Inside this issue:

**Keeping your horse’s tendons healthy**
Find out how to avoid injury and keep your horse fighting fit

**Castration - what to expect**
Discover all you need to know about the castration procedure
XLEquine and your veterinary practice - what does it mean?

Within the veterinary profession there are traditional privately owned practices and others that are part of a larger corporate group. XLEquine practices fall into the first category and as we are owned and run by vets, any decisions that are made come with a sound ethical and clinical backing from the vets on the ground who are treating your horses.

XLEquine is the equine specialist division of XLVets which, founded in 2005, is a unique group of veterinary practices which span the length and breadth of the country, from Penzance to Orkney. Our member practices range from large equine referral hospitals to mixed veterinary practices with an equine component, incorporating over 100 equine vets. Our aim is to work collaboratively and cooperatively to share resources, learning and clinical skills to deliver a high level of customer care and equine welfare.

Whilst, like any business there is a need to generate profit, the drive for this is to reinvest in the facilities, equipment and staff who are there to give your equine friends the very best. A quality veterinary practice will always be progressive in exploring new ways to deliver excellent care to you as horse owners.

As a horse owner this gives reassurance that if your horse, pony or donkey is treated by a practice carrying the XLEquine brand, you will have the personal approach that you have come to expect from your local independent veterinary practice, but the backing of one of the most respected groups of vets in the country - and the only collaborative group of its kind.

XLEquine practices work together to share knowledge and skills, to ensure together we are equipped to keep your horses well and healthy. XLEquine vets very much focus on helping you keep your horses fit, not just treating them when they are ill.

There are many ways you can get involved with XLEquine including our healthcare campaigns such as ‘Keep one step ahead’ and our practical vet-led EquineSkills training workshops - visit www.xlequine.co.uk for more information.

XLEquine provides a quality assurance mark for excellent equine care. We are proud to be associated with XLEquine and hope that you will feel proud of your practice too.

“I am very grateful for the collaborative yet skilled approach you take, and the sensitive way in which you deal with the difficult dilemmas we all face as horse owners.”

C Hopkins Kingston

www.xlequine.co.uk
Welcome to the ‘Summer 2016’ issue of Equine Matters...

...produced by XLEquine practices.

The XLEquine campaign in 2016 is ‘Picture of Health’, which puts preventative care of the horse at the forefront of everyone’s minds. In this issue we are echoing this theme with several of the articles aimed at what we can do to keep our horses healthy. We have included articles on how to keep your horses healthy while training and whilst travelling or when at competitions; as well as a really useful ‘pull out and keep’ section for the yard. We answer more of your questions, tackle tricky topics, as well as report on some fascinating case studies. One lucky reader will win one of our fantastic first aid kits for their selfie - find out who inside!

On behalf of XLEquine, we hope you enjoy the summer and happy reading.

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Working together to build a **Picture of Health**

XLEquine veterinary practices believe that prevention is better than cure. Talk to your local XLEquine veterinary surgeon about preventative healthcare so together we can ensure your horse is a complete **Picture of Health**.

**Eyes**  **Dental Care**  **Parasite Control**  **Vaccination**

**T:** 01228 711788  **www.xlequine.co.uk**
Seasonal Allergic Dermatitis

Richard Morris BSc BVetMed CertVD MRCVS, Fenwold Veterinary Group

An allergic reaction is where an individual’s immune system overreacts to a harmless agent to which the majority of animals would not react.

There is an infinite number of agents that can cause allergic disease but the most common agents and some of the diseases they cause are summarised in Table 1. Seasonal allergic skin disease can only happen at certain times of the year in susceptible individuals. The symptoms include hives (raised wheals) and severe itching with self trauma causing skin damage and leaking of serum (clear, yellow fluid). The inciting allergen(s) can be very hard to identify although exclusion or elimination trials and intradermal skin tests can help identify the cause. Treatment with topical and oral anti-inflammatories, and antibiotic medication if necessary, is often helpful; or a course of hyposensitisation injections can be performed.

<table>
<thead>
<tr>
<th>Agent</th>
<th>Organ Affected</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insect bites (midge/black fly)</td>
<td>Skin</td>
<td>Sweet Itch</td>
</tr>
<tr>
<td>Hay moulds, stable dust and dust mites</td>
<td>Respiratory system</td>
<td>Recurrent airway obstruction (RAO)/Equine asthma</td>
</tr>
<tr>
<td>Tree, flower and grass pollen</td>
<td>Respiratory system</td>
<td>Summer pasture associated RAO/Equine asthma</td>
</tr>
<tr>
<td>Stable dust, mould spores and dust mites</td>
<td>Skin</td>
<td>Year round allergic dermatitis - atopic dermatitis</td>
</tr>
<tr>
<td>Tree, flower and grass pollen</td>
<td>Skin</td>
<td>Seasonal atopic dermatitis</td>
</tr>
</tbody>
</table>

Table 1. Common equine allergic diseases and implicated allergens

'Texas', an eight year old Thoroughbred cross gelding developed progressively itchy skin every Spring and would rub himself raw (figure 1). In previous years it had settled after a few weeks of topical medication but it became progressively worse each year such that the owner sought help from the practice. After taking several laboratory samples to rule out other diseases such as lice, mange or ringworm, intradermal skin testing (figure 2) was performed which identified pollen from plants flowering in the nearby hedgerow (tree pollens, Scotch Pine (figure 3), Meadow Fescue and Lambs Quarter) as the allergens.

Management involved preventing further exposure to these plants and so he was immediately moved away from the hedgerow, and the existing skin infection was treated with topical and intravenous corticosteroids. After this initial treatment his condition was managed by avoiding the plants he was allergic to and treating any flare ups with appropriate medication as and when necessary. Linseed oil supplementation can also be useful in managing allergic skin disease. His condition has greatly improved and he no longer has to suffer the debilitating symptoms that previously made his life so miserable.

