, tension and fatigue associated with muscles, joints, ligaments and tendons, which often start from the moment training for competition commences. Overuse injuries are common generally due to the human quest to jump higher, run faster combined with a lack of knowledge or understanding of suitable exercise programs. The major factors contributing to over use injuries are

#### Hooves

- Unbalanced
- Contracted
- Poor hydration
- Poor angulation
- Low heel, long toes

#### Repetitive riding

A common cause of overuse is a lack of variety in exercise programs. This can cause the same muscles and joints to be used repeatedly. Continuous use of the same muscles in competition e.g. jumpers may suffer problems in the flexor, extensor tendons and ligaments in the hindquarter from take-off. Another factor in straining of muscles and other connective tissues is frequent work in deep sand arenas.

#### Unbalanced riding

If the rider is unbalanced, perhaps even due to their own body issues, the horse must constantly rebalance itself causing the over use of muscles.

### Racing or galloping in one direction

In the racing industry there is little opportunity for horses to be worked in both directions from the walkers to trackwork and on to the racing itself, it is all one direction. In NSW, many racehorses have issues in their right hind and left fore.

### Conformation and use

Asking a horse to do an activity for which they are unsuited can also cause injury. For example, an ideal jumper would have long slim legs, a light streamlined body, powerful hindquarters a light forehead and well laid back shoulder. Alternatively, a horse that was heavy in the forehead with a large head would tend to take off and descend steeply and land heavily. A long backed horse may develop more stress points than a short backed one. (Tellington Jones 1998)

### Overexertion

Overexertion by pushing a horse beyond its fitness level will also cause muscle soreness. Unlike human athletes, horses cannot stop when they are tired. They rely completely on their rider to notice the signs of exhaustion and act accordingly. In the heat of competition, the horse is often pushed beyond its ability to cope. You know yourself if you are tired that you cannot use your body as well as if you are fit and fresh.

During exercise muscles tear and fatigue, glycogen is broken down for energy and lactic acid can accumulate in muscles.

### Injury to another area of the body

Competing on a horse with an injury can cause the horse to compensate and may cause stress points in the compensatory area that can lead to a secondary injury.

### Environment

- Uneven ground
- Overly soft or hard ground
- A poorly designed course
- Incorrect camber on a racetrack

### **Massage & The Management of Injuries**

This topic will be covered in more detail by the other components of this subject but as a guideline

All injuries go through acute, post-acute, sub-acute and chronic phases. Injuries are managed differently depending which phase they are in. It is important you understand which phase the injury is in before you decide

to massage as this may not be the most suitable therapy at that particular time. Scully (2002) recommends the following:-

#### Massage during acute phase

The acute phase in an injury is normally considered to be the first 24 hours after an injury occurs. In the acute phase, First Aid (R.I.C.(E)) treatment is administered along with other treatments as recommended by your veterinarian or which you will have covered previously.

An acute injury is a contraindication to massage. To demonstrate, consider an injury where a haematoma has formed. Massaging the site of this injury will increase blood flow and exacerbate the haematoma. However, it may be useful, in conjunction with the first aid process mentioned above, to apply some very light effleurage or lymphatic drainage to aid the lymphatic system to remove waste and excess fluid. The effleurage will also aid in delivering healing agents to the injured area through the circulatory system

#### Massage during the sub-acute phase

The sub-acute phase is generally thought to be between 48-72 hours from the time of injury.

During the sub-acute phase, it is possible to introduce massage over the site of the injury. This will assist in reducing swelling, stimulating circulation, prevent excessive scar tissue formation and break down any early adhesions. This can be done with gentle effleurage and stroking.

#### Massage during the Chronic Phase

Is generally thought to be beyond 72 hours. Massage in this phase is an excellent therapy to consider when rehabilitating a horse. The only consideration is to be wary of massaging away compensatory muscle tightness which may be acting as a splint around the injury itself, or assisting the animal to distribute weight in a less painful manner.

#### Tendon injuries

Tendon strains are fairly common in sports horses and are caused by events such as excessive exercise when the horse is not fit, trauma, fatigue, uneven or overly hard or overly soft ground, slipping, poor conformation and the incorrect application of bandages.

