

# TALKING DRESSAGE

ISSUE 8



## From the editor...

It's the time of year to prepare for local and state dressage competitions, the Nationals in November, the Dressage Festival in December and the CDI in March. There are many young horses coming through the levels and being trained for their first major outings.

In this issue, we highlight the concept of 'Suppleness' - what it means, what skills your horse has to develop and how you can train and exercise your horse to achieve this important aspect of movement. We also discuss uveitis and how to manage it in a horse suffering from this painful and potentially blinding eye disease.

We hope that everything goes to plan for this season of competition and if you are not competing, simply enjoy the fantastic spectacle we all call dressage.

All the best,

*Dr John Kohnke BVSc. RDA*

### In this issue...

\* **Suppleness - the finer points**

\* **Uveitis - what is it?**

**Plus handy hints and lots more!**

#### Handy Hint 1: Cresty Necks before Competition

Many horses in condition for competition develop an overly 'cresty neck' from the high energy feeds needed to achieve an accepted standard in body condition for competition. It is unwise to cut the diet back as the horse may lose impulsion and ability to sustain movement during competition. Some owners resort to 'neck sweats' to trim down an excessive neck crest, especially one that tends to fall to one side when relaxed at the walk. Using a daily supplement, such as **Kohnke's Own Trim™**, which contains specific nutritional ingredients which have a role in metabolising excessive fat, can help trim down a cresty neck. Best results are obtained by using double daily doses of Trim for 5-7 days before competition, without the need to spend time using a neck sweat. Trim will not affect hind quarter fat deposits during the short course over 5-7 days.

#### Handy Hint 2: Hardening the Soles after Wet Weather

In many areas, wet winter conditions have resulted in many heavier Warmblood and Sport horses losing hoof support as a result of soft, collapsed soles caused by the water-logging effect of continuing wet underfoot conditions. Stabling a horse on dry sawdust or on shavings for 2-3 days and minimising access to wet areas in a paddock, will help the hooves to dry out and regain support and resilience to bear weight during exercise without being 'ouchy' or short in the stride. If the soles are very water-logged, scrub the soles with 10% Betadine and leave it on for 10-15 minutes so that the slow release iodine has a chance to penetrate small hairline cracks and reduce sub-surface contamination. Rinse off and pat dry with paper towelling. Then hold each hoof up and flood the sole and frog with methylated spirits to repel and 'scavenge' excess moisture. Swab off and repeat. Then apply a thin coating of **Kohnke's Own Hoof Seal®** which has a role in normalising hoof moisture content under both wet and dry conditions.

### Did You Know That...

- It is unwise to give antibiotics to control an internal hoof infection, unless the hoof abscess has burst through the sole or coronary band. If given too early during the infection build-up deep within the hoof structure, antibiotics, such as penicillin (usually the most effective), may only kill a relatively small number of bacteria to result in a 'cold abscess' which can simmer for days or weeks, only to break out again.
- It is best to have your farrier or vet locate the sore area with hoof testers and then open it to drain the 'pus' and discharge. Then treat with antibiotics to clear up the infection. If an abscess breaks out and takes longer than 12 hours to drain and for the inflammation and acute lameness to subside, seek advice from your vet as an antibiotic course into the muscle for 5-7 days and infusion of an antibiotic solution in through the abscess 'hole' may be indicated. Repeat the antibiotic irrigation or infusion daily, enclosing the hoof in a thick plastic bag or 3-4 layers of kitchen wrap. Then wrap it in a waterproof elastic rubberised bandage to keep it dry for 2-3 days until the drainage clears and the hole seals over. It is best to confine the horse to a stable with dry bedding for a few days. Consult your vet for advice.
- It is also good practice to give a tetanus toxoid booster if one has not been administered for 2 years or longer (or tetanus antitoxin should be given as well if vaccination status is not known. Tetanus organisms can gain entry to the hooves and flourish in the low oxygen conditions, especially in a deep penetrating wound or a nail prick. All nail pricks should be opened immediately to allow drainage and antibiotics given under the supervision of your vet. If the abscess does not drain when opened, then apply a warm bandage poultice, such as Animalintex® overnight, to encourage the abscess to accumulate more 'pus' and burst out through the opening. Consult your vet or farrier for advice.