Figure 1. Allergic skin disease with resultant self trauma causing hair loss and skin infection.

Management involved preventing further exposure to these plants and so he was immediately moved away from the hedgerow, and the existing skin infection was treated with topical and intravenous corticosteroids. After this initial treatment his condition was managed by avoiding the plants he was allergic to and treating any flare ups with appropriate medication as and when necessary. Linseed oil supplementation can also be useful in managing allergic skin disease. His condition has greatly improved and he no longer has to suffer the debilitating symptoms that previously made his life so miserable.
A complicated castration

Castration is one of the commonest surgical procedures performed in veterinary practice and is generally straightforward, however as with any surgical technique complications can and occasionally do occur.

Bracken, an 18 month old cob, was a very friendly, amenable chap, having been raised in a rescue centre from an early age (figure 1). Once rehomed, his owner’s vet made the decision to perform a standing open castration. The procedure went smoothly and initially the healing process proceeded normally.

Unfortunately, a couple of weeks down the line it became clear things were not quite right. The owner noticed that Bracken appeared to be walking with a slight waddle. On closer inspection, she noticed that his scrotum was very swollen with discharge coming from the castration wound. The owner rang her vet to seek further advice. After examination, it was clear that the castration site had become infected. Under sedation, the incision was reopened to ensure infected fluid was not being retained and to allow drainage. Bracken started on a course of broad spectrum oral antimicrobials to try and combat infection, along with anti-inflammatories to ease his discomfort and reduce the swelling.

Feeling worried, the owner contacted the yard from which she had rehomed Bracken for help. The yard manager agreed to help, and offered to care for Bracken at the rescue centre until the problem had been resolved. At this stage Bracken was examined by the vets for the rescue centre, Cliffe Equine. Working closely with the original veterinary surgeons, all parties agreed that Bracken needed surgery.

At surgery it was clear that about six inches of cord was thickened and infected, but the junction with normal cord deeper inside could be clearly seen (figure 3). Exposing and removing a section of the normal cord was very important to prevent recurrence of the
infection (Figure 4). A swab was submitted for bacterial culture and sensitivity to ensure the correct antimicrobials could be used.

Bracken was discharged from the hospital on oral potentiated sulphonamides, and healing started well. *E. coli* and *Staphylococcus aureus* were grown and both were reported to be sensitive to the chosen antimicrobial. Interestingly, this swab confirmed one of the bacteria identified was resistant to the antimicrobial that was being given prior to surgery.

A routine check up ten days after surgery revealed an increase in discharge and swelling, although the wound was healing well (Figure 5). A second swab was taken to ensure new bacteria had not started to grow. This result agreed with the previous sample, leading to discussion as to why the wound was starting to deteriorate again. Potentiated sulphonamides are the commonest prescribed antibiotic in equine practice as it can be given as granules in feed, and has a broad spectrum of activity, meaning that most common bacteria are susceptible to it. However, this antibiotic is deactivated in the presence of pus, as in this case, rendering it less useful in discharging wounds. In light of this, we discussed the options with the owner and we agreed to start Bracken on a short course of intravenous gentamicin. The wound immediately dried up (Figure 6) and healed within a couple of weeks.

With the threat of antimicrobial resistance becoming more widespread in human and animal populations, it is critical to make every effort to ensure these drugs are only prescribed when absolutely necessary, at the right time in a case, for the right duration, by an appropriate route and at the right dose. Patient compliance can be a significant issue, with horses often not eating medication, and the limited choice of oral drug available to equine vets does little to help! It is important that we are protective of these drugs or a future without antibiotics will be our reality.

Figure 3. The difference between normal and abnormal tissue is clear
Figure 4. The unhealthy tissue has been removed.
Figure 5. Discharge on the healing wound
Figure 6. Clean, healthy granulation tissue, the hallmark of good wound healing
Keeping your horse healthy during the competition season

Introduction
Spring, summer, and autumn are busy times for owners who enjoy competing their horses. The light evenings make it possible to ride more frequently and train to take part in a competition (figure 1). Whether this is at a local show, affiliated competition or championship class, your horse needs to be healthy in order to do their job to the best of their ability. Below are some hints and tips regarding keeping your horse healthy during the competition season.

Vaccinations
At least one month before going to a show, check with your vet to make sure your horse is up to date with their vaccinations. Some shows will refuse entry to horses without an up-to-date vaccine history. Vaccination is also a good way to protect your horse, as they will come into contact with lots of other horses at the show and this can encourage the spread of disease.
We are all familiar with the phrase ‘no foot, no horse’, and it is all too true when considered in the context of a competition horse (figure 3). Regular farriery, at least every six weeks, will help to keep your horse’s feet balanced. This in turn, will reduce the risk of your horse developing lameness. If your horse already has a problem, remedial farriery can help to manage existing conditions and allow your horse to continue to compete comfortably. Basic foot care is also important. Horse’s feet should be picked out twice daily and assessed for signs of damage. Hoof ointments and supplements can be used to help maintain healthy feet.

Make sure your horse is in good body condition and monitor him/her regularly. You can use a weightape to monitor weight loss or weight gain (figure 2).

Whether your horse is a ‘good-doer’ or not, they require good quality forage, making up as much as 80% of their diet. Forage comes in many forms with hay being the cheapest. Be aware that dusty or mouldy hay can irritate the airways and lead to conditions such as recurrent airway obstruction (RAO). This condition can cause poor performance in affected individuals, so to avoid this feed only good quality hay. Haylage can also be fed as this is less likely to contain dust and mould spores. If in any doubt, hay can be soaked but this must be for at least 30 minutes to be effective. There are many compound feeds on the market for specific disciplines. Read the bag very carefully to work out if your horse really needs these extra calories. Feeding a balancer alongside good quality forage and access to grass is enough for many horses. Extra calories can also safely be provided in the form of oil.