There are three levels of strains from Level 1 (partial rupture) to Level 3 (total rupture). The level 1 strains may be so slight they go unnoticed as there may be no loss of function and only a small amount of heat and swelling. A level 2 strain will definitely show swelling and pain but there

may still be no overt sign of lameness. For a level 3 strain damage will be fair greater and there will be obvious lameness. There is likely to be a full loss of function as well as heat, pain and swelling present.

#### *Treatment of tendon strains*

Once again, the first aid and other treatments will be covered by other components of this topic but generally for all three levels, adequate first aid is essential in the acute phase i.e. Rest, Ice, Compression (R.I.C.(E)) ...the E by the way stands for elevation....rarely practical with horses. For a Level 3 strain a Veterinarian should be called.

#### *Massage of tendon injuries*

Massage is a suitable therapy from the post-acute phases onwards. Massaging the tendons with gentle effleurages, stroking and light frictions is useful.

Massage is of benefit in treating tendon injuries in the post and subacute stages to assist with the removal of toxins and to assist in reducing swelling. It can also stimulate circulation, prevent scar tissue formation and breakdown any early adhesions. This application of strokes such as light effleurage will enhance drainage away from the injury thereby assisting in the removal of wastes and delivery of healing agents to the area. From the chronic phase onwards frictions and deeper strokes can further aid the healing process.

### **Rehabilitation Massage**

Rehabilitation massage focuses on the restoration of tissue function following injury. Even with preventive maintenance, muscles cramp, tear, bruise, and ache. Sports massage can speed healing and reduce discomfort during the rehabilitation process. Soft tissue techniques employed by sports massage therapists are effective in the management of both acute and chronic injuries. For example, adding lymphatic massage to the "standard care" procedure in the acute stage of injury will improve control of secondary, hypoxic injury and enhance oedemous fluid removal throughout the healing cycle. Trigger point techniques reduce the spasms and pain that occur both in the injured and "compensation" muscles. Cross-fibre friction techniques applied during the subacute and maturation phases of healing improve the formation of strong and flexible repair tissue, which is vital in maintaining full pain-free range of motion during rehabilitation. In all cases, such massage techniques are employed in collaboration with other appropriate medical care such as veterinarian treatments, acupuncture or acupressure, chiropractic, reiki, laser therapy etc. For example, encouraging circulation around a bruise, but not directly on it, through the use of compression,

cross-fibre techniques or even long, deep strokes is only used after appropriate veterinarian referral and diagnostics indicate that there are no clots formed in the area which may embolise.

### The Pain/Spasm/Pain Cycle

When pain and injury occur, the body responds with the Pain/Spasm/Pain cycle. Blood flow and oxygen are reduced causing tension, the affected area will "splint" or try to protect itself by contracting (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)

### **Massage techniques and their application**

There are a number of different massage techniques, each with its place in rehabilitation. A basic description of the main techniques is outlined below:-

Stroking is a basic stroke and is the first and last stroke used in a massage. It can be superficial or deep and moulds to the contours of the body using the flat of the whole hand. The masseur utilises continuous movements throughout the length of the area being treated. It is used to communicate, assess underlying tissue, prepare an area for massage and maintain contact. The effect is calming and soothing.

Effleurage (a long or broad, smooth continuous stroke) generally applied with firm pressure. It has a smooth movement and sometimes includes a circular or cross fibre component where pressure is increased at the end of the circle. It is used to warm up muscles, assist in drainage of blood and lymph and the removal of toxins, it is also used to locate problem areas and assess the state and quality of muscle tissue. Drainage is always in the direction of the heart or lymph nodes. The effect of effleurage is stimulating (if strokes are applied fast) and relaxing (if strokes are applied slowly).

Percussion (rhythmical impacts used in rapid succession) to relax chronic muscular tension.

Petrissage covers a number of different techniques including kneading, muscle and skin rolling, wringing, compressions and squeezing. The main purposes of this stroke is to open and release muscles and improve circulation, loosen fascia and knotted tissue.

*Kneading* is where the muscles are “picked up” and compressed within the whole hand in rhythmic, circular motion (small half-circles overlapping one another, pushing outward). Kneading can be used on large muscles with hands or fists or small areas with just thumbs. to boost circulation and improve oxygenation of muscle bundles and fibres.

