

Our community of independent equine practices



1 Northvet Veterinary Group
Kirkwall, Orkney
Telephone: 01856 873403

2 Donald S McGregor and Partners
Thurso, Caithness
Telephone: 01847 892387

3 Clyde Veterinary Group
Lanark, Lanarkshire
Telephone: 01555 660000

4 Scott Mitchell Associates
Hexham, Northumberland
Telephone: 01434 608999

5 Seadown Veterinary Group
Hythe, Hampshire
Telephone: 023 8084 2237

6 Paragon Veterinary Group
Carlisle, Cumbria
Telephone: 01228 710208

7 Millcroft Veterinary Group
Cockermouth, Cumbria
Telephone: 01900 826666

8 Parklands Veterinary Group
Cookstown, Northern Ireland
Telephone: 028 867 65765

9 North West Equine Vets
Rathmell, North Yorkshire
Telephone: 0808 168 5580

10 Bishopton Veterinary Group
Ripon, North Yorkshire
Telephone: 01765 602396

11 Wright & Morten
Macclesfield, Cheshire
Telephone: 0845 8330034

12 Scarsdale Veterinary Group
Derby, Derbyshire
Telephone: 01332 294929

13 Midshire Veterinary Group
Nuneaton, Warwickshire
Telephone: 02476 384064

14 608 Farm & Equine
Rowington, Warwickshire
Telephone: 01564 783404

15 Fellowes Farm Equine Clinic
Huntingdon, Cambridgeshire
Telephone: 01487 773333

16 Belmont Vets
Hereford, Herefordshire
Telephone: 01432 370155

17 Buckingham Equine Vets
Milton Keynes, Buckingham
Telephone: 01908 560789

18 Hook Norton Veterinary Group
Banbury, Oxfordshire
Telephone: 01608 730085

19 Larkmead Veterinary Group
Wallingford, Oxfordshire
Telephone: 01491 651479

20 Cedar Veterinary Group
Alton, Hampshire
Telephone: 01420 82163

21 Cliffe Veterinary Group
Lewes, East Sussex
Telephone: 01273 473232

22 St Boniface Veterinary Clinic
Crediton, Exeter
Telephone: 01363 772860

23 Torch Farm & Equine
Ilfracombe, Devon
Telephone: 01271 879516

24 Calwetton Veterinary Group
Callington, Cornwall
Telephone: 01579 383231

25 Stanley House Veterinary Group
Colne, Lancashire
Telephone: 01282 868748

Equine matters

SPRING 2019

Suspensory ligament strains

The signs, management and treatment



WIN!
£50.00 Joules
Gift Card...
See page 21 for details

Equine insurance

All you need to know about insurance for your horse



Castration

How this procedure is carried out and the reasons why



Moody Mare

Understanding why a horse's behaviour changes



Condition scoring

How to fat score your horse to maintain body weight

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**.

T: 01228 711788 www.xlvets-equine.co.uk



welcome

the editor

Hello and welcome to the Spring edition of Equine Matters.



I sit down to write my welcome to this Spring edition of Equine Matters at the end of a busy Friday. Traditionally a quieter time of year for us equine vets, it would be fair to say that this past February has probably been the busiest most of us have experienced, all thanks to three little letters: flu. With many equestrian associations advising that horses which had not been vaccinated in the last six months receive a booster injection, vets up and down the country have been doing their best to ensure we can protect the UK horse population as much as possible. The cases of Equine Influenza have pushed infection control to the forefront of owners' minds and whilst the situation appeared to be settling down at the time of writing, we should take this opportunity to brush up on best practice! Plan Prevent Protect is a guide produced by XLVets in conjunction with the Animal Health Trust to give horseowners and yard owners an introduction to the contagious diseases that you should be aware of, as well as helping to form a plan for your individual yard to keep your horses as safe as possible. Ask your vet about getting a copy or visit www.xlvets-equine.co.uk

Susan Donaldson *Clyde Vets*

contents

03

What can we learn from a blood test?

Alastair Todd of Kernow Farm & Equine describes the wide range of things that vets can learn from a blood sample.

05

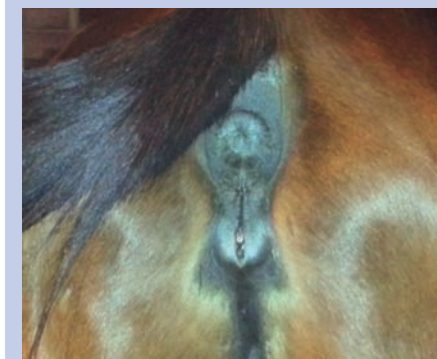
Castration - the nuts and bolts

Most castrations happen in the spring so Andrew Robinson from Millcroft Vets explains the procedure and what to expect.

13
Infertility

Why is my mare not in foal?

Andrea Kilduff-Taylor of 608 Equine & Farm explains some of the more common reasons why a mare fails to conceive.



08

Equine insurance explained

Robert Peckham of Paragon Veterinary Group provides some sound advice on what should be considered when thinking about insuring your horse.

11

Euthanasia: What to expect

Putting an animal to sleep is an emotional experience for everyone involved, Rosie Alcorn from Wright & Morten gives some insight into how it happens.

15

Desmitis - suspensory ligament strains

David Rutherford of Fellowes Farm Equine details the diagnosis, treatment and prognosis for ligament injuries.

Spring Edition 2019

17
Behavioural problems

Managing the moody mare

Karl Holliman from Cliffe Equine describes the causes of behavioural changes in mares and how your vet can help.



19

Condition scoring your horse

Sara Fleck of Bishopton Equine explains a couple of ways to body condition score your horse.

FACEBOOK COMPETITION
Page 21

XLVets Equine is a group of 25 equine practices spanning the length and breadth of the UK. We work together to share experience, knowledge, ideas and skills in order to define and deliver the highest standards of equine health, care and welfare.

What can we learn from a blood test?



Alistair Todd
BVSc MRCVS
Kernow Farm &
Equine

Taking blood is well tolerated by most horses and is generally a safe procedure.

Blood tests have formed part of the investigation of a large number of illnesses, diseases and injuries for a long time. The number of tests available is continuously expanding and their accuracy improving, making analysis of blood a very useful diagnostic tool. Sometimes blood results will yield a diagnosis and in other situations the information they provide helps to build an overall picture of what may be going on.