Intense activity during competition or training will cause your horse to sweat and lose electrolytes. For effective rehydration, both water and electrolytes are needed. Adding an electrolyte supplement to your horse’s water is one way to achieve this, but if they refuse to drink the solution, you may have to try an alternative method such as adding electrolytes to the feed. Always provide fresh water alongside any electrolyte solutions. Making the feed wet and slushy and adding succulents such as apples and carrots, can encourage your horse to consume the electrolytes. Adding soaked sugar beet is an easy way to tempt horses to eat and has the added benefit of supplying highly digestible fibre.

There are many things to consider when attempting to keep the competition horse healthy. Whatever the level of competition, small things can make a big difference.
Strain induced injury of the tendons and ligaments is the most common orthopaedic injury in athletic animals, be they equine or human.

A recent survey of race horse injuries sustained at UK race tracks showed that almost half (46%) of all limb injuries were due to flexor tendon and/or suspensory ligament injuries. This survey also confirmed that these injuries were more common in older horses racing over jumps than younger horses racing on the flat.

Tendons and ligaments can be injured in two ways: direct injury/laceration through the skin or via overstrain, which we will consider further. Overstrain can occur as the result of sudden overload of the tendon, or via a phase of degeneration culminating in tendon injury. There may be many risk factors involved in an injury:

- speed of the horse: the greater the speed, the greater the risk;
- age of the horse: the older the horse, the stiffer the tendon;
- surface: hard going is associated with tendonitis, as it accommodates faster work and increases peak impacts of the tendon;
- height of the jumps;
- weight the horse is carrying;
- fatigue or fitness of the horse;
- shoeing type.

Some of these factors may be adjusted, others are inherent to the sporting careers of the equine athlete and will not be easily altered.

The age of the horse plays an important role in the ultimate strength of the tendon. The age at which the equine flexor tendon matures is estimated at around two years of age. Normal young tendons have a crimp pattern to allow for increased flexibility. The tendon loses some of this crimp over time, with fibres at the core of the tendon more affected. This increased stiffness could lead to core lesions where the central tendon fibres have torn once strained (figure 1).

Figure 1. The black area within the superficial digital flexor tendon is a core lesion, with complete loss of tendon fibres.

![Diagram of Tendon Stretching Capability](chart.png)
Several studies have found that there is a window of opportunity in the adaptation of tendons to exercise. When foals were allowed constant pasture turn out rather than box rest or box rest with enforced exercise the tendons of the constant pasture group were of a better quality compared with the other two groups. This will ensure that the flexor tendons are most resistant to injury during adulthood. Therefore the gambolling activities of foals at pasture seem to be ideally suited and essential to condition the tendons at an early age (figure 2).

Once a tendon suffers an injury, be it a full blown tendon injury (figure 3), or continuous microdamage to the individual tendon fibres, the repair leads to the replacement of the normal tendon collagen with scar tissue. Scar tissue forms from a different type of collagen and results in a tendon that is structurally stiffer than the original. This will make it more vulnerable to repeat injury. Prevention of tendon injury is therefore key and four broad approaches for prevention can be considered.

### Prevention

1. **Maximise the quality of the tendon prior to skeletal maturity.** Using carefully tailored exercise regimes during growth will potentially improve the quality of the tendon and minimise effects of degeneration induced by racing and training after skeletal maturity.

2. **Reducing degeneration after skeletal maturity** may be the answer to the prevention of tendon injuries, and new studies are looking into what causes this degeneration and how it can be avoided. However, currently we know that high repetitive loading (fast speeds/high jumping) is likely to be the most damaging (figure 4).

3. **Reduce the risk factors for tendinitis.** Clinical tendinitis is provoked by sudden peak forces that overcome the strength of the (degenerated) tendon. This can occur at any time, including at pasture, but is obviously most likely when the tendons are loaded maximally - at high speeds and/or over high jumps. This explains why the best horses are more prone to injury.

4. **Early detection.** This is not really a prevention strategy as a degree of injury has already occurred. However, if a tendon injury can be detected early, it is possible to prevent progression to more severe disease. This relies on palpating the tendons carefully before and after exercise to detect any heat, swelling or pain. If there is any doubt, your veterinary surgeon should be contacted to perform an ultrasound scan of the tendons.

**Prevention is better than the cure, particularly with tendon injuries, but early detection is equally important to prevent a more serious injury with catastrophic consequences!**

Ground surface, which affects the horse’s speed; fatigue, e.g. after a long race or in unfit horses; jumping; shoeing and increased weight are all examples of factors that can increase the peak tendon loading and are therefore risk factors. Making sure feet are well trimmed, and adapting the fitness levels of the horse to correlate with the desired level of exercise are both essential. A good warming up/cooling down regimen is also recommended.
Pull out and keep!
Keeping horses healthy

As members of the equine industry, we are all responsible for the health and welfare of our own horses or those we care for. With riding increasing in popularity, the UK horse population is on the rise and more and more horses are being moved around the country and abroad.

This means that the risk of disease is higher than ever and we all need to play our part in prevention and control.

There are lots of steps you can take, as an individual horse owner or as a yard, to help reduce the risk of infectious disease and to minimise the impact when it does occur.

Table 1 lists some of the more common equine infectious diseases that we see in the UK.

