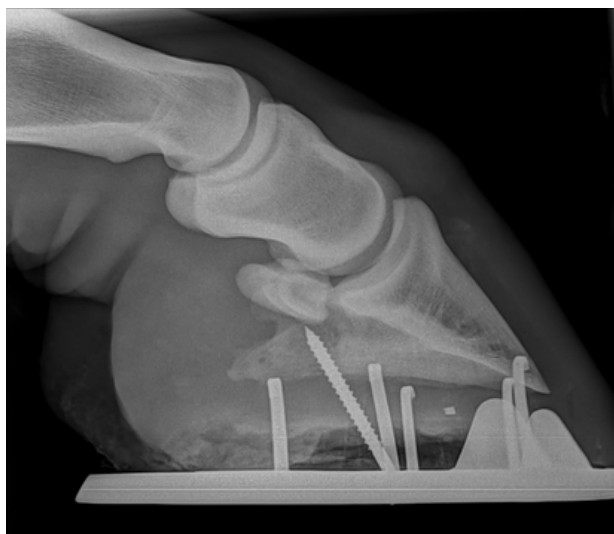


## **NAVIGATING LAMENESS:**

### **A case study of a 20-year-old warmblood mare with severe hind limb lameness.**

This case study looks at a recent emergency that was seen by one of our vets, Liz. The horse in question is a 20 year old, warmblood mare who was noted to be severely lame on her right hind one Sunday morning. Her owner rang our out of hours number and Liz arranged to visit the horse that morning.

On arrival the mare was found to be in considerable pain and was lying down in her stable. When she stood up, she was reluctant to bear weight on her right hind. Initially it was hoped that this would be a simple foot abscess, however, on closer inspection of the foot, a screw head was seen to be poking out of the sole, midway along the frog cleft.



With the screw left in place, radiographs were taken to assess the depth of penetration. The radiographs revealed a large screw approximately 7cm in length which was found to be in contact with the navicular bone and resulted in infection of the navicular bursa.

Synovial sepsis (infection of joints, tendon sheaths or bursa) in adult horses often occurs following a direct penetrating wound to that structure. Synovial fluid samples are taken from the joint or bursa that is suspected to be involved to measure the number of white blood cells. If this number is increased it indicates that there is an infection present. This fluid can also then be cultured in the lab to classify the type of bacteria driving the infection and then the bacteria's sensitivity to various antibiotics can also be determined so that appropriate antibiotic treatment can be used.

If a synovial sepsis is not treated, the issue will often become life threatening. The gold standard treatment for a horse with synovial sepsis is arthroscopy under general anaesthetic to fully flush out the affected structure with large volumes of sterile fluid, remove any other foreign bodies or debris that may be present within the structure and assess any further damage that the wound or penetrating object may have caused within the synovial structure.

The screw was removed and a sterile bandage was placed for the mare to travel to hospital. Pain relief was also given to improve the mare's comfort for the journey.

On arrival at hospital, analysis of synovial fluid confirmed suspicions that the screw had caused infection of the navicular bursa. Surgery was performed without delay under general anaesthetic. During the arthroscopy, damage to the deep digital flexor tendon was also found where the screw had torn part of the tendon. The affected fibres were debrided during surgery.

Over the following couple of days, the mare did not improve as hoped despite treatment with antibiotics and pain relief. A repeat analysis of the synovial fluid from the navicular bursa revealed that there was still infection present due to antimicrobial resistance to the antibiotics. Antibiotics were changed but the mare became more uncomfortable and a repeat surgery was recommended and performed.

Luckily, the mare responded well to the repeat surgery and a further change in antibiotics, and analysis of synovial fluid revealed a resolution of the infection.

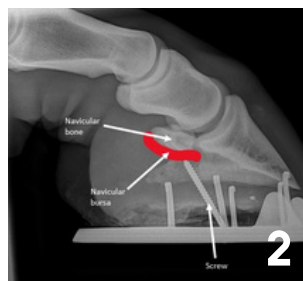
We are happy to report that the mare is now home and comfortable post surgery and responding well to ongoing antibiotic treatment.