Taking blood is well tolerated by most horses and is generally a safe procedure (Figure 1).

Common uses of blood testing

1. Investigating illness

Many conditions will affect red and white blood cells, or circulating chemicals and enzymes. Blood tests can help differentiate diseases with similar clinical signs, thus ruling problems in or out, and help reach a diagnosis.

2. Monitoring response to treatment

After diagnosing an illness, the response to treatment can be monitored by repeating the tests, to ensure that the condition is being treated effectively.

3. Screening normal animals

Healthy animals can be screened to pick up early signs of a problem. This is particularly useful in older animals or those which may have been exposed to a contagious disease but might not yet have developed any clinical signs.

4. Pre-purchase examination (PPE)

Blood samples are collected at the time of the PPE then posted and stored in a special facility for six months. If a problem such as lameness arises after purchase then the sample can be tested for a wide range of substances including pain-killing drugs and sedatives. In certain circumstances these tests may be performed immediately following the examination and it's important to tell the vet if the results are required quickly.

5. Confirming exposure to infectious diseases

Exposure to diseases such as Equine Influenza and *Streptococcus equi* (Strangles) can be confirmed or ruled out. Some yards will request



Figure 1: Blood taken from a horse

this for new liveries prior to their arrival. Also, prior to breeding, blood tests may be necessary as certain infectious diseases are sexually transmitted and can affect mare and stallion fertility, as well as causing illness.

6. Confirming the health status of an animal before export/import

Entry into many countries is dependent upon a clear disease screen. Blood tests are used to rule out serious infectious diseases and maintain the disease-free status of a country. The requirements will vary dependent on the countries involved.

7. Monitoring a patient prior to and during a general anaesthetic

Bloods are often taken preoperatively as a screen to pick up any underlying disease. Blood samples can also be used to monitor parameters relating to patient safety such as oxygen and carbon dioxide levels whilst under anaesthetic.

8. Identification of banned substances.

Professional equestrian competitions, including racing, monitor equine athletes for the presence of prohibited, performance enhancing drugs in the urine and blood to ensure a level playing field.



Figure 2: Some in-practice laboratory equipment can run several tests simultaneously

What do we measure?

1. Blood cells

The number and concentration of red blood cells, along with several types of white blood cells can be measured. This helps assess whether disease or illness is present, as well as the severity.

2. Blood chemicals

A. Enzymes/proteins

Injured, inflamed or diseased organs and tissue will release many different chemicals into the bloodstream. Any rise or fall from normal levels can be measured and may be used to determine the nature, extent and severity of a disease process.

B. Hormones

Many different hormones can now be measured. One of the most common things we test for is a hormone called adrenocorticotrophic hormone (ACTH), the levels of which will be elevated in animals with pars pituitary intermedia dysfunction (PPID), also known as Cushing's disease. Other hormonal tests include anti-mullerian hormone (AMH)

to identify rigs, i.e. a male horse with hidden testicle(s), and certain ovarian tumours in mares.

C. Pharmaceuticals

During vettings and among competition horses, drugs such as painkillers, anti-inflammatories, tranquillisers and other performance enhancers can be detected, even at very low levels.

D. Antibodies

A horse will produce antibodies as part of the immune system's response to an infection caused by a virus or bacteria. We can test for the presence of specific antibodies against many pathogens including *streptococcus equi* (Strangles), Equine Viral Arteritis (EVA) and Equine Herpes Virus (EHV) to name but a few.

E. Bacteria and viruses

As well as detecting antibodies or the horse's immune response, certain infections can be confirmed by identifying the actual organisms causing the disease.

What happens to the samples?

Once collected, the samples can be analysed in-house (at the practice) or sent to a veterinary laboratory. Some tests are simple and quick to run, while others need to be carefully prepared and it may take several days or sometimes longer for results to become available.

In-house laboratories

Many practices have blood machines to run a range of tests (Figures 2 and 3). The benefit is that results are usually available the same day.

External laboratories

There are numerous commercial laboratories, often offering a significantly more extensive range of tests. These generally take longer to get the results depending on the particular tests requested.



Figure 3: A blood centrifuge separates whole blood into its component parts

As you can see there is a wide range of circumstances where blood testing is necessary or useful. Speak to your vet if you think a blood test may be useful for your horse.

Due to changes at their practice, Kernow Vets are no longer members of the XLVets Equine community.

Castration - the nuts and bolts

MILLCROFT
VETERINARY GROUP



Andrew Robinson
BSc(Hons) BVMS MRCVS
Millcroft Veterinary
Group

There is a saying that ‘accidents can happen’ but many can be prevented with a few simple precautions. That would certainly be the case if you keep a male horse entire amongst a group of females.



Unless you intend to breed, keeping a stallion around is often not a good idea - special facilities and handling equipment are generally required. So, in most cases, the preferred option is to castrate (or geld) the colt. This can be done at any age from six months up but it is often easier once the horse is used to being handled.

Before beginning the procedure the veterinary surgeon will confirm that there are two testicles present in the scrotum. Assuming that everything is present and correct, the operation can be performed at either the home yard or the practice dependent on the facilities available. If one or both testicles are not able to be located in the scrotum, a much more complicated operation would likely be required to remove the retained testicle(s).

If the colt is to be castrated at home it is particularly important to bear in mind that this is a surgical procedure. The area where the procedure is to be performed should be as clear of dust and dirt as possible with clean bedding,

good lighting and of a suitable size. If the castration is to be performed with the colt under anaesthetic and not standing, soft flooring is desirable - we will discuss the merits of a general anaesthetic versus standing sedation later. Some warm water in a clean vessel is also required to clean the skin of the operation site prior to the procedure.

Ideally the horse should be fully vaccinated against tetanus to minimise contracting this infection in the post-operative period. If they have only had their primary course, the second injection should have been two weeks before the scheduled day of the procedure. Most castrations are performed in the spring because cold weather can delay wound healing, and in hot weather flies can cause contamination of the wound post-operatively. Your vet will discuss their preferred method for the operation but this will generally fall into one of two categories: standing castration under sedation or giving the horse a full anaesthetic which will result in the horse lying down (Figure 1).