### Table 1: Common equine infectious diseases

<table>
<thead>
<tr>
<th>Respiratory</th>
<th>Skin</th>
<th>Gastrointestinal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equine influenza</td>
<td>Ringworm*</td>
<td>Worms</td>
</tr>
<tr>
<td>Strangles</td>
<td>Mites and lice</td>
<td>Salmonellosis*</td>
</tr>
<tr>
<td>Equine herpesvirus (EHV)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* zoonotic (transmissible to humans) diseases

**Recognising disease: the sooner the better**

Prevention is always better than cure but in the event that your horse does succumb to disease then early recognition can make all the difference to the outcome.

**Top tip!**

Know what is normal for your horse

Regular monitoring of your horse’s vital signs will alert you to any change that could indicate a problem. The normal reference ranges for vital signs in adult horses and donkeys are shown in Table 2.

### Table 2: Reference ranges for equine vital signs

<table>
<thead>
<tr>
<th>Physical Parameter</th>
<th>Normal range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectal temperature (Horse/pony)</td>
<td>37.5–38.5°C (99.5–101.3°F)</td>
</tr>
<tr>
<td>Rectal temperature (Donkey)</td>
<td>36.2 to 37.8°C (97.2 to 100°F)</td>
</tr>
<tr>
<td>Pulse/heart rate (beats per minute)</td>
<td>28–42</td>
</tr>
<tr>
<td>Respiratory rate (breaths per minute)</td>
<td>10–14</td>
</tr>
</tbody>
</table>
Establish a good management routine for checking your horse for any abnormalities.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Pick out feet</td>
</tr>
<tr>
<td></td>
<td>Check legs and body for lumps, bumps and wounds</td>
</tr>
<tr>
<td></td>
<td>Monitor demeanour, eating, drinking, droppings and urination</td>
</tr>
<tr>
<td>Monthly</td>
<td>Record weight (using a weighttape) and body condition score - adjust feed and exercise accordingly</td>
</tr>
<tr>
<td>Bimonthly - Quarterly</td>
<td>Book a visit from the farrier every 6-8 weeks, even if a horse is unshod</td>
</tr>
<tr>
<td></td>
<td>Submit a poo sample and treat horses if required with a suitable deworming product</td>
</tr>
<tr>
<td>Annually</td>
<td>Vaccinations and annual health check with your vet</td>
</tr>
<tr>
<td></td>
<td>Get teeth checked by your vet or a qualified equine dental technician (EDT)</td>
</tr>
</tbody>
</table>

**Disease prevention and control**

**Be prepared!**

Create a biosecurity plan for your yard. This is a set of management practices that reduces the potential for the introduction or spread of infectious disease. The four main areas that should be covered are vaccination, yard design, quarantine and disease control in the event of an outbreak. The importance of this planning document cannot be overstated.

**Vaccination**

Vaccination can prevent a horse from getting an infectious disease, or lessen the clinical signs associated with infection. If you are unsure about why you should vaccinate, here are five good reasons:

1. **Welfare** - whilst some diseases such as influenza can be very unpleasant, others such as tetanus are very often fatal; protect your horse by vaccinating for common diseases.
2. **Cost** - often the cost of treating an infected horse is far greater than the cost of vaccination.
3. **Lost time** - infected horses need time off to recover. This may mean time out from competition, fewer opportunities to qualify for events, loss of entry fees, or simply time lost when you could be enjoying your horse.
4. **Herd immunity** - having a certain percentage of the national herd vaccinated makes it difficult for a disease to spread as there are not enough susceptible animals. Approximately 70% of the UK horse population needs to be vaccinated against ‘flu to achieve herd immunity; current estimates are that fewer than 50% are vaccinated.
5. **Yard closure** - a disease outbreak can close a yard for weeks or even months, with no horses allowed on or off the premises. This can have devastating financial consequences for equine businesses.

It is recommended that all horses are vaccinated for ‘flu and tetanus. Vaccinations are also available for Equine Herpesvirus (EHV), strangles and some exotic (foreign) diseases; your vet can advise if any of these are appropriate for your horse.

**Yard design**

1. Ensure stables are well ventilated.
2. Keep stables clean and provide adequate bedding to prevent build-up of ammonia.
3. Site the muck heap away from stabling to reduce flies.
4. Maintain pasture by removing droppings where possible to reduce warm burdens.
5. Try to keep well-drained pasture for winter use so that horses are not standing in mud and maintain fencing to reduce the risk of injury or horses escaping from fields.
6. Remove poisonous plants and trees or fence them off to prevent access.
7. Identify at risk horses e.g. youngstock, broodmares or horses that travel frequently, and keep them in separate groups.
8. Keep troughs, automatic drinkers, water and feed buckets clean.
9. Avoid sharing grooming kit, rugs, tack and numnahs between horses and clean these items regularly.
10. Identify an area that can be used as an isolation facility in the event of a disease outbreak. This may be a stable, barn or even a field that is separate from the main yard.

**New arrivals**

New horses onto a yard need special consideration as they represent a possible means of introducing infection.

- New arrivals should be kept in quarantine for a minimum of 21 days.
- Ideally they should be handled by separate staff or, at minimum, protective clothing should be worn and dedicated equipment used.
- New horses should be fully vaccinated for influenza before entry onto the premises.
- A strangles blood test should have been carried out in the week prior to arrival. Ideally a second sample should be taken prior to moving onto the main yard.
- Horses should have a worm egg count performed and be treated with deworming products targeted to small redworm (cyathostomin) larvae and tapeworms.

**Disease protocol**

Establish a yard protocol that can be followed in the event of an infectious disease outbreak. This will usually follow a traffic light system for sorting and separating horses:

- **Red (high risk horses)** - these are horses showing ANY clinical signs.
- **Amber (in contact horses)** - horses that have been in direct or indirect contact with the red group.
- **Green (no contact)** - horses that have had no contact with the red and amber groups and are showing no clinical signs.