### Did you know that...

Horses working on deep or compacted sand arenas can suffer mild sprains of one or more of the front and rear fetlock joints. This can result in the formation of a 'windgall' on the side of the over-flexed or concussed joint. Windgalls are formed by the out-pouching of the joint capsule due to a 'synovitis' or a build-up of excess joint fluid as a reaction to inflammation or sprain within the joint. Once windgalls develop, they usually remain as visible, defined swellings on the sides of the affected fetlock joint(s).

**In early cases, a course of an anti-inflammatory, such as 'bute' can help to minimise the joint inflammation and limit the size of the windgall. In most cases, the soft fluid swellings remain as a sign of prior joint sprain and do not result in lameness or long term unsoundness for dressage training.** It is a waste of time draining the 'sac' or infusing corticosteroids into the joint as the fibrous lining of the windgall does not shrink. Applying a working bandage to support the joint may reduce the risk of a windgall enlarging. Avoid working on deep or compacted arena surfaces or working the horse excessively in small circles to help minimise recurrence.

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Email: [info@kohnkesown.com](mailto:info@kohnkesown.com)

Address: PO Box 3234, Rouse Hill, NSW, 2155

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# SUPPLENESS THE FINER POINTS

The expression of 'suppleness' is one that many riders aim for in a horse when training for dressage. It is derived from the German word 'losgelassenheit' which is translated as meaning 'relaxation and gentle free movement and an even, flowing stride'. It is one of the most important physical fitness principles of dressage training and in many cases, the one which is least understood by riders. Suppleness develops the flexibility and rhythm of movement, allowing influence and control over the hind quarters.

'Suppleness' does not develop instinctively with training, but rather it needs to be conditioned and developed by specific exercises during training. It must not be a 'forced' movement achieved by hard, day to day training. Over-flexion of the neck to 'force' suppleness and contact disconnects the neck from the rest of the body and prevents forward movement and hind limb impulsion. The horse must work in a free-flowing relaxed, flexible and responsive way in union with the rider to achieve the beauty and classic movement of dressage. Suppleness encompasses increased muscle and physical fitness to encourage blood flow, warming and stretching within the neck and trunk muscles. It helps to extend range of movement and elastic rebound in the joints, tendons and ligaments of the lower limb, as well as flexion of the head, neck and back during exercise. Suppleness should enable flexibility and looseness of extended movements and joint mobility. It allows recovery without stiffness or soreness after work. The horse should be physically fit and conditioned to be able to flex and bend the spine laterally (sideways), without resistance or tension, whilst retaining its rhythm of movement.

## Rhythm of Movement

The real outcome of dressage should be based on systematic training to enable a horse to perform easily with rhythmical movement and provide the rider with an enjoyable and comfortable ride.

Suppleness allows rhythm and regularity in movement. It is one of the early phases which should be worked on after initial fitness training, before more complicated and advanced movements are attempted as part of dressage schooling.

Suppleness is achieved before asking for contact where the horse is encouraged to work and stretch into a soft rein and learn to move with a natural controlled movement of its head. The rider also has to be fit and relaxed to move with the rhythm of the horse, transferring power through the horse's back in a wave-like motion to produce suppleness.

Suppleness is the end result as a horse becomes conditioned, both physically and mentally as its level of fitness and flexibility of movement in response to specific exercises is achieved. The horse should be encouraged to move with an even stride, flex easily to the side and move its body through its back with its tail swinging freely from side to side. As the horse becomes 'supple' and learns to relax, it loosens at the poll and begins to exhale air in synchronisation with its leading forelimb at the canter, with a soft rhythmic breathing sound through its nose.