She has a hospital plate fitted to the base of her shoe to protect the solar defect where the screw entered the foot and also to raise her heel slightly to reduce strain on the damaged deep digital flexor tendon.

She now has a period of box rest and rehabilitation whilst her tendon heals and she recovers from her two surgeries.

**This case study highlights the importance of leaving any penetrating foreign bodies in place until they have been assessed by a vet and radiographs taken if necessary. This enables the exact depth and direction of any foreign body to be determined and the risk of synovial sepsis determined more quickly. If in doubt, please give us a call and one of our vets will be able to advise you what is best to do.**

1. Screw in foot
2. Labelled X-ray showing the screw in the navicular bursa
3. Hospital plate



## TAKING NOTE OF ANTIMICROBIAL RESISTANCE

The case study also highlights the real risk of antimicrobial resistance that the healthcare profession is facing. Antimicrobial resistance is the ability of a microorganism (eg bacteria or viruses) to prevent an antibiotic or antiviral working against it and so rendering some treatments useless.

To help prevent the development of resistance, vets should only use antibiotics where there is an indication of bacterial infection and a suitable first line antibiotic should be chosen for treatment. Where there are severe infections or where infections have not responded to routine treatment, bacterial culture and sensitivity should be carried out to check what the bacteria involved are and what antibiotics they are susceptible too.

Horse owners should not start antibiotic treatment without the animal being assessed by a vet and should only use antibiotics prescribed for that horse at the advised dose rate and for the specific duration as directed by the vet. As of 1st September 2023, RCVS guidance states that no antimicrobials can be prescribed to an animal without a clinical examination taking place. This will help reduce the rate of antimicrobial resistance developing.

### Top tips for safe antimicrobial use:

- Always follow veterinary guidance on dose, timings and length of treatment course
- Wear gloves to handle and administer antibiotics
- Store antibiotics as directed by your vet
- Keep out of reach of children and other animals at all times
- Always finish the treatment course unless directed otherwise by your vet

**If you have any unused or out of date antibiotics at your yard, please give these to our vets or drop them into our office, so they can be disposed of appropriately and safely.**



# EQUINE NUTRITION ESSENTIALS

How to craft a well-balanced diet for your horse with the right mix of nutrients.

Ensuring that your horse receives a well-balanced and nutritionally sound diet is essential for their overall health, performance and longevity. A horse's diet must encompass a mix of nutrients to meet its specific physiological needs, taking into consideration factors such as age, weight, activity level and health status.

## Forage first

The foundation of any horse's diet should be high-quality forage, such as hay or grass. Forage provides essential fibre, promoting healthy digestion and preventing issues like colic. Aim for a mix of grass and hays to ensure a diverse nutrient profile.

## Balanced energy sources

Horses require a blend of energy sources, including carbohydrates, fats and proteins. Concentrates like commercial feeds can be introduced, but their amounts should be adjusted based on the horse's workload and body condition. Too many concentrates can lead to problems such as obesity or metabolic issues.

## Balancer

A balancer is a specialised feed designed to provide essential nutrients in precise proportions, filling the nutritional gaps that may exist in the horse's primary forage or grain-based diet. Balancers are particularly crucial for horses on forage-based diets, where certain micronutrients may be lacking. Whether the horse is an athlete engaged in rigorous activities or a companion animal enjoying a more leisurely lifestyle, a well-formulated balancer plays a vital role in ensuring that the horse receives the necessary nutrients for optimal growth, energy metabolism, and immune function.

## Protein for muscle health

Adequate protein is crucial for muscle development, immune function and overall tissue repair. Include protein-rich sources in the diet, such as alfalfa. The protein content should align with the horse's age and activity level.

## Vitamins and minerals

A well-rounded diet must incorporate essential vitamins and minerals. While good-quality forage provides many of these nutrients, commercial feeds or supplements may be necessary to address specific deficiencies.

## Hydration

Water is often overlooked but is a fundamental component of a horse's diet. Ensure that your horse has access to clean, fresh water at all times. Hydration is vital for digestion and overall wellbeing.

## Regular monitoring and adjustments

Every horse is unique and their nutritional requirements may change over time. Regularly monitor your horse's weight, body condition and overall health. Adjust the diet as needed based on changes in activity level, age, or any health concerns.