Using this system to manage groups with differing infection risks reduces the potential for continuing infection spread and will shorten length of yard restrictions. Your vet can help to establish a management plan for each group.

These simple steps can make a huge difference to the welfare of your horses and the risk of disease on your yard. If you would like more information or help in developing a biosecurity plan, visit the XLEquine website to obtain your copy of the PLAN, PREVENT, PROTECT guide.
Castration - what to expect

So you have a colt or stallion and you would like to get him castrated as you don’t plan to use him for breeding. If you are not sure when you should do it, what is involved and what to expect afterwards, then please read on!

What age?

- Most colts can be castrated from six months old assuming both testicles have descended into the scrotum. Occasionally they can be done earlier if they have particularly problematic behaviour, but you should discuss this with your vet.

- If only one or no testicles can be felt, you should wait until the colt is a little older to see if they appear. If this has not occurred by around 18 months of age, it is probably not going to happen and it will be recommended that surgery under general anaesthesia is performed to locate the testicles; removing the one descended testicle only should never be done.

- Older stallions can be castrated at any time; you should discuss with your vet whether surgery can be performed under standing sedation or whether general anaesthesia would be more appropriate to reduce complication risks.

Where will it take place?

- Young colts can usually be castrated at home. Depending on their size, behaviour and your vet’s preference, the surgery will either be performed with the colt standing but heavily sedated using local anaesthetic (figure 1) or using a short general anaesthetic.

- If a longer general anaesthetic is required, due to the stallion being older or a donkey or having undescended testicles, this will be carried out at a veterinary clinic with full surgical facilities.

Figure 1. Injecting the testicle with local anaesthetic.
When should it be done?
- We usually recommend castration in the spring or autumn when the flies are not too numerous and hopefully it isn’t too muddy!

What will I need?
- A clean, dry stable, barn or paddock; undercover is appreciated given the unpredictable nature of the British weather.
- Somebody over the age of 18 and capable of handling the colt who is not worried by the sight of blood.
- A headcollar and lead rope.
- Buckets of warm water.
- A small paddock or clean dry area to turn horse out in after surgery.
- The animal’s passport so we can ensure that you have signed Section IX and we can complete any appropriate section to confirm castration.

What does castration involve?
- After confirming two testicles are present and that the colt is healthy, drugs are administered to sedate, or where appropriate anaesthetise, the horse. Antibiotics and anti-inflammatories are also usually administered, as well as tetanus cover if not already vaccinated.
- The testicles will then be scrubbed clean (figure 2) and local anaesthetic injected into each one.
- An incision is made through the skin and into the sac containing the testicle (figure 3).
- An instrument called an ‘emasculator’ is used to remove the testicle. This crushes the blood supply to the testicle preventing bleeding whilst at the same time cutting through tissue to remove the testicle (figure 4). In the majority of simple castrations no suture material is used as it can increase the risk of infection.
- The procedure is repeated on the second testicle.
- The skin wounds are left open for drainage in a simple castration.

What can go wrong?
- Some animals can be challenging to adequately sedate in order to safely perform the surgery. Sometimes it is safer to stop and come back another day rather than fighting to continue.
- Some bleeding is normal; usually this is the result of small blood vessels in the skin and surrounding tissues. Bleeding usually starts as fast drips which then slow and stop altogether within 20-30 minutes of the procedure. Sometimes, as the colt wakes up, blood clots can dislodge and bleeding may start again. Occasionally a bigger vessel bleeds requiring veterinary attention; if you are not sure call your vet.
- Some swelling of the scrotum, sheath and surrounding tissue is normal. Turn out in a small, clean paddock or, if this not available hand walking can help minimise swelling, as will cold hosing of the area. Horses usually benefit from a few days of anti-inflammatories to minimise swelling and discomfort, and encourage movement.
- Some discharge is normal as the skin wounds are left open and part of the healing process means there will be some discharge for the first week or so. If the colt is quieter than usual, showing increased pain, swelling or a yellow, smelly discharge is present, you should contact your vet for advice as antibiotics may be needed. A very small number of castrations can result in chronic infection which requires surgical intervention.

The majority of horses and ponies recover surprisingly quickly and with very few complications. Often keeping them quiet for the first couple of weeks while they heal is the most challenging part. We would usually recommend waiting a minimum of four weeks before introducing to mares as, although they are no longer capable of producing sperm, some sperm can remain in the urethra and there have been cases of pregnancies resulting from early mixing, despite proper castration. Behavioural changes may take several months after castration while testosterone concentrations reduce.
BEVA Trust and BHS castration and healthcare clinics

Julian Samuelson MA VetMB MBA MRCVS
Bell Equine Veterinary Clinic, Kent

After a strategic review in 2014, BEVA Trust, the charitable wing of the British Equine Veterinary Association, has set about reinventing itself and embarked on an ambitious project to facilitate and coordinate BEVA members’ willingness to donate their professional veterinary services towards philanthropic causes.

The Trust is keen to offer its services to UK and overseas projects, and subjects each proposal to a rigorous assessment. The BHS castration and healthcare scheme is a UK based project that the Trust has partnered.

So far clinics have been held in Southampton, Bristol, St Albans, Bradford, Northampton and Tipton, with more to follow later in the year.

By partnering with other charities including, World Horse Welfare, Redwings and the RSPCA, the aim is to reach a population that would otherwise remain out of contact with mainstream veterinary care. Local field agents, using their extensive local knowledge and contacts invite cases to attend each clinic.

All horses and ponies are given a general healthcare check, issued with a passport and microchipped, wormed and given tetanus vaccination, and general husbandry advice is offered where required.