### Handy Hint 4: Suppleness Takes Time to Develop

Suppleness is developed gradually as the rhythm of movement is conditioned in all paces. The ability to maintain rhythm of movement should be developed by training over time. Rhythm of movement should be maintained despite changes of gait, direction and flexion required to perform the freedom of movement achieved by suppleness as a horse gains skills and fitness. Some horses are able to develop suppleness more quickly than others. Once achieved, regular exercises to maintain suppleness need to be carried out to enable relaxation and to maintain flexibility of the muscle groups for free flowing movement.

Suppleness enables a horse to relax in movements during transitions and maintain contact gently as the reins are lengthened at a controlled working speed. Without rhythm, contact and impulsion, there is no classical dressage movement!

## Achieving 'Suppleness'

Most other equine athletes are conditioned for power, speed, endurance or stamina. For dressage, a horse has to have stamina to develop precise, repeated movements with a high degree of fitness, focused on flexibility, strength and suppleness. Early ground work, including long distance conditioning exercise is required to develop basic cardiovascular fitness and respiratory capacity, especially oxygen uptake for efficient muscle function. All training methods should also be designed to improve tendon and joint strength and resilience to avoid overload and risk of injury during advanced movement. This is achieved by exercise at a trot on a hard even surface, such as roadway or track, to improve strength and elastic rebound. In fact, many overseas trainers include one day every 6-7 days for 'relaxation' and 'pleasure' training. This involves road work at a walk or trot for 2-3 kms to help break the monotony and routine of arena work. It helps to maintain tendon, ligament and joint resilience. Simply riding a horse out in a paddock for 20-30 minutes once a week will help to relieve monotony and give both the horse and rider an opportunity to relax and enjoy the experience away from the routine of daily arena training.

## Muscle Structure

Dressage training aims to condition the neck, shoulder and topline muscles so that they can improve flexibility with lateral movement. Training should be focused on neck and poll movement to engage and transfer weight to the hindquarters, without overloading the muscles which can cause stiffness and discomfort on cooling down after training. The topline must become 'supple' to allow the horse to swing its hind quarters freely and stretch towards the bit. Lack of fitness will prevent the back and neck muscles connecting to contract on an upward motion. Horses which hollow their backs due to stiffness and lack of suppleness, often lack contact with the bit and develop weak underside muscles on the neck. The trunk or lateral muscles of the barrel must also be conditioned to be flexible and bend laterally to ensure optimum suppleness. The combination of 'longitudinal' suppleness along the topline from the haunches to the poll, and 'lateral' suppleness along the sides of the barrel, complete the flexibility and rhythm of movement required for dressage.

### Handy Hint 3: Plan Training in a Step-Wise Progressive Program

It is also important that training is not aimed at rapidly achieving the execution of a particular movement, without a progressive plan set out from week to week to improve flexibility, strength and extent of movement - the essence of suppleness. It is helpful to develop an alternate day training plan which aims to correctly condition and improve suppleness, without forcing a horse to bend or exercise in a collected gait on a daily basis, especially during the first 8-10 weeks of training. The lighter work days in between specific flexion training should allow restoration of muscle tissue between workouts. Horses which have outside access to a safe paddock will be able to rest, relax and restore optimum muscle function by walking and grazing. Horses stabled indoors should be allotted time in a paddock to graze and relax on lighter work days.

### Handy Hint 5: Avoid Forced Flexion of the Neck

Although arching of the neck in a 'supple' horse allows bit contact, without properly conditioned lateral muscles, forced arching of the neck will result in tightening of the back muscles, excessive tension and resistant behaviour. The abnormal focus through the neck can ultimately result in lower back pain, with stiffness, strain and muscle tension. This prevents the free flowing movement of horse and rider and optimum contact and control.



## Types of Suppleness

Dr Hilary Clayton, a world recognised equine exercise physiologist and accomplished dressage rider, divides suppling exercises into 'passive' suppling and 'dynamic' suppling. Suppling exercises are usually directed towards the shoulders, topline or spinal column, the haunches and hips.