*Muscle and skin rolling* are generally applied to the neck and abdomen after deep treatment to increase circulation or induce relaxation.

*Wringing* is where the hands are used simultaneously and move in opposite directions. It is usually applied to the back, shoulder and hindquarters. It increases circulation and is useful to fight inflammation over the muscles of the back. It is therefore a good stroke to apply before and particularly after saddling

*Compression* is the rhythmic pumping action employing the palm and heel of hand administered in an inward and upward manner to alleviate muscle spasms. It is performed by applying pressure to the muscular tissue against a bony prominence. This causes the blood to be removed from the area temporarily and when the pressure is released fresh blood floods back into the area bringing nutrients and assisting to flush out toxins.

*Muscle squeezing* is mostly used to decongest, relax muscle tension and increase circulation. It is used mostly on the neck and withers but can also be used on the tail and legs.

Frictions are a deeper massage stroke that concentrates on one small area at a time. It is used to break down adhesions and scar tissue over muscular fibres, tendons, ligaments, joint capsules and bones. Frictions are small, deep, circular movement. You can use your thumbs, elbows or the heel of your hand,

Tapotement's consist of a series of soft blows to the body applied rhythmically. Tapotement is also called percussion and includes hacking, cupping, pounding and plucking. The effect is to warm up muscles, increase circulation and to soothe or invigorate (dependent on speed). Percussion brings a lot of blood into an area and should be used with effleurage to remove fluids and prevent engorgement of muscles.

Cupping is a terrific way to bring blood back into the under saddle area after being ridden.

### Neuromuscular Technique

In neuromuscular technique deep pressure is applied to the centre of the

area of tension or knot. This pressure is held until the masseur feels the tension “dissolve” under their fingers. Neuromuscular technique affects the sensory nerve cells in a muscle, in particular the Golgi tendon and muscle spindle. As you aware from previous studies, these sensory nerve cells transmit information from the muscle to the CNS regarding the workload, length and change on length or position of a muscle. By holding deep pressure in one location for a lengthy period this causes the muscle to relax utilising both the stretch and tendon reflex.

### Soft Tissue Release

Soft Tissue release (STR) is used to treat severe tension in connective tissues such as muscle, ligaments and tendons. It is effective in removing muscular tension and treating scar tissue. It is a combination of other massage techniques such as frictions and stretching and is applied using fingers, thumbs, fists and elbows. STR utilises frictions, however, it differs from other methods in that the masseur’s hand remains relatively stationary, locking the trigger point, knot or area of tension to the underlying structures and the horse’s body part is mobilised. This allows the masseurs hands to move through the area of tension and assist with breaking up adhesions. Stretching in STR is used in a similar manner by locking the area of tension or adhesion into position and stretching the horse’s body part. This means tissues are stretched away from the adhesion or tension. This technique is used to stretch an area close to the site of an injury.

To apply this technique the masseur

1. Locks the tense or adhered area by fixing it against an underlying structure such as bone
2. They then hold deep pressure
3. Stretch the horses body away from pressure

In many cases the handler assist by moving the horse’s body part. STR uses the same points as Neuromuscular Technique (trigger points) but the difference is that the deep pressure is not held as long and it work on the soft tissue through a range of motion. In STR stretching is used to move a muscle under the fingers of the masseur in order to release a small part of a muscle, which has been locked into place.

### Strain Counter Strain Technique

Strain and Counter Strain (SCS) is used to treat areas of tension where compensatory muscles have been involved and the horse has a chronic case of protecting the site. It is particularly good for relieving muscle spasms. This technique is applied by first stretching a muscle to its limit, then passively shortening the muscle and holding it for 90 seconds. This

“tricks” the muscle spindle into relaxing and releasing the spasm. Then the muscle is stretched past its previous limit and is held until the muscle tissues and nerves accustom themselves to the new muscle length. In SCS, stretching is used as a major component of the treatment utilising the physiology of the muscle to affect the release of the muscle spasm.