A large number also require castration. As most of the cases are mature adults, they are generally castrated while remaining standing, but after sedation and local anaesthesia has been administered. A small number are anaesthetised, usually if they are either too small to reach under, or one or both of the testicles are difficult to grab, or they are simply too wild to adequately sedate.

By partnering with other charities including, World Horse Welfare, Redwings and the RSPCA, the aim is to reach a population that would otherwise remain out of contact with mainstream veterinary care. Local field agents, using their extensive local knowledge and contacts invite cases to attend each clinic.

Each case is assessed before being discharged, but generally perioperative antibiotics and analgesia are given only.

For each clinic, a local equine referral centre is contacted to make arrangements for any acute (immediate) care in the event of any complications on the day, and arrangements with other local equine practices are similarly put in place for any follow up care required over the following days.

Although castration is a routine procedure, it should not be underestimated and the complications that can ensue are well documented. To date, well over 100 horses and ponies have been castrated at these clinics, and the complication rate has, if anything, been less than expected.

Having participated at most of the clinics and seen first-hand the characteristics of the patients and clients coming forward, it is clear that the filtering process has for the most part worked very well. At the end of each session, there is an overwhelming feeling of achievement and satisfaction felt by all the volunteers, of a job well done, and having made a difference, albeit just one small step – although, as the Chinese philosopher Lao Tzu said, “the journey of 1,000 miles begins with one step...”.
Prior to travel:
Horse check:
Only healthy horses should be transported for long periods of time. You should consider the health of your horse before taking a long journey, along with whether the journey is necessary. Are there any predisposing lameness or respiratory problems that may increase the risk of complications during travel?

If your horse is travelling abroad, either to Europe or further afield, an Export Health Certificate is required, issued by DEFRA and completed by an Official Veterinarian. This inspection helps reduce the risk of transporting horses showing signs of, or testing positive for, contagious diseases. Export abroad should be planned well in advance so the correct certificates can be issued for travel.

Transport check:
Make sure your chosen mode of transport is safe for use. Lorries and trailers should be regularly serviced, and particular attention paid to the flooring. When planning your route, take a note of local veterinary clinics nearby, and have their numbers to hand in case of an accident or emergency en route.

During travel:
Make sure your horse is wearing protective clothing during transport to help protect the most prominent points on his body. Boots, bandages, tail and poll guards are all sensible (figure 1).

Soaking or steaming hay, or feeding haylage will help reduce the amount of dust your horse is exposed to during transport. If your journey is longer than 4 hours, you must allow time to unload your horse to let him graze or eat from the floor and have a stretch of legs (figure 2). This will help improve circulation to the limbs, and aid the mucociliary clearance from his lungs, reducing the risk of pleuropneumonia (shipping fever). Water should also be freely available throughout the journey.

At destination:
Monitor your horse carefully following long distance travel. Taking the temperature and respiratory rates regularly are useful to monitor your horse’s respiratory health. If you have any concerns about your horse you should contact your vet immediately.
Dr Kirstle Pickles BVMS MSc PhD PGCert (Couns Skills) CertEM (IntMed) DipECVIM MRCVS, Scarsdale Veterinary Group

**Question 1:** My horse, a 25 year old gelding, has suffered from urticaria every October/November for three years. Allergy testing has shown he reacts to flies that are around in the summer only! It always starts with lumps and some of them ooze serum, which can be difficult to remove due to his long winter coat, and within two days he develops severe urticaria. After three weeks the urticaria vanishes overnight and he is left with lumps all over his body.

I have tried a course of three antihistamine injections, but after 2-3 days the urticaria returned.

A few weeks ago he was diagnosed with Cushings disease. He has no problems in changing his coat and the urticaria always starts after he has moulted fully.

Do you have any advice?

Urticaria is basically an allergic reaction to something that is not necessarily something in the environment - it could be something the horse eats. If the allergy test was testing antibodies in the blood, that is not reliable in the horse, so I wouldn’t take anything from the results.

Intradermal skin testing is more useful (figure 1), although still not without its problems, with a significant amount of false negative and positive results. If this test has not already been performed, I would recommend referral for this skin testing.

An elimination diet could be tried, consisting of basic hay (single grass type) and chaff, and alter the stable management ideally to rubber matting or paper. After at least two months on this regimen, if clinical signs have abated, you could start reintroducing one thing at a time. These are frustrating cases.

Although short lived, there was a response to antihistamines, so these could be fed daily to reduce clinical signs if the horse is very irritated. Cushings will also mean the horse will have a predisposition to bacterial skin infections so, unless the ACTH concentration is only just above the normal range, I would treat with pergolide and possibly a long course of antibiotics if a bacterial component is proven.

**Figure 1. Intradermal skin testing**

Rebecca Goodwin BVetMed CertAVP(EM) MRCVS, Cliffe Equine Clinic, East Sussex

**Question 2:** I have just had my event horse’s back checked and I’ve been told that he might have kissing spines because he’s very tense. What is the best way to find out whether this is true, and is there a treatment?

Usually we would start by palpating your horse’s back and watching him move on the lunge and ridden. The first test we would perform would be radiographs (x-rays) of the back and this can be very useful. If these are normal your horse does not have kissing spines. If they are moderately or very abnormal, then kissing spines is likely, but not certain. Therefore further tests including nuclear scintigraphy, (bone scanning) or numbing the horse’s back with local anaesthetic (figure 2) and then asking you to ride again are often necessary.

**Figure 2. Injecting local anaesthetic between the vertebrae**

David Rutherford BVM&S CertES(Orth) Dip ECVS MRCVS, Fellowes Farm Equine Clinic Ltd

**Question 3:** My mare seems to be constantly in season now that the weather is warmer and she’s becoming very difficult to ride, especially around geldings. Is there anything I can do?