**'Passive' Suppling\*** - This is the basis for improving the flexibility of muscles and joints. Movement is controlled to slowly work the muscles without triggering the 'myotatic stretch reaction' or reflex, which would result in tension and resistance in the opposing muscles. The horse should be warmed up by light work under saddle so that the muscles are warm and more flexible, then after dismounting, 'passive' suppling can be carried out by flexing and extending each of the front and hind limbs. When the limit of muscle stretch is reached, the position is held for 20 seconds to allow the muscles to 'calibrate' themselves to the elongation and thus condition a greater and more permanent stretch limit within the ligaments, joints and tendons of the neck, upper and lower limbs.

It is more beneficial to perform 'stretch' or 'flexing' exercises during or following exercise when the muscles are warm and have been contracted and relaxed through the normal exercise range.

The limbs on both sides can be flexed backwards and stretched forward to their limit, holding them in the flexed or stretched position for 20 seconds, before slowly releasing them. The hind limbs can be held up and flexed forward and stretched backwards in a similar way. The exercises are given to both hind limbs to even up the flexion and stretching suppling, avoiding discomfort. The horse should be relaxed and comfortable, without over-stretching which conditions the opposite muscles. Each of the lower limb joints are also flexed through their full range of movement, held for 20 seconds, and released slowly to improve the range of flexion/extension.

### Handy Hint 6: Conditioning Neck and Lateral Flexion

One of the easiest ways to encourage downward flexion of the neck is to hold a piece of apple or a small carrot in your hand, position it behind the inside of the elbow, then move it forward between the knees so that it encourages the horse to put its head down and take the 'tidbit'. This can be repeated 4-5 times after warm-up exercise to encourage additional downward flexion of the neck. Lateral flexion can be achieved by holding a similar 'tidbit' low on the flank and encouraging the horse to bend its neck to the side, stretching the neck and shoulder muscles. Repeat 3-4 passive stretches on each side.

**'Dynamic' Suppling\*** - This is performed during exercise under saddle where the muscle or joint is encouraged to flex under load or weight bearing so that it is conditioned to bend and flex during specific training exercise. These movements include large circle turns, voltes, leg yielding, shoulders in/out, haunches in/out and half pass movements.

All these movements, when combined during a workout under saddle, encourage maximum bending, flexion and rotation of the spinal column, the shoulders and the swinging action of the hind limbs through a full arc of normal movement.

**\*Note:** Passive and Dynamic Suppling exercises are those suggested by Dr Hilary Clayton, **Conditioning Sport Horses**, Sport Horse Publications, Pg 121-134.

## Specific Exercises to Promote Suppleness - Guidelines Only

**Transitions** are a good start to creating suppleness. After a sufficient warm-up of forward stretching, you can begin to incorporate walk-trot transitions by making your horse take a few steps at the walk and then transitioning into a trot until he is calm. Repeat transitions up and down a few times. It is best to shorten the time between each transition as your horse becomes more responsive. After your horse is relaxed with walk-trot, introduce trot-canter transitions into the workout. The horse should begin to relax as he moves from one gait into another. Transitions are not only good for longitudinal suppleness, but will also teach the horse to engage and come up off the forehand. The trot is considered the gait which creates the ideal full degree of suppleness. The diagonal limb placement of the trot helps work the muscles evenly. However, some horses relax more in the canter, so trying both the trot and canter to relax the horse needs to be tailored individually to each horse. Once these basic transitions have been established, transitions within the gait can then be established. For example, starting with a working trot to medium trot, or medium canter to lengthened canter and back will help to improve longitudinal suppleness.

**Circles** have several benefits when suppling the horse. Firstly, they strengthen the inside hind leg structures of the horse, and secondly, help with engagement and balance. When riding in a circle, you condition the horse to bend around your inside leg, moving onto the outside rein so that you can see his eyelashes of the inside eye. Occasionally to help your horse become more elastic and loose, you can bend him a little extra for a few strides, asking him to bring his nose to the inside or outside for a few strides, then straightening again. This must be done with care, so as to not force your horse into this frame. The horse must be willing to bend his head and neck around in answer to your aids.