Both methods have their pros and cons. Standing castrations avoid the need for a general anaesthetic and the horse lying on the floor, but is an open procedure where the blood vessels are not tied off (ligated). The knock down procedure involves giving the horse a general anaesthetic and, once he is lying down, removing the testicles then ligating (tying off) the blood vessels with suture material. In some cases the skin may be sutured closed. The advantage of this is that a ‘closed castration’ can be completed where the testicles are left within their sac (tunic). This technique and the ligating of the blood vessels reduce the risk of two of the serious potential complications of castration, namely major bleeding and evisceration, where a piece of gut can protrude from the abdomen and out of the castration wound.

Regardless of how the castration is to be performed, initially the vet will administer sedatives, via the intravenous route, and local anaesthetic (Figure 2). These drugs work much better if the horse is not stimulated by lots of noise so a quiet environment is preferable. A busy yard or having a mare near a young colt may cause it to fight the sedative making the procedure more dangerous for both the colt and the vet. If the patient is to have a general anaesthetic, once he is asleep, a towel may be placed over the eyes to prevent light stimulation and the head collar removed to avoid pressure on the side of the face and reduce the chances of paralysing the facial nerve. Prior to the procedure, anti-inflammatory drugs and antibiotics will also be administered.

The site of the incision is thoroughly cleansed with antiseptic and surgical spirit prior to local anaesthetic being injected directly into the testicles and into the skin (Figure 3).



Figure 3: Scrubbing the scrotal region prior to surgery



Figure 1: Castration can be carried out either standing or lying



Figure 2: Injecting the testicle with local anaesthetic

The skin is then cut and the testicles gently extracted. An instrument called an emasculator (Figure 4) is then used to simultaneously crush the spermatic cord, ligament and blood vessel and cut the testicle off. Depending on the technique used, a ligature of dissolvable suture material may or may not be placed around the cord. The emasculators are generally held in place for a few minutes. This procedure is repeated for the second testicle.

Food should be withheld for a few hours until the horse is fully awake and owner should also monitor carefully for bleeding from the wound (Figure 5). A few drops are fine and often expected, but if this turns into a steady stream then veterinary attention should be sought immediately. The wound should also be examined for any tissue protruding from the incision. In most cases, it is abdominal fat but very occasionally may be the intestines (evisceration) which is a potentially fatal emergency situation.

It is not uncommon for there to be a degree of swelling of the sheath in the few days after the procedure but this can usually be managed with plenty of movement, either from hand walking or turnout after the initial twenty-four hours. If at any stage there is any other discharge such as pus from the wound or the horse goes off their food, becomes lethargic or walks with a stiff gait, veterinary advice should be sought. It may just be a case of a longer course of antibiotics or anti-inflammatories are required, however, occasionally the infection can become quite nasty and require a further operation to remove infected tissue - this is referred to as a 'scirrhus cord' and can occur months or even years after the operation.

'Food should be withheld for a few hours until the horse is fully awake and owner should also monitor carefully for bleeding from the wound'



Figure 4: Using the emasculator during a standing castration

Recovery

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.



Figure 5: Most horses recover well but closer monitoring is advised after the operation

Equine insurance explained



Robert Peckham
BVM BVS MRCVS
Paragon Veterinary
Group

'Do I need to insure my horse, what are the options, and will the insurance company pay out?' These are three of the common questions we hear as vets. In this article we look at equine insurance in more detail.

Do I need to insure my horse?

When making your decisions about insuring your horse you should carefully consider the reasons why you want it and what type of cover you may need. Remember on average you may spend more on your policy than you actually receive back in claims, however it is the peace of mind that you are financially covered if something unexpected happens.

Public liability insurance is essential. It is inexpensive, yet if your horse injured a member of the public, it could cost millions. Some organisations such as the British Horse Society often include a level of insurance cover within the membership package or you may be covered within your own house insurance.

With other types of insurance there is more to consider. Think about what is important for you and when you might find an insurance pay-out most helpful. For example, if the monetary value of your horse is high and the horse is an investment, all-risk mortality and loss of use cover can be very important. Policies covering veterinary fees may be more useful when the cost of unexpected treatments and investigations are more of a concern, especially when fees can run into the thousands.

'When making your decisions about insuring your horse you should carefully consider the reasons why you want it and what type of cover you may need.'



Types of insurance

Public Liability Insurance

This covers claims against yourself for any damage that your horse may cause to another person.

All-Risk Mortality

This covers the value of a horse if it dies or has to be put down from a severe injury or disease and needs immediate euthanasia for a condition which meets the British Equine Veterinary Association (BEVA) guidelines for immediate destruction.

Loss of Use

This covers the value of a horse if it is unable to be used for its insured purpose as a result of an injury or disease.

Vet fees

This covers a horse for veterinary treatments up to a specified limit. Cover is often limited to twelve months from the start of a condition being claimed for.



Catastrophe Insurance

This is a type of vets' fee insurance which only covers serious conditions, such as wounds, colic and septic joints.

What to look out for when choosing your policy

- Fixed and variable excess
- Limit per condition
- Exclusions
- Complementary treatments, such as farrier and physiotherapy services
- Company reviews



‘It is important to shop around and look at different policies. Insurance brokers and agents can be especially useful if you have a complex situation.’

How do I select an insurance company and the correct policy?

It is important to shop around and look at different policies. Insurance brokers and agents can be especially useful if you have a complex situation.

The most important thing to check is the maximum limit of cover **per condition**. If you want the policy to cover surgical conditions such as colic, a minimum limit of £5,000-£7,000 is advisable.

It is prudent to check the excess on a policy too; this being the amount you pay in the event of you making a claim. There can be fixed and variable excesses. A fixed excess is an amount, usually around £150, which is payable per condition, while a variable excess is a percentage of the final claim. While policies with higher excesses are cheaper, you will need to ensure that you are able to afford them. In particular with a variable excess, how much would you need to pay if you had to make a maximum claim? Some policies may only pay for a percentage of livery fees should your horse require a stay in a hospital.

Other things to look for in a policy are cover for ‘extra’ or ‘complementary’ treatments such as remedial farriery. Additionally check if there are any general exclusions identified within the policy such as dentistry or behavioural issues.