## Consultation with your vet or equine nutritionist

For a personalised and accurate assessment of your horse's nutritional needs, consult with your vet or qualified equine nutritionist. They can analyse factors specific to your horse and recommend adjustments to optimise their diet for health and performance.

**Remember, a horse's diet should be a carefully crafted mix of forage, energy sources, protein, vitamins and minerals, tailored to meet their individual requirements.**

**Regular monitoring and professional guidance are crucial to ensuring your horse receives the best nutrition for a happy and healthy life.**





# HOW A VET EVALUATES A HORSE WITH COLIC



**Evaluating a horse with colic is a critical and complex process that requires the expertise of a vet.**

Colic refers to abdominal pain in horses and it can have various causes, ranging from mild to life-threatening. The goal of the vets is to identify the underlying cause and determine the most appropriate course of action for treatment.

**Here is an overview of how a vet evaluates a colicky horse:**

## **1. Clinical examination**

The initial assessment involves a thorough clinical examination of the horse. The vet will observe the horse's behaviour, vital signs and overall demeanour. They will check for signs of distress, such as pawing, rolling, sweating and restlessness.

## **2. Vital signs**

Monitoring vital signs includes checking the horse's heart rate, respiratory rate, mucous membrane colour, capillary refill time and listening/auscultating for gut sounds.

Abnormal vital signs can provide valuable clues about the nature and severity of the colic.

## **3. Rectal examination**

A rectal examination allows the vet to assess the condition of the horse's intestines, identify impactions, displacements, or twists and gather information about the severity of the colic.

## **4. Diagnostic imaging**

In some cases, diagnostic imaging such as ultrasound or radiography may be necessary to visualise the internal structures of the abdomen. These tools can help identify specific abnormalities such as intestinal obstructions, torsions or inflammatory conditions.

## **5. Blood samples**

Blood samples may be taken to evaluate the horse's overall health, assess hydration status and detect signs of infection or inflammation. Abnormal blood values can provide additional insight into the nature of the colic.

Further tests such as abdominocentesis, collecting and testing a sample of peritoneal fluid and passing a nasogastric tube can be helpful to determine the severity of the colic.

## **6. Medical history**

Gathering information about the horse's medical history, recent changes in diet, exercise routine or environment is very important. Understanding the context of the colic episode can help the vet determine the likely cause and appropriate treatment plan.

## **7. Response to treatment**

Based on the initial evaluation, the vet may initiate conservative medical treatment, such as pain management and fluid therapy.

Monitoring the horse's response to treatment is essential in guiding further diagnostic steps or interventions.

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**It's important to note that colic in horses can be caused by a variety of factors and the approach to evaluation may vary based on the specific circumstances of each case. Timely and accurate diagnosis is critical for successful treatment and the wellbeing of the horse.**

# EQUINE WORMER RESISTANCE...

## ...and its growing challenge in equine health management

Equine wormer resistance is a worrying issue where parasites that affect horses develop the ability to survive and reproduce despite the administration of traditional deworming medications. These medications, known as anthelmintics, are designed to reduce internal parasites in horses and maintain their health. However, over time, some parasites can evolve and become resistant to the effects of these drugs.

When horses are regularly treated with the anthelmintics, the parasites that possess genetic traits allowing them to survive exposure to the medication will pass on these traits to their offspring. As a result, over successive generations, the overall population of parasites becomes more resistant to the drug, making it less effective in controlling the infection or parasite burden.

Horse owners and vets face the challenge of managing wormer resistance to ensure the continued effectiveness of anthelmintic treatments. This involves implementing strategic deworming programs which involve assessing the horse and yard risk and regular testing, including faecal worm egg counts. Poo picking at least twice weekly is laborious and time consuming but it is the single most effective intervention/thing a horse owner can do to reduce your horse's parasite burden and reduce the risk of resistance.

Education and awareness play a crucial role in combating equine wormer resistance. Horse owners should be aware about the risks associated with over using dewormers and the importance of implementing sustainable parasite control practices. By adopting a proactive and well-informed approach, the equine community can work together to minimise the impact of wormer resistance and safeguard the health of horses.