Hormonal behaviour in mares can start around the beginning of the natural breeding season, approximately March time, and often will finish when the days get shorter in the autumn. The behaviour usually correlates with the mare’s 21 day oestrous cycle. There are various options for controlling oestrous behaviour, anecdotally certain homeopathic supplements may help, although this is not proven. There is a licensed oral medication for postponing oestrus in horses. It is a liquid containing the hormone progesterone and acts to suppress natural hormones and prevent cycling.

Other treatments available include long-acting GnRH analogue vaccinations. This is only available overseas as a licensed product. In the UK it is possible to use a similar gonadotrophin product, off licence. This is administered intramuscularly, repeated at four weeks, then at six monthly intervals. The vaccination can be very effective, but should not be used where breeding is intended in the future, as it is not known how effectively mares may return to normal oestrous activity.

Finally, a rather novel way of stopping oestrus activity involves introducing plant oil or sterilised peanut oil into the mare’s uterus at day ten post ovulation which has also been effective at suppressing unwanted oestrous behaviour.

**Figure 3. Oestrus activity**

This can be very effective but does not give a permanent cure - perhaps lasting six months. Also as the underlying problem worsens (kissing spines is a progressive disease), they may become less effective.

Surgical treatment involves making the space between the bones that are rubbing together wider so that they no longer rub. This may be achieved by removing part of the bones or by transecting the ligament between the bones. The exact method will depend on the individual case. Surgery is usually done standing under sedation and local anaesthetic. It is a considerable undertaking, but does give the prospect of a true cure.
My first patient today is a lovely young horse who spooked at a wheelie bin and fell on gravel damaging her knees. She has been home four weeks following a short stay at Scarsdale Vets, one of my local XLEquine practices, where the wound was flushed and drained (figure 1). Her vet referred her for physiotherapy to assist during the healing stage and then later to help plan her return to work. She is having laser therapy to help speed up wound healing (figure 2), massage and a stretching regime to help prevent any restriction in joint mobility after the wound has healed.

Next I am back on the road, heading to a dressage yard with horses ranging from youngsters to advanced horses. They are checked every six weeks because of the intense and repetitive nature of their work. It is important to keep an eye on their muscle development and any performance issues that occur (figure 3). Working closely alongside their vet means issues can be identified and managed before they manifest into a real problem.

Now on to Bennett Equine, a specialist rehabilitation yard. I visit the yard every fortnight, to see ongoing rehabilitation cases, as well as assessing new referrals so I can work with them throughout their recuperation. Today there are six horses on the list for physiotherapy, all recovering from different injuries, from interspinous ligament desmotomy to removal of a bone chip in a fetlock joint. Horses recovering from lameness require physiotherapy, not only to help them with the diagnosed problem, but also to identify and manage other areas of pain, tension or stiffness they may have caused themselves by compensating for the original problem.

As a physiotherapist we have many treatment techniques up our sleeves! These include electrotherapies to promote healing, manage pain and improve muscle function, as well as ‘hands on’ treatments such as massage, myofascial release, trigger point techniques, spinal reflex work, joint mobilisation... the list goes on! However, treatment doesn’t stop when I leave the yard. Giving the owner ridden exercises to build up a specific muscle group, baited stretches to help a tight area (figure 4) or pole work to increase joint flexion (figure 5) means that between appointments the owner can continue the horse’s rehabilitation or improve its performance.

My day finishes with returning phone calls to new clients, ringing vets for updates on shared clients. Finally, it’s back onto the computer, sending reports for today’s clients and referral forms to vets to obtain consent before I see my next new set of patients.

My day starts bright and early in the office! By office I mean my 4x4 vehicle packed full of waterproofs, my ‘satnav’, electrotherapy equipment, notes for each patient and two terriers. On average I see eight to ten horses a day; a mixture of routine cases and new veterinary referrals. I also travel with the competition horses I work with to events around the country and abroad.
Hot Potato Topic:
Sore back - who should see your horse?

Back pain is extremely common in horses but it is often difficult to accurately diagnose the cause. Specific clinical signs are often lacking and it is therefore important to rule out causes of lameness and poor performance which may be leading to secondary back pain before coming to a diagnosis of primary back pain (figure 1).

Because of the frequent difficulties in giving a highly specific diagnosis in back pain cases, this has paved the way for many non-vets to provide services offering a great variety of therapies with no veterinary involvement. I believe that the vet should always be involved in the initial diagnostic process, but treatment plans in back pain cases should never exclude appropriately trained, qualified and insured paraprofessionals, including ACPAT registered physiotherapists, chiropractors, osteopaths and sports and remedial massage therapists. Each offer varying forms of therapies which may be beneficial depending on the cause. Please, always be wary of the untrained, unqualified and uninsured individuals offering diagnostic information.

From the point of view of a saddle fitter, here is my opinion. If your horse hasn’t seen a saddle fitter in the last six months you are overdue an appointment. It’s entirely possible that an ill-fitting saddle can cause some superficial soreness. You might have felt a difference in the balance of your saddle while you have been riding. If you can feel it your horse will certainly feel it!

Ensuring the saddle has been regularly checked and fitted correctly is important.

A good check-up will hopefully rule out any obvious root causes. Assuming your saddle hasn’t been a contributing factor, I recommend picking up the phone to your vet. Communication is key, and your horse’s welfare and soundness is the main focus for all the professionals who work together with you and your horse. If your saddle has been a contributing factor, it is still worth ringing your vet to discuss the options of soft tissue treatments or physiotherapy, as these go along with the correctly fitting saddle to take your horse forward comfortably.

With any problem in a horse, a vet should be consulted in the first instance as no other practitioner can legally treat a horse without veterinary consent. I have a good working relationship with many local vets and at the vet’s discretion I will often be the first to see a horse with ‘a sore back’ particularly if it is a horse I see routinely.