Once you have found a policy you are happy with, you need to be honest and open with the insurers about your horse, specifically what it will be used for and if the vet has ever diagnosed any disease or condition, irrespective of severity. If you are selective with the information you provide, you may find that any future claims will be unsuccessful, leaving you to cover the bill. Some companies will request a vetting prior to insuring your horse and for high value horses, X-rays of joints may be required.

Finally before taking out a policy, have a read of the small print. While this can be tedious, it is better to see what exactly the policy does and does not cover before committing to it.



Will my insurers pay out?

It is impossible to answer this question definitively. However, if you have met all the conditions of the insurance policy it would be expected that the insurance company will settle the claim. A quick look at reviews of horse insurance companies may reveal some to be easier than others to deal with. As with most things in life, you often get what you pay for; if a quote is substantially cheaper, look carefully - there may be a reason why. **Exclusions** are a common reason for claims to fail. These are when a company will not insure a certain body part or condition. Many exclusions are due to **pre-existing conditions**. These are conditions that started before you took out or renewed the policy.



It doesn't matter that you may not have claimed for the pre-existing condition so it is important to notify your insurers of any veterinary treatment as it arises. Furthermore, most insurance companies will require a full medical history from your vet at the time of making a claim.

All-risk mortality claims need a special mention. It is worth reading the BEVA mortality guidelines prior to taking out insurance, which state:

‘That the insured horse sustains an injury or manifests an illness or disease that is so severe as to warrant immediate destruction to relieve incurable and excessive pain and that no other options of treatment are available to that horse at that time.’

The above describes some very specific circumstances where mortality is covered: there are many scenarios which are likely not to be covered, such as chronic conditions where a horse is electively euthanased. Even in situations where a horse needs to be immediately euthanased, in the absence of a diagnosis, the insurance company is likely to require a post mortem examination to be performed.

These can be tricky claims to navigate as owners often assume that a claim will be possible regardless of the reason for euthanasia and this is not the case.

In summary

Insurance can be an extremely useful purchase for you and your horse, and can help you financially during difficult times. However it is important to understand what you want from a policy and then to find a policy which fulfils these needs.



Euthanasia: What to expect



The word euthanasia originated from the Greek, meaning 'good death' and is the technical term used by vets for putting an animal to sleep. As a vet, we perform euthanasia to relieve or prevent pain and suffering, with a death that is as stress free as possible for both horse and owner.



Rosie Alcorn
BVSc MRCVS
Wright & Morten



Saying goodbye to your horse at the end of a long struggle or in an emergency can send many owners into an emotional whirlwind, often leaving people feeling like a large place in their heart cannot be filled. It can be one of the most difficult times to talk about and deal with, both before, during and after it has happened. Despite dealing with euthanasia on almost a daily basis I doubt there is one member of the profession who can say that each animal put to sleep doesn't affect them. After all, most of the veterinary profession have their own pets and so will often have first-hand personal experience of what you are feeling.

Unfortunately, there is no getting away from the fact that euthanasia is never going to be easy for any owner. However, as with many things, being prepared for what is going to happen can make it a lot less stressful. The rest of this article will discuss some practical tips on what to expect.

Be prepared for the end at the beginning

It's often not a nice thing to think about, but it helps to know what you are going to do with your horse once they have been euthanised. If you own your own land it may be possible to arrange for someone to bury your horse at your premises. You should check on your council website for guidance on burial restrictions with regards to

waterways. If you are not a land-owner it will be necessary to arrange for someone to collect your horse. Your vet should be able to provide you with contact numbers. Make sure that the area where your horse is to be euthanised is easily accessible. Have a plan in place in case of an emergency euthanasia - it's not a nice thing to think about but it makes a very stressful situation that little bit easier if you already know what you would do.

Arrange for someone to be there for you

No matter how well prepared you are, I am yet to meet an owner who has remained dry eyed at the end of having their horse put to sleep. Try to have someone there for you, even if it's just to drive you home or make you a cup of tea. Having a close friend or partner around can really help.

Consider how you are going to have your horse put to sleep

In the case of an elective decision for euthanasia, you may have the choice between this being performed by injection or by gun. Be mindful that most vets do not carry guns with them routinely and so in an emergency situation, this may not be an option.

Be prepared that you are likely to be asked to sign a consent form

As a vet it often seems a very insensitive thing for us to have to ask, but legally we need to obtain permission. In some cases, verbal permission may be sufficient. If it is an elective euthanasia, it is worth asking the practice to send this out in advance so it is one less thing to think about on the day.

Knowing what actually happens

Whether euthanasia is elective or in an emergency your vet will normally follow a set routine. Nowadays the most common method of euthanasia is by injection. The most commonly used drug is called 'Somulose'. Your vet will most likely place a catheter in the jugular vein and then sedate your horse heavily to ensure they are relaxed. At this point your horse will appear very sleepy. The catheter then allows safe and easy administration of Somulose over 10-15 seconds. Once the injection has been given, your vet will take your horse from you and apply gentle pressure to their shoulder to help the horse to the ground where possible. After a couple of seconds, breathing will stop and their eyes will remain open. Following this your vet will listen to the horse's chest with a stethoscope for a few minutes to ensure that the heart has stopped. The above is the perfect example of what should happen. In reality it doesn't always look just as smooth. Older horses often struggle to bend their knees and hocks and often appear to just 'tumble' over. Some horses with neurological or spinal problems will often wobble and appear very unstable before going down. Even the most straightforward euthanasia can have problems. Try to remain calm. Your vet will know what they are doing and deal with the situation appropriately. It's often good to remember that the horse beginning to go down is a result of it losing consciousness and so it will not be aware of what is going on.

Other things to watch out for are involuntary movement of muscles after euthanasia. The body releases the cells' energy which can cause muscles to jolt and spasm involuntarily for a few minutes



after death. This happens quite regularly so be careful to stay out of the way of the horse's legs; staying close to the head is usually best. Horses may appear to gasp and take big breaths (agonal gasping), this is actually gas being released due to changes in pressure in the chest and not actually a true breath.