### **The Benefits of Stretching**

One of the ways to maintain muscular health and therefore prevent strain injuries is by stretching. Human athletes have long understood the benefits of stretching, especially related to improving athletic ability and performance. Likewise, applied regularly, stretching for horses can enhance physical fitness and the ability to learn and perform skilled movements; increase the range of motion, suppleness and circulation; reduce the risk of injury to joints, muscles, and tendons; increase mental and physical relaxation; enhance development of body awareness, co-ordination and reduce muscular soreness and tension. Stretching can be used for pain relief, rehabilitation, injury prevention and improving efficiency of movement. A slow stretch can elongate the muscle it becomes “used” to the new length as the stretch is held. Slow stretching also increases the metabolism in the muscle elevating its oxygen consumption allowing it to relax causing small trigger points or knots to reduce. Supple muscles can be the difference between a hollowed out jump or dressage move and a confident horse traveling in the correct frame. Stretching creates more flexibility in the back and neck allowing the horse to more effectively bascule. For example an improvement in bascule = the ability to jumping higher. In addition supple muscles in the forelimbs and hamstring area minimise the risk on injury and makes your horse more gymnastic. (Blignault 2003)

### **How to Stretch a Horse**

Stretching can be done on the ground (passive stretching) and in the saddle (active stretching). Including passive stretching in your horses cool down routine is a fantastic way to keep your horse supple and maintain their muscular health. **It is absolutely vital that the horse is warm before you attempt to stretch it.**

To increase flexibility in the muscles holding the stretch for a long period of time is important, usually 15 – 30 seconds is sufficient. This activates the lengthen reaction described previously. As a bonus, it is easier to stretch a muscle that is relaxed than to stretch a muscle that is contracting. Use the basic stretches demonstrated as a starting point.

Ridden exercises that assist in stretching the horse can be included as part of your normal training routine or introduced into the rehabilitation

program at an appropriate time. The following Active Stretches have been taken from Karin Blignault's highly recommended book Stretch Exercises for your Horse. As an example, they have been chosen to stretch particular muscle groups most heavily utilised in showjumping. Cross training is by far the most effective way of keeping your horse healthy in both body and mind. For example, it is important to balance circle work, with flat straight work, you might jumping one day and a ride out the next. Knowing when to stop is the key to preventing injury. Push too hard and you will cause an injury. A human athlete can feel the strain and stop but a horse can be pushed beyond its ability to cope. As with all exercises, vary your routine and do not do these exercises to the exclusion of all others, they are intended as an additional workout for your horse.

1. Ride low and round in trot and canter. Ride transitions walk-trot-canter and canter-trot-walk maintaining this frame. **This should not be done for long periods of time. Let the horse dictate how long is appropriate to avoid over tiring their muscles. Over tired muscles can tear.**
2. Walk and trot over 6-8 poles and small caveletti, encouraging the horse to stretch his head and neck down. The first and last poles should be placed at slightly shorter distances than the rest. As a variation increase the height of the poles slowly to stretch the triceps muscles. You can also slowly increase the distance between the poles to provide an additional stretch.
3. Perform rein-back exercises starting with a few steps and slowly building up to 6-8 steps. **Do not repeat this exercise too many times as it may cause muscle strain.**
4. Working in all gaits up and down hills has a good suppling effect in the loins. Canter uphill gives the most stretching. Be careful once again not to overdo this exercise.
5. Ride serpentines at the trot with strong half halts before the change of bend and a deep change of bend with backtracking in between the loops to emphasise the stretch. Try to put as many loops as you can in the serpentine.
6. Ride in spirals. Start with a 20m circle then gradually reduce to 6m then push horse out again to 20m.
7. Ride half passes, shoulder in, shoulder out and also counter canter. Any leg yielding exercises are useful. Try these in as many gaits as you can.
8. When riding out, ride in a lengthened frame for part of the ride.

## Be aware

- Your horse must be warm
- Stretch and release muscles slowly,
- Never drop the horse's limb, place it back in position
- Check your own body position.
- Stretching should be specific to the individual needs of the horse, be aware of you horse's limitations and do not push it beyond this point.
- Always stretch within the normal range of movement for the individual horse.
- Start small and build up gradually
- Over stretching can cause injury to your horse, listen if they show signs of discomfort and stop what you are doing.
- Passive stretching can be dangerous to you and can cause injury to your horse if done incorrectly.
- Do not attempt rehabilitative stretching unless you are suitably qualified
- It is advisable to seek your veterinarian's advice prior to commencing any stretching program.

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