Once the vet has given consent, choosing a ‘Back Person’ can be a minefield! Unlike ‘Veterinary Surgeon’ the title ‘Animal, Equine or Veterinary Physiotherapist’ is not protected meaning anyone can use it regardless of their qualifications.

I am an ACPAT Physiotherapist. ACPAT is the Association of Chartered Physiotherapists in Animal Therapy. All ACPAT members have completed rigorous training to be qualified as Chartered Physiotherapists before training to be Veterinary Physiotherapists. We are regulated by a governing body and required to do a set amount of CPD every year to maintain high standards of practice. By using an ACPAT Physiotherapist you can be assured they have a high standard of training, expert knowledge, full insurance and are up to date with current research and best practice. They will work closely with your veterinary surgeon to ensure your horse receives a high level of care.
ORTHOPAEDIC INJURY

Cathy had always longed to breed a foal and due to her unfortunate ill health this dream became even more important to her. She was overwhelmed therefore, with the birth of a fit, well bred filly foal ‘Ruby’ in 2012.

Ruby was a well-developed, healthy foal and lived what appeared a relatively normal life for her first year. Unfortunately, in 2013 Cathy noticed that Ruby had started to appear uneasy on her limbs, particularly her hindlegs. She called her local vet to assess the horse, who immediately recognised that Ruby was showing signs of weakness and ataxia (neurological weakness) whereby the limbs were not co-ordinated. Ruby was X-rayed and diagnosed with cervical compressive myelopathy or ‘Wobblers syndrome’. This is a developmental abnormality where the bones of the neck develop poorly and compress the spinal cord; therefore the control of movement is severely compromised and the horse becomes wobbly. Due to a very poor prognosis in the vast majority of cases, most owners elect to have their animal euthanased. The vet knew how important Ruby was to Cathy and how her birth had helped her recover from her own illness, so he brought to Cathy’s attention that occasionally some horses may be appropriate candidates for surgery. Cathy was very keen to try this option, and admitted the filly to Clyde Veterinary Group Equine Hospital for further investigations to determine if surgery was an option.

Ruby underwent a myelogram whilst under general anaesthetic which recognised that there was compression at two sites in the neck between the fifth (C5) and the sixth (C6) and the sixth and seventh (C7) cervical vertebrae (figure 1). Andrew McDiarmid consulted with members of the Liphook Equine Hospital and the decision was made to undertake the very risky neck fusion surgery.

The three hour operation to insert two stainless steel Bagsey baskets between the two affected sites C5-C6 and C6-C7 was undertaken without major complications (figure 2) and more critically, Ruby stood up in the padded recovery room without issue. Ruby returned home for a prolonged period of rehabilitation over the next six months (figure 3) and now three years later, she lives a relatively normal life with the ataxia barely detectable. Indeed, to the untrained eye she could be observed as a normal horse grazing in the field.

Thankfully, Cathy’s health has also fully returned and she now has the pleasure of having Ruby at home behaving like any other horse of her age.

Figure 1. Spinal cord compression seen using dye around the spinal cord (myelogram)

Figure 2. Intraoperative X-ray of the second basket being placed in the neck

Figure 3. Ruby’s neck X-ray 6 months after surgery
Welcome...  
TO THE SUMMER 2016  
XLEQUINE PONY PAGE

Pony Club camps are coming!  
What you need to know...

So finally we can put our wellies to bed as summer is coming! This can only mean one thing, summer holidays and Pony Club camp. The best way to ensure fun for both you and your pony is to make sure that you are fully prepared nice and early. There are lots of different things to think about when preparing your pony for a fun packed week!

Is your kit ready?
- Even if you are doing daily camp rather than staying away, ensure you write a list of what you need for both you and your pony! Along with packing both your pj’s don’t forget a first aid kit for both of you in case of any accidents.

How’s your tack?
- Be sure that all your tack is clean and well fitting before you go to camp; not only will you get extra points for shiny clean tack but it will also reduce the risk of your pony getting any rubs! It’s also important to check it all fits properly to ensure that your pony is not uncomfortable whilst being ridden, which could cause them to be naughty!

Is your pony up to date with their vaccinations?
- Pony Club requires ponies attending to be vaccinated for both influenza (flu) and tetanus. Horses and ponies need to have at least the first two vaccinations of a start up course, to be allowed to go to camp and these have to be four weeks apart so don’t leave it too late!

Is your pony fit enough for camp?
- A week of playing games and having lessons can be great fun but don’t forget to ensure your pony is fit enough for all that exercise! Start a fitness plan and gradually increase your pony’s exercise to ensure they are ready.

Once you know that you and your pony are prepared, your tack and midnight feasts are all packed, then all that is left is to grab your pony, meet up with your friends and ENJOY CAMP!!!

Kassie Hill FdSc RVN REVN  
Cliffe Equine Clinic

www.xlequine.co.uk
Summer is a fun time to work and play with our equine friends. Here are some XLEquine clients showing us how they enjoy the summer with their horses and ponies.

Your XLEquine veterinary teams will be focussing on preventative health care with our Picture of Health campaign. We want to help you keep your horses fit and healthy so that you can enjoy them through the summer months and beyond. We are here to help you better understand about worming, dentistry, foot care, infectious diseases and lots more.

In our autumn issue of Equine Matters we would like to see photos of you and your horses going "Back to School". If you would like to see yourself here, send your photos to equinematters@xlvets.co.uk with your name and a caption for your photo and you could win an XLEquine first aid rucksack!
EXCELLENCE IN PRACTICE

XLEquine - Better Together

The members of XLVets have worked hard to create what they see as a model of how practices can work together, sharing the latest ideas and passing on savings and joint expertise to clients.

www.xlequine.co.uk

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