As most vets do not carry a gun, euthanasia of this type is usually carried out by a huntsman or slaughter-man. When performed properly it is a very quick and pain free death. It is worth having a chat with your vet as to who they would recommend and to provide you with contact details. In some situations, such as a horse with a severe needle phobia,

it may actually be a much less stressful option in an elective euthanasia. The DEFRA website provides some guidance on the safe and legal disposal of fallen animals.

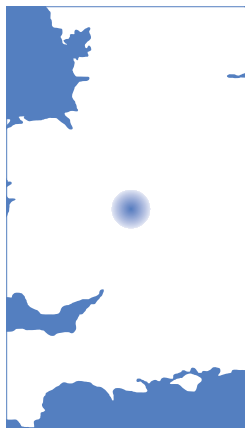
Euthanasia is never going to be an easy experience but with a little knowledge of what to expect it can make things just a little easier.

Infertility - why is my mare not in foal?

One of the great pleasures of horse ownership can be breeding from your own mare. Imagine breeding a foal with your mare's lovely temperament but with improvements in conformation contributed by the stallion.

608

EQUINE & FARM VETS



Andrea Kilduff-Taylor
MA VetMB MRCVS
608 Equine & Farm

However, sometimes things aren't so simple and we can be left frustrated when we can't get a mare in foal. This article will explore some of the reasons why we can struggle to achieve a successful pregnancy in a mare and what we can do about it.

Age

As our horse population is living longer, and therefore competing for longer, we often find ourselves wanting to breed from older mares. Unfortunately the fertility of a mare starts to decline quite early, at around 15 years. Here are some of the relevant factors:

- Sagging of the uterus and vulva
- Tight cervix (if maiden mare)
- Decreased egg viability
- Uterine cysts
- Degeneration of the uterine lining

Some of these factors cannot be addressed and sometimes we have to concede that we cannot breed from the mare. Endoscopy (where a camera is passed into the uterus) allows us to remove uterine cysts and mares can often go on to be bred successfully if this is their only issue. If a biopsy of the uterine lining is taken then we can assess it under the microscope and decide on the likelihood of pregnancy. If having a foal from this mare is very important, in some cases treatment can be attempted to improve the uterine lining.

When planning for the future, it is beneficial to think about breeding from mares when they are young adults. Technology such as embryo transfer can allow us to have our cake and eat it, as we can breed from competition mares without needing them to carry their own foals.

Infection and inflammation

Uterine infections and inflammation create a poor environment for an embryo. These issues can arise due to entry of bacteria into the uterus during breeding, or due to problems with the seal between the uterus and the outside.

- **Vulva:** Older mares and sometimes very fit (or underweight) younger mares can have a sunken vulva (see Figure 1). This means the vulva doesn't seal properly and air and faeces can be sucked in.

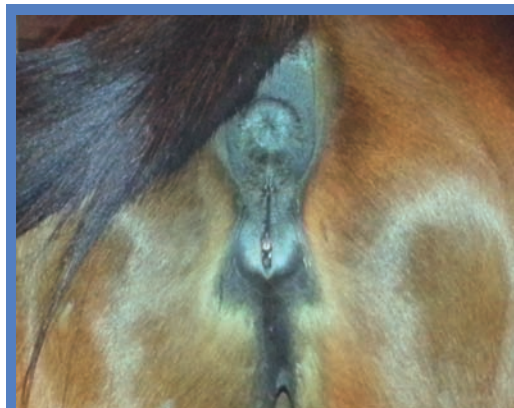


Figure 1: An underweight mare with a sunken vulva. Note the anus is positioned further in than the vulva

- **Cervix:** This is a very changeable structure which opens when the mare is in season and closes between seasons. This opening up allows drainage of fluid from the uterus after breeding. Some older maiden mares (mares which haven't been bred before) have a tight cervix which doesn't open properly and so traps fluid in the uterus.
- **Sagging of the uterus** often happens in older mares and can cause fluid to pool rather than draining out.
- **Urine pooling** is also related to sagging of the uterus - urine goes into the vagina instead of exiting, causing inflammation and bacterial contamination.

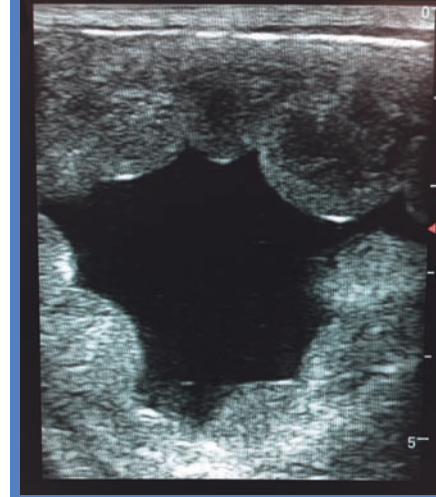


Figure 2: An ultrasound picture of the uterus containing an abnormal amount of fluid (black)

Is there anything we can do about these problems? **Absolutely;**

- **Post breeding endometritis (inflammation of the uterine lining):** All mares will have a degree of reaction to semen entering their uterus, but some will react more than others (see Figure 2). If this is not dealt with, when the embryo enters the uterus it cannot survive. This is why vets may 'wash out' a mare with sterile saline after they have inseminated her and give her hormones such as oxytocin to cause her uterus to contract and expel fluid.
- **Sunken vulva:** A minor operation called a Caslick's procedure can be carried out to stitch together the upper part of the vulva. This mimics the natural seal of the normal vulva and stops air from entering.
- **Cervix:** Mares with a tight cervix can benefit from multiple washings of the uterus and sometimes a catheter can be placed to allow fluid to drain out (see Figure 3). This issue normally resolves once the mare foals.
- **Sagging of the uterus:** This is difficult to resolve but some vets have reported positive results using acupuncture.
- **Uterine infections:** These can usually be treated with antibiotics, which are normally put into the uterus itself.

Abnormal anatomy

This is a rare but important reason that conception may fail. Occasionally, a filly can be born with an abnormal anatomy that makes it impossible for her to breed. For example, I came across one such animal that had no cervix; this was detected on a pre-breeding exam.



Figure 3: A uterine catheter being stitched into place to allow fluid to drain out of the uterus

Early pregnancy failure

After conception, some mares fail to maintain their pregnancy due to impaired hormonal control. Mares with this problem can be treated with progesterone replacement therapy such as Regumate. It is important to realise that there can be other factors that cause early pregnancy loss, including abnormalities of the embryo itself.