**Lateral Exercises** are the most basic, such as the leg yield. Begin at the rising trot, being careful not to over-flex the neck to the inside. This should be done at first sparingly and not every day. As your horse advances, practicing 'shoulder-in', repeated with straight work in between, will promote suppleness. This can be performed at the walk and trot. As with leg yield, it is important to not 'over-bend' the neck or bring the shoulders too far off the track by demanding excessive lateral flexion.

**Note:** Please consult with your own dressage instructor to develop the most suitable suppling exercises tailored to your horse's fitness and level of competence. Thanks to Ella Staas and Lesley Dowey for their input into this review of suppling.

### Handy Hint 7: Post Exercise Massage Helps Suppleness\*

After the muscles of the neck, shoulders, spinal column and haunches have been flexed to their limits by passive or dynamic suppling, it is important to assist post-exercise recovery by gentle kneading massage with the closed fist for 30 seconds over each muscle group on each side to relax deep muscle structures. This will help reduce post-exercise soreness and improve overall suppleness.

### Handy Hint 8: Suppling up for Exercise

It is important to 'supple-up' your horse prior to dressage training in an arena. Studies have shown that leg stretching exercises performed when a horse is cold before exercising to warm it up, do very little in terms of preparing muscles for loading as these exercises are passive, non-loaded movements. Lungeing is the most common form of warm-up, but excessive loading and strain can occur on the inside front limb and fetlock on the circle before these structures become supple, flexible and gain full movement. Studies have shown that lungeing at a trot, even in a wide diameter circle in excess of 3 minutes without a change in direction, can overload the lower limb joints. Horses should not be warmed-up at a canter on a lunge circle. One of the most beneficial warm-up and 'suppling' routines is to lightly massage the neck, shoulder and hind quarter muscles for 10-15 seconds on each side, then walk the horse **on a lead** (already geared up) over 3 parallel jumping poles spaced 4 metres apart on a flat surface, at an angle of 45° to the poles, in a figure 8 pattern for 4-5 laps. This exercise helps to supple and flex the upper body and spine, strengthen the sacroiliac and lower back area, stretch muscles on both sides on the figure '8' turns and encourages the horse to lift its legs and lightly flex the tendons. Then a walk to the arena, mount and walk 60 metres up the centre line in a zig-zag pattern, turn at C and lightly trot in a zig-zag, shoulder-in movement back to A to warm and supple-up for the day's training exercises.



# UVEITIS What is it?

Uveitis is the most common cause of impaired vision and loss of sight in horses. It is often a recurring or periodic eye disease, and was historically referred to as 'Moon Blindness' because affected horses had limited vision at night, or 'Periodic Ophthalmia', because it occurred in periodic attacks after the initial infection. It is now termed 'Equine Recurrent Uveitis', or ERU for this reason. New treatments with combined drug therapy and better diagnosis, has improved the outcome in this potentially blinding disease. It is one disease that can seriously curtail a horse's promising dressage career and it often worsens in nature as a horse ages.

**What is Uveitis?** It is a name given to inflammation of the uveal tract of the eyeball. The uveal tract includes the iris (the coloured membrane of the eye which opens and closes the pupil), the ciliary body (it produces a watery fluid which helps maintain the shape of the eyeball) and the choroid or black area of the eye (it supplies blood and nutrients to the inner parts of the eye). It may affect one or both eyes, but once a horse develops uveitis, it often recurs at varying intervals. Unfortunately, repeated attacks further damage the internal structure of the eye. Often, low grade inflammation persists in the affected eye(s) between more severe attacks.

**What Causes Uveitis?** ERU is thought to be an immune-mediated inflammatory reaction which is secondary to an injury or infectious disease. Its severity seems to be related to exposure to UV waves in sunlight. Common causes include systemic bacterial infections, such as Leptospirosis, Brucellosis (the cause of fistula withers, which is very uncommon nowadays) and Streptococcal infections following peritonitis, severe diarrhoea or Strangles. Viral infections of the respiratory tract, including EHV-1, EHV-4, and Equine Influenza (EI) can trigger the immune-mediated reaction. A number of horses which contracted EI in the 2007 outbreak in NSW and QLD, have suffered from ERU over the past 5 years.

