**heat exhaustion**

As the summer heat intensifies it is important that you are aware of the warning signs that can indicate heat exhaustion in your horse both when competing and/or travelling your horse over the summer months. Hyperthermia (heat stroke or heat exhaustion) is the elevation of body temperature due to excessive heat production or absorption, or to deficient heat loss. The major cause is a physical one due to high environmental temperature and prolonged, severe muscular exertion. Some compounding factors can be dehydration, heavy hair coat, high humidity, fat horses/ponies, or confinement in an area with poor ventilation. If you think your animal is suffering from exhaustion you can easily take its rectal temperature. This should not exceed 39.5°C and if a high heart rate and respiratory rate accompany this, you should start to be concerned for your horses welfare. Some other signs to look for to are an absence of sweating, dullness, stumbling when walking, lying down, seeking water and even splashing themselves to relieve the core temperature rise. Because of electrolyte loss horses may lose the stimulus to drink and in severe cases during an event they will not drink for days. If a horse is severely affected then intravenous fluids may be necessary administered by a veterinarian. In the case of ‘thumps’ electrolytes need to be added to treat this condition and as much as 20L to 40L of fluid given. So look after your competitive partner this summer and don’t forget to look after yourself too. Good luck!

**tip**

Supplementing your horse for several days before, during competition and travelling with an electrolyte will help to keep them hydrated.

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**bone scan update**

The scintigraphy (bone scan) camera has been busy since opening in July 2009. Scintigraphy makes it possible to make an accurate diagnosis and give effective treatment for a variety of lameness injuries in horses. The challenge for us as vets, is proving to owners and trainers the benefits of these diagnostic tools to equine welfare, minimising lost training days and associated costs and minimising the wastage and poor performance of potentially great athletes.

**Subchondral bone disease**

This syndrome deserves special mention as it plays a significant role in osteoarthritis in horses and humans. Racehorses undergo tremendous changes in the subchondral bone of their carpal (knee) and metacarpophalangeal ( fetlock) joints during training. In addition, intense subchondral bone sclerosis (modelling) and subsequent joint damage (osteoarthritis) are common. In fact these injuries account for the majority of wastage and poor performance in athletic horses.

Images show ‘increased uptake in condyle of fetlock joint’

Recent studies using scintigraphy and clinical and pathological findings, support the concept of a continuum of adaptive and non-adaptive responses of bone in these horses. It is believed what happens in the joint is that the underlying bone becomes stiff due to the high loads experienced during training and as a result the overlying articular cartilage collapses. These types of lesions are progressive and inoperable and result in significant osteoarthritis, despite supportive therapy. The challenge is in detecting these injuries at an early stage to allow their correct management. A Scintigraphy examination is essential in achieving this. These changes are occurring well before we can see lesions on radiographs and if the horse continues to exercise the problem exacerbates until a chronic untreatable lameness results in early retirement of the horse.

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**Bio-Sponge**

Bio-Sponge is an intestinal protectant made of DTO smectite which is designed to help support healthy intestinal function in horses. It is already widely used to support and maintain optimal intestinal health. For adult horses administer 120cc Bio-Sponge Paste twice daily for stress or travel related intestinal disturbances.

**product**

Add Bio-Sponge to your horse’s First Aid Kit when travelling.

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**news update**

It has been a busy season for our Equine team and with the breeding and foaling season nearing completion we now gear ourselves up for the heart of the racing calendar, yearling sales and sport horse competition season.

Since our last newsletter our vets attended a variety of veterinary conferences to update and upskill our practice. Jason Lowe BVSc, Cert EP attended a two-day seminar dedicated to the Racehorse in Newmarket, United Kingdom. An internationally renowned group of speakers from across the UK, North America, Hong Kong and Dubai presented the most up to date scientific knowledge on all aspects of the veterinary treatment of racehorses. A variety of topics were covered from the latest in lameness diagnosis and joint treatments to endoscopy and tendon injuries. It was a stimulating forum that allowed the sharing of both practical experiences and veterinary science from around the world.

Fauna Smith BA, DVM travelled to the Sunshine Coast to attend the Bain Fallon Veterinary Conference. Sport horse performance, lameness and Cushings’ disease were areas of particular interest.

The rest of the Equine Team spent time attending the New Zealand Equine Veterinary Conference in Taupo. Interesting topics included equine anaesthesia, foal medicine, sport horse medicine and racehorse lameness – all useful information that we have been able to apply in practice.

The Equine Team wish you all a very Merry Christmas and successful New Year. We acknowledge your support over the past year and look forward to seeing your results on the racetrack, in the sale ring and on the competition field.

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**products**

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**urinary hours**

Over the holiday period we are closed for routine procedures 25 and 26 December, 1 and 2 January but we continue to provide 24/7 emergency care.

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**did you know**

A horse’s blood volume is approximately 8% of its bodyweight, e.g., a 500kg horse has 40 litres of blood.

The horse has a small stomach in relation to its size, approximately 12 litres capacity.

A horse can be safely administered up to 7 litres of fluid through a stomach tube as often as every hour.

In cool weather, horses will drink about 10-12 gallons per day. During hot weather they drink 20-25 gallons (or more) per day depending on the heat and humidity.

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**xmas Tip**

Include Bio-Sponge in your horse’s First Aid Kit when travelling.
**Arthroscopy**

Arthroscopy is a major development in treating joint disease in the horse. Over the last twenty years 'key hole' arthroscopic surgery has become commonplace in treating bone chips of the fetlock, knee (carpus), hock (tarsocrural) and stifle joints.

The minimally invasive approach optimises patient outcome. Prognosis is improved and complications reduced. Indications for surgery include joint swelling and lameness. The outcome of any joint problem is improved with early diagnosis and treatment.

Arthroscopic surgery is used in our practice in many situations. These include, but are not limited to:

- The removal of osteochondral fragments (OCD) from joint of young horses, especially those destined for the Karaka yearling sales
- The removal of small fragments that occur in racehorses and other athletes and result in lameness and poor performance
- To flush and treat septic joints in adult horses and foals
- To assess joint involvement in fractures of the pastern, cannon or carpal bones

Surgery requires a general anaesthetic and the horse is positioned on a hydraulic table. Digital equipment is used through a small incision into the joint to display an image. Using a tiny camera relayed to a flat screen. The problem in the joint is identified and treated using instruments designed to pass through a second incision. Once the joint is treated and flushed the incisions are sutured closed and the horse recovers from anaesthesia in a padded room.

Following surgery it is important to stick to exercise restriction and rehab times along with bandaging, monitoring and stitch removal recommendations. This allows the joint to heal and reduce chances of complications. Stall rest with light hand walking is essential for the first month, with other rehabilitation techniques used during the next 2-6 months depending on the condition. The under water treadmill is an attractive alternative to swimming pools and offers reduced weight bearing when reintroducing exercise after surgery.

Feel free to call us if you have any questions about arthroscopy and what it involves. There are a number of different treatment options for joint problems. A full lameness exam and diagnostic tests will determine the best course of action for your horse.

**Rhodococcus**

Around the world foals less than 6 months of ages are commonly affected by Rhodococcus equi. This is a soil based bacterial organism and some soil types on particular farms appear to be more commonly affected by the disease than others. Hot, dry weather leading to a dusty environment are the ideal conditions for the spread of this disease. We commonly see this disease in foals in New Zealand.

The disease itself usually occurs in foals aged 4-12 weeks. It causes a progressive pneumonia. The harsh lung sounds and distinctive coughing that develops in the foals have led to the lay term “Rattles” being used to describe the disease. Abscesses form in the lung, which can be seen on ultrasonographic examination. These abscesses require antibiotic treatment for an extended period of time, which is costly and time consuming. Occasionally it may cause deaths without any prior clinical signs. Some studies have shown that horses that have had Rhodococcus pneumonia as foals perform poorer as racehorses compared to unaffected foals.

As with all diseases the best method of dealing with the disease is prevention. There is currently no vaccine available to prevent Rhodococcus infection. The disease is best prevented by effective management procedures such as minimising the time spent by foals in dusty yards and removal of dung from yards and paddocks. Administration of hyperimmune plasma is the only method proven to aid in the prevention Rhodococcus equi infection. It has been found that giving foals one litre of hyperimmune plasma provides 6 weeks of immune protection against this bacterium. It is recommended that foals on infected farms receive plasma at 1 and 30 days of age. This plasma allows the foal’s immune system to develop a killing response much faster than it otherwise would. It has also been shown that the administration of plasma after infection does not result in the same up-regulation of the immune system.

**New castration technique: Henderson tool**

Field castration is considered to be a routine procedure that is commonly carried out. As any owner who has castrated horses knows, there is also a very high complication rate (18-33%) associated with field castration. Both owners and veterinarians have accepted this as normal. It is not uncommon to revisit a horse a week after castration to re-establish drainage and administer antibiotics. Every year we also deal with a handful of chronically infected wounds requiring surgery. The cost of treating complications is often many times the cost of the original castration.

In an attempt to decrease complication rates with field castration we have recently purchased a Henderson Tool and have had great success to date. A closed castration (tunic left over the testicle) incision is used and the testicle and cord exteriorised. The tool is clamped over the cord and the other end of the tool is then placed in the drill bit. Initial turns are made to form a ‘knot’ in the cord and then the speed is increased and traction is applied. This results in a very tight seal that has very little blood loss. This decreases post castration complications including swelling, haemorrhage, trauma and infection. Due to the tight seal there is less chance for infection to enter into the abdominal cavity. This technique is faster than traditional castration and therefore decreases anaesthetic times and risks as well.