Unrelated diseases

If a mare is suffering with a disease it can interfere with getting her in foal. Examples include;

- Pars Pituitary Intermedia Dysfunction (PPID, or Cushing's disease)
- Gastric ulcers
- Poor body condition
- Obesity and Equine Metabolic Syndrome

Recognition and treatment of disease is important for fertility. As more older mares are being put in foal, we are recognising that a proportion of these do have PPID. When treated, the mare's fertility normally improves. However, we have to be aware that pergolide, the most common treatment for PPID, does stop a mare producing milk for her foal, so treatment is withdrawn in the latter stages of pregnancy to avoid this happening.

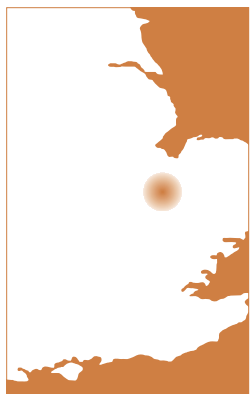
Stallion factors

We have explored problems mares can experience when trying to get pregnant. However, we mustn't forget the stallion. Things like semen quality and performance when using natural cover must be taken into consideration. Sometimes it can be his fault!

There are many reasons why mares fail to conceive, but a large number of them can be rectified. The involvement of your veterinary surgeon is crucial when a mare is having problems and a pre-breeding examination is so useful to anticipate these issues.

Desmitis - Suspensory ligament strains

Fellowes Farm Equine Clinic Ltd
VETERINARY SURGEONS



David Rutherford
BVM&S Cert ES(Orth) DipECVS
MRCVS European and RCVS
Recognised Specialist in
Equine Surgery
Fellowes Farm Equine
Clinic

Injuries of the suspensory ligament are common in forelimbs and hindlimbs of horses. Lesions are typically classified as affecting the proximal, body, or branches of the suspensory ligament.

Anatomy and Function

The suspensory ligament is similar in the front and hind legs of the horse. It starts on the back of the cannon bone just below the knee or hock, and runs down to attach on to the sesamoid bones at the back of the fetlock. The top part of the ligament (the proximal region or origin) and the middle part (the body) run down as a single structure before splitting into two branches above the fetlock. One branch attaches to the inside of the fetlock and the other to the outside, at the sesamoid bone (Figure 1).

When working with the distal sesamoidean ligaments, the purpose of the suspensory ligament is to support the fetlock during weight bearing. As a horse puts weight on its foot, the fetlock bends, and it is the job of the suspensory ligament to stop excessive joint flexion. Without the support of the suspensory ligament a horse's fetlock would collapse down to the ground during weight bearing.

Mechanism of Injury

Suspensory ligament strains are often a type of repetitive strain injury. Repeated exercise and training cause micro-damage to occur within the ligament, so that it gradually weakens. Certain conformation abnormalities and training regimes magnify this effect so that the micro-damage worsens and horses are then at risk of developing a strain. Strain can also occur after an abnormal loading event, such as landing awkwardly after a jump or a field accident.

Injuries can occur at any location within the suspensory ligament, but are most common at its upper and lower margins where it attaches to the cannon bone and sesamoid bone respectively.

The purpose of the suspensory ligament is to support the fetlock during weight bearing.

Signs of Injury

Depending on the location and severity of injury, lameness, heat, swelling and 'pain to pressure' are often present. In some cases these signs are not noticeable and instead only a slight loss of performance is observed, such as disuniting in canter. This is particularly true for strains to the upper part of the ligament in the hind leg.

Careful palpation, lameness evaluation and nerve blocks are often used to investigate the problem, with ultrasound examination usually giving the final diagnosis. Damage in the suspensory ligament will show as an enlarged cross sectional area (swelling), loss of regular fibre pattern and black holes if injury is more severe (Figure 2).

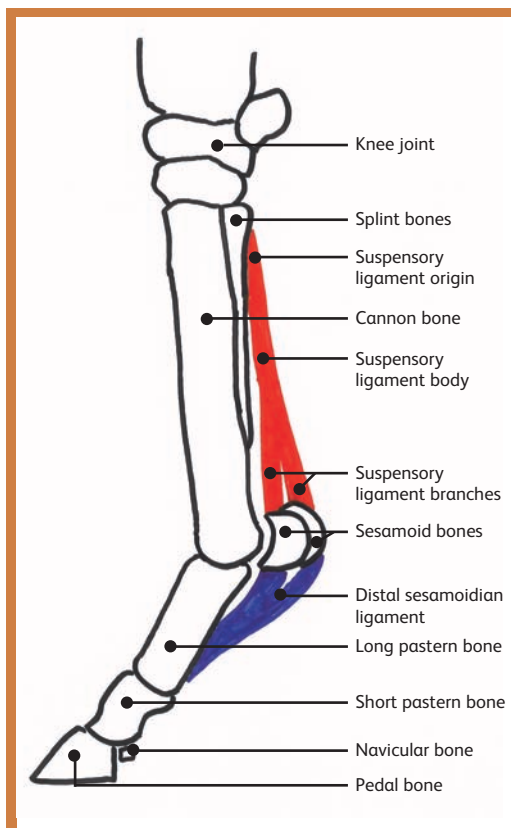


Figure 1: Anatomy of a horse's front leg when viewed from the side. The suspensory ligament, sesamoid bones and distal sesamoidean ligaments act as a single unit to prevent over extension of the fetlock joint during weight bearing.



Figure 2: Cross sectional ultrasound image through a horse's inside (left side of image) and outside (right side of image) suspensory branches. These images are of the right hind leg, 3cm above the fetlock joint. The outside branch is enlarged and there is a black hole representing a tear within it.



Figure 3: A horse's blood is filtered to separate out the platelets. These can then be collected in a syringe ready for injection into the damaged area of the suspensory ligament.

Management and Treatment

The cornerstone of management for suspensory ligament injuries remains as prolonged rest with controlled return to exercise. To start with, confinement in a stable or small pen is preferred, with hand walking exercise. Some horses will not tolerate this and they have to be turned out into a small paddock, but this is not ideal. Over the course of six to twelve months the turn out area will gradually be enlarged and ridden walking, trotting and cantering exercise will increase. Physical therapies such as stretches, water treadmill exercise and swimming may also be useful. Depending on the specific injury, the farrier may be asked to apply corrective shoes, usually to give extra heel support.

Due to having a limited blood supply, ligaments tend to heal slowly and poorly, but there are several veterinary treatments which can improve the quality and speed of healing:

a) Platelet Rich Plasma Injection (PRP):

A sample of the horse's own blood is taken and filtered or spun to collect a specific cell within the blood called a platelet (Figure 3). These platelets can then be injected into the strained area using an ultrasound scanner to ensure accurate placement. Platelets are important in instigating the healing process, so by introducing a large number into a damaged area, healing is given a kick start. This treatment is most appropriate when there is a hole or tear in the ligaments so that there is a space for the platelets to be injected into.

b) Shock Wave Therapy:

Pressure waves are applied to the skin above the site of injury. These transmit energy into the damaged tissue below and stimulate new blood vessels to grow into the area, bringing an increased supply of oxygen, growth factors and nutrients required for healing. This is most appropriate where ligament fibres are stretched but there is no actual hole, especially at the junctions between the ligament and bone.

c) Cartrophen:

This medicine is injected into a horse's muscle once a week for 4 weeks. It is licenced for treating arthritis in dogs, but is useful for improving ligament health in horses by providing the building blocks for repair of the jelly which surrounds the ligament fibres. It is often used in combination with PRP or shock wave therapy.

In the specific situation of damage to the top part of the suspensory ligament in the hind leg, medical treatments as above are particularly unrewarding. For this injury a surgical option exists where a section of the specific nerve which gives sensation to the damaged area is removed and a tight band of tissue which puts pressure on the suspensory ligament is split open.

This does not cure the underlying problem, and there can be problematic side effects, but in some circumstances the surgery can allow a horse which has been lame in the long term to return to exercise.

Prognosis

Successful return to exercise depends on the severity and location of the initial injury, how well the horse accepts the necessary rest, and which treatment options and rehabilitation programmes

are selected. Some injuries do very well, others much less so. Once a ligament has been injured, there is always a risk of re-injury in the future.

Location of injury in ligament	Prognosis for return to previous exercise level
Top of cannon (origin)	Front leg Good >80% Hind leg Poor with medical treatment 10-20% Better after surgery 60-70%
Mid cannon (body)	Poor <25%
Lower cannon (branches)	1 branch Good >80% 2 branches Guarded 40-60%

Managing the Moody Mare



We all have experience of mares that are sweetness and light most of the time and then, seemingly for no reason, turn into teeth baring angry monsters, with no prior warning! These moody mares are difficult to handle and can be impossible to ride. Understanding the cause of this behaviour will help formulate a treatment plan.



Karl Holliman
BVM&S CertEP MRCVS
Cliffe Equine Vets

Although moody mare behaviour is common in mares under the influence of hormones, it is essential to rule out other non-hormonal causes.

Mares are seasonal breeders and will come into season (oestrus) and breed during the spring and summer months. Their breeding pattern has evolved to ensure foals are born in the summer, when the ground conditions, grass availability and the weather are at their optimum. During the breeding season mares come into oestrus approximately every 21 days with each season lasting between 3 and 6 days, under influence of the hormone 'oestrogen'. During this time mares will show typical behaviour of 'winking' (opening and closing their vulva), posturing and frequent urination; all to signal to a stallion that they are ready to mate. The presence of high levels of oestrogen causes swelling of the reproductive tract which can cause pain, discomfort and colic in some mares. This 'mare-ish' behaviour can make them difficult to ride, handle and groom, often affecting their ability to perform under saddle. Added to this, mares may be more interested in finding a stallion nearby, than concentrating on their rider or handler!

During the winter months mares, conversely, enter winter anoestrus where their hormone levels are low, meaning they don't usually exhibit this mare-ish behaviour. There is a period between the winter anoestrus and the breeding season, known as the transitional phase where mares have a period of erratic cycles of varying length, that can cause prolonged periods of unpredictable behaviour until the normal oestrus cycling pattern establishes.

In rare situations, moody mare behaviour may be caused by abnormalities of the ovaries such as the presence of a Granulosa Cell Tumour. With prolonged abnormal behaviour change in a mare, examination of the ovaries with ultrasound and blood samples should be carried out to rule out such tumours. These tumours can grow to very large sizes and may release high levels of sex hormones and can influence behaviour. These are usually non-malignant, and removal of the affected ovary carries a very good prognosis for future breeding.

Some mares also experience pain at, or around the time of ovulation and may show colic symptoms. Veterinary internal examination may elicit a severe pain reaction on ovary palpation on the side of follicular development. These mares may have repeat colic episodes during their oestrus cycle.

If there is any infection within the mare's reproductive tract, such as infection in the uterus (endometritis), the mare will often show short cycle, coming into oestrus more frequently than the normal 21 day interval. The inflammation of the uterus lining may stimulate hormones to mark the mare's return to season more quickly. If a mare is short cycling, then veterinary examination of the uterus would be recommended. This may consist of ultrasound, swabs and biopsy of the uterine tissue itself. Treatment of the endometritis should return the mare to a more regular cycling pattern.

Although moody behaviour is common in mares under the influence of hormones (such as oestrogen), it is essential to rule out other non-hormonal causes of pain-type behaviour before embarking on treatment to suppress oestrus. Common causes of such behaviour include back or saddle pain, gastric ulcers, low-grade lameness or dental pain. A thorough veterinary examination of your mare is essential to establish the cause of such behaviour and to plan the optimal treatment or management.



Treatment options for the moody mare:

1. Hormone therapy

Use of progestogen in the mare stops the mare's cycles (acting like the human pill). This can be administered daily in feed (Regumate) or injected weekly.

2. Uterus Implantation

Implantation of either a marble or plant oil (such as peanut oil) into the uterus after time of ovulation can trick the body to thinking the mare is pregnant and therefore the mare doesn't return to oestrus.

3. Vaccination

Although not licensed in the UK, a hormone (GnRH) vaccine has been shown to suppress mares' oestrus activity. Some injection site reactions have been reported. A similar vaccine is available in Australia and is licensed there for horses. It also carries much less risk of side effects although importation is very costly. Vaccines of this type are not suitable for mares which may be considered for breeding in the future.

4. Pregnancy

During pregnancy, the mare has high levels of progesterone and low levels of oestrogen and therefore mares don't show oestrus behaviour. Pregnancy being a sure-fire way of preventing mare-ish behaviour!

5. Surgery

A permanent solution to hormone related moody mare behaviour is to surgically remove both ovaries (ovariectomy). This surgery is carried out under standing sedation and local anaesthesia, using laparoscopy (key-hole surgery) via the mare's flanks.

6. Feed Supplementation and Calmers

There are many supplements on the market for the treatment of moody mares. Although none of these have been shown to suppress oestrus or affect hormone levels, there is anecdotal evidence these can help some mares.

If you are concerned about your mare's behaviour, keeping a diary of events and behaviour will help establish whether there is a pattern to this behaviour and whether it coincides with oestrus or certain seasons. Discuss these matters with your vet who can help establish the cause and plan the best treatment option for your mare.

Condition scoring your horse



Keeping your horse at the correct weight is essential for their health. Many equine health conditions and illnesses can be induced or worsened by a horse being at an incorrect body weight.



The importance of horses not being underweight is well known, but being overweight also risks serious, long-term health problems. These include heart and lung conditions, problems with joints, lameness and laminitis.

Sadly, studies show that 35-45% of the UK horse population is overweight or obese, and this is a serious welfare problem. The first step to maintaining your horse at the correct weight is being able to accurately assess them. Knowing your horse's actual weight is useful but it won't tell you if this is appropriate

for them. Although there are guidelines based on weight to height ranges there is so much variety within horses that these are of limited value. The best way to find out if your horse is carrying the right amount of body fat is to learn how to 'fat score' (also known as body condition scoring).

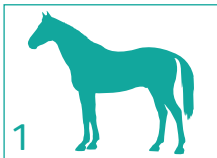
There are two main fat scoring systems - the 1-5 system is the easiest to apply and provides an effective way of assessing condition, with the key being to get hands-on and feel for fat cover rather than just looking at your horse.



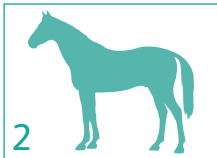
Sara Fleck
BVSc CertAVP(EM)
MRCVS
Bishopton Equine

How To Fat Score Your Horse

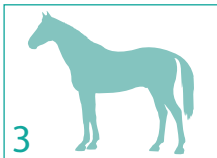
Averaging system designed by Dr Teresa Hollands BSc (Hons), MSc (Nutrition), PhD, R.Nutr



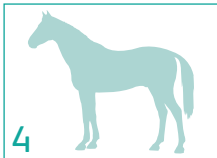
Feel along the top of your horse's neck - can you wobble the top or is it firm? Also, feel if it is significantly thicker as you move down from the poll towards the withers.



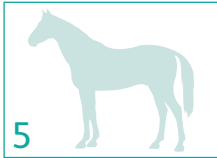
Run your hands down your horse's neck and onto its shoulder. If there is fat built up in front of the shoulder blade your hand will run from the neck to the shoulder without the shoulder blade 'stopping' your hand. Look at the body fat guide and score your horse out of 5 for its neck and shoulder.



Lay your hand across your horse's back. Ideally your hand should arch over your horse's spine. When horses put on weight in this area the fat builds up either side of the spine, giving you a flat hand.



Run your hand along your horse's side. You should be able to feel its ribs fairly easily. Again, give your horse a score out of 5 for its back and middle.



Look at your horse from behind (safely of course!). Its bottom should have a rounded curve like the letter 'C' on its side. Give a score out of 5 for the bottom.

Once you have all 3 scores then add them together and divide by 3 to find your horse's average overall fat score.

'Studies show that 35-45% of the UK horse population is overweight or obese'

0	<p>emaciated</p>	<ul style="list-style-type: none"> • Marked 'ewe' neck, narrow and slack at base • Skin tight over the ribs, which are clearly visible • Spinous processes sharp and easily seen • Angular pelvis, skin tight, very sunken rump • Deep cavity under tail and either side of croup.
1	<p>poor</p>	<ul style="list-style-type: none"> • 'Ewe' neck, narrow and slack at base • Ribs clearly visible • Skin clearly shrunken either side of spine - spinous processes well defined • Rump sunken but skin supple, pelvis and croup well defined, cavity under tail.
2	<p>moderate</p>	<p>Normally ideal for a fit racehorse or eventer</p> <ul style="list-style-type: none"> • Neck narrow but firm, shoulder blade clearly defined • Ribs just visible • Spine well covered - spinous processes felt but not seen • Rump flat either side of spine, croup well defined, some fat, slight cavity under tail.
3	<p>good</p>	<p>Normally ideal for most show and leisure horses</p> <ul style="list-style-type: none"> • Firm neck, no crest (except stallions), shoulder blades defined • Ribs just covered, easily felt • No gutter along back - spinous processes covered but can be felt • Pelvis covered by fat and rounded, no gutter, pelvis easily felt.
4	<p>fat</p>	<ul style="list-style-type: none"> • Slight crest on neck, wide and spongy • Ribs well covered • Gutter along spine to root of tail. Fat stored either side of the spine to form slight 'apple bottom', with a gutter down the middle • Pelvis covered, felt only with firm pressure.
5	<p>obese</p>	<ul style="list-style-type: none"> • Marked crest, very wide and firm, creases of fat. Shoulder blade buried and difficult to feel • Ribs buried, cannot be felt • Deep gutter along spine, back broad and flat. Deep gutter to root of tail, producing marked apple bottom, skin distended • Pelvis buried, cannot be felt.



FACEBOOK COMPETITION



WIN!

£50.00 Joules
Gift Card...

Can you spot the **three**
differences between these
two photographs?

Study the photographs and find the three
differences in the bottom image. Send us
your answers via our Facebook page.

To enter please visit:

www.facebook.com/XLVetsEquine/ and list
your three answers in a direct message.

Closing date: 10th May 2019

Good luck!



Competition results will be posted on our Facebook page after the closing date.