Even a severe tooth abscess, under-run sole and hoof wall abscess, the immune response to heavy burdens of Small Redworms and Onchocerca parasites (where migrating microfilaria in the blood have entered the eye structures) have been associated with ERU. The normal immune reaction to bacterial, viral or other infectious agents appears to be intensified in the uveal tract and has a recurrent, repeating pattern of flare-ups. In many cases, uveitis may not develop for months or even years after a systemic infection.

Dusty conditions, drying winds and fly worry, all increase the risk of infection and the development of immune-mediated eye disease.

**What are the Signs of Uveitis?** In most cases, horses initially develop a 'cloudiness' within the eyeball - often with redness and severe pain. They blink repeatedly, holding the eyelids closed and appear to squint when in sunlight. In many cases, the eyes overflow with tears due to the inflammation and irritation, with a bluish tinge to the cornea or clear part of the eye. In severe cases, inflammatory exudates accumulate in the eyeball and may cause detachment of the retina and intra-ocular haemorrhage. Often one eye will be affected more severely, if both eyes are involved.

**What Treatments are Available?** Prompt recognition of all eye diseases is essential and especially important in cases of uveitis, because of the risk of severe and potentially blinding internal damage. Blood tests and serological assays should be carried out to determine the possible underlying infectious causes. Any horse which injures its eye(s) should be examined by a vet to determine damage or inflammation to the uveal tract. If the underlying cause can be identified, then appropriate treatment to reduce the immune-mediated reaction should be instigated immediately.

Anti-inflammatory medication, immunomodulators and drugs, such as atropine drops instilled into the eye in a darkened stable, will induce pupillary dilation, reduce pain and improve drainage to limit damaging pressure build-up and the degree of internal damage. Oral anti-inflammatory medication may need to be maintained for 2-3 months, combined with subconjunctival injections of long acting corticosteroid drugs to act to slowly release these anti-inflammatory control agents.

### Handy Hint 9: Ensure Effective Fly Control Outdoors

It is important to maintain effective fly control, especially when horses are outdoors in sunlight. A dark mesh fly mask is ideal when horses are grazing outdoors to minimise fly worry and subsequent introduction of infection into the eye environment and UV allergic response to bright sunlight. Daily applications of a long-acting fly repellent to the forelock and forehead, but not directly above the eyes as residues may wash into the eye, is also helpful to reduce fly worry. Maintaining a dust free environment by dampening hay and hard feed will also reduce the risk of infection being introduced to the uveal tract.

### Handy Hint 10: Check for Uveitis in a Pre-Purchase Vet Check

Because uveitis is a potential recurring and possible career ending eye disease, it is important to have any horse with a high purchase value examined for uveal tract disease as it is considered an unsoundness. In most cases, musculo-skeletal soundness with flexion tests and X-Rays, as well as respiratory tract examination by scoping, are carried out as an examination for soundness of purpose. However, if an examination of each eye by a veterinary ophthalmologist finds that a horse has retinal degenerative changes in one or both eyes, then it is likely to have a recurrent uveitis and long term risk of compromised vision. Much time and effort can be put into training a horse over a number of years with a risk of long term retinal degeneration without any obvious early outward signs of uveitis. Consult your vet for advice.

*This dressage pony was under treatment for acute uveitis when the photograph was taken. The eyelids of the inflamed eye are closed against sensitivity to light. Tear staining can be seen below the inside corner of the eye & the areas around the eye can be seen to be swollen.*



**Disclaimer:** The information and recommendations in this newsletter have been presented as a guideline based on the veterinary experience and knowledge of the author, Dr John Kohnke BVSc RDA. Whilst all care, diligence and years of practical experience have been combined to produce this information, the author/editor, Dr John Kohnke, accepts no responsibility or liability for unforeseen consequences resulting from the hints and advice given in this newsletter.

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