



TATURA & CAMPASPE VETERINARY CLINICS

# EQUINE NEWSLETTER

*Winter-2010*

## WINTER WOOLIES AND WARMERS

As owners, it gives us a warm fuzzy feeling seeing our horses cozy in their rugs on a cold, wet or windy night. However, with winter rugging comes extra responsibilities;

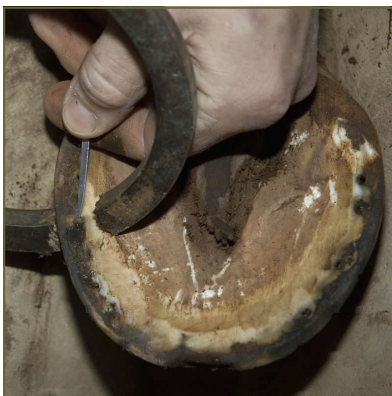
- \* Horses are naturally tolerant to cold weather, and it is important to choose a rug that is appropriate to how much extra protection that they genuinely need.
- \* Winter energy requirements increase, so we must take rugs off at least weekly to assess body condition and also to check for any rug-rubs or injuries.
- \* Lice are particularly fond of thick and wooly coats, so check for any creepy-crawlies if your horses seem extra itchy.
- \* Remember that a horse's winter coat length is regulated by daylight hours, and cannot be controlled by over-rugging.
- \* Make sure all your waterproof rugs are actually waterproof—a soggy wet rug will not be providing any protection!



## HOOF ABSCESSES—A PAIN IN THE HOOF!

Hoof abscesses are one of the most common causes of sudden and severe lameness in the horse. They can develop very quickly, and within 12 hours the horse may be reluctant to place the hoof on the ground, leading to a “toe-pointing” stance. Other signs to look for include elevated digital pulses, heat within the hoof wall, and swelling of the lower limb.

A hoof abscess is a localised bacterial infection within the sensitive structures of the hoof. Pus is produced and accumulates within the hoof wall or under the sole, depending on the location of the abscess. Since the hoof cannot expand, the increased pressure causes significant pain. The pus will take the path of least resistance to relieve the pressure and if left untreated, will usually work its way up the hoof wall, breaking out at the coronary band or the bulbs of the heel.



Most hoof abscesses we see are caused by white line separation. Mud and dirt pack into the area of separation, and when the hoof gets wet, this moisture encourages bacterial growth. White blood cells are sent to the area of infection, and pus is formed as the horse's immune system attempts to fight the infection. This explains why we see most abscesses in winter- particularly when horses are kept in muddy, boggy paddocks.

Treatment is aimed at developing solar drainage of the abscess, to alleviate the pressure within the hoof and reduce pain. Hoof testers enable us to locate the sensitive area, and then using a hoof knife, we can par away the overlying tissue to drain the abscess. Poulticing is helpful as it softens the sole and helps to draw the infection out. Tetanus prophylaxis is vital when a horse has a hoof abscess.

TATURA AND CAMPASPE VETERINARY CLINICS

Please contact Amber and Clare to discuss any of your horse concerns.

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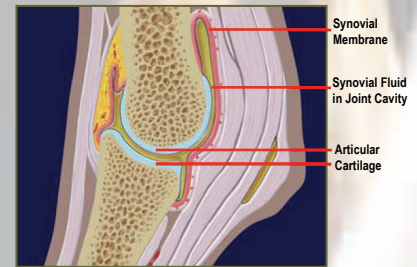
[www.tatvet.com.au](http://www.tatvet.com.au)

# IN FOCUS— HYALURONIC ACID AND PENTOSAN

With so many arthritis treatments on the market, how do you decide which one is best for your horse? With HA and Pentosan being prescription-only products, we regularly help owners make this decision.

## A HEALTHY SYNOVIAL JOINT

A synovial joint consists of articulating surfaces of bone covered by cartilage, contained within a fibrous joint capsule with a synovial membrane lining and a cavity within these structures containing synovial fluid. Examples of synovial joints include the fetlock, carpus and hock joints.



Articular cartilage consists of glycosaminoglycans (GAGs) such as hyaluronic acid (HA), chondroitin sulfate and collagens. Cartilage does not have its own blood supply; instead it relies upon receiving nutrition from the joint fluid and the bone directly underneath the cartilage. The other main role of joint fluid is to reduce friction between the articular cartilage during movement. Healthy joint fluid viscosity (“thickness”) is high, and is directly related to the HA content.

## OSTEOARTHRITIS (OA)

Joint disease is prevalent in horses because their joints are complex structures that must handle extreme weight loads on a very small surface area. The major characteristic of OA is the progressive degradation and destruction of the articular cartilage.

In most cases, OA begins after trauma to the joint. This trauma could be an obvious accident (e.g. a chip fracture), but in performance horses it is often more insidious, resulting from “wear and tear” damage. When trauma causes inflammation in a joint, the blood supply to the cells that produce cartilage and joint fluid are disrupted, leading to less and poorer quality joint fluid and cartilage.

Inflammatory cells and destructive enzymes are activated within the joint, which degrade proteins and GAGs in the cartilage and joint fluid. Eventually lubrication, resilience, and shock absorption qualities of the cartilage matrix and joint fluid decrease, and the underlying bone (subchondral bone) starts to respond to the abnormal stresses it is now absorbing by laying down extra bone. This results in the production of rough, bony “spurs” at joint edges, and a rapid downward spiral of continued joint inflammation and osteoarthritis.

**The treatment goals in OA are to reduce pain and inflammation, prevent cartilage breakdown, and encourage cartilage and subchondral bone healing.**

## HYALURONIC ACID (HA)

HA is an important component of normal cartilage and synovial fluid. It is important in giving cartilage its resilience, enabling it to resist high pressures. Within the joint fluid, HA is responsible for lubricating the cartilage and synovial lining of the joint; facilitating joint motion with minimal friction, and due to its large size, it acts as a physical barrier to other proteins and inflammatory cells from entering the joint. Supplementation with sodium hyaluronate helps to replace HA lost as a result of joint disease and thereby restores lubrication of the joint, reduces inflammatory infiltrates and minimizes ongoing damage.

## PENTOSAN POLYSULFATE SODIUM

Pentosan stimulates the cells of the cartilage and joint membrane lining to increase production of collagen, HA and other GAGs; components of both cartilage and joint fluid. This has the effect of improving both cartilage and joint fluid quality. Pentosan also inhibits degradative enzymes associated with cartilage destruction, inhibits inflammation within the joint, and improves blood supply to the joint.

## SO HOW DO WE CHOOSE WHICH PRODUCT TO USE?

Both HA and Pentosan show excellent results in clinical trials, and our own experience with both drugs support this.

Occasionally we find that a horse may show a good response to one product, but a poorer response to another, so individual variation can be an unknown. Both HA and Pentosan have a recommended initial course of one vial per week for 4 weeks, and this is a significant financial investment, so cost is also a consideration. HA is given intravenously, whereas Pentosan is an intramuscular injection, so ease of administration is another factor. It is also worth noting that due to the different action of both drugs, they can be used together. Given the huge range of oral joint supplements available (typically containing glucosamine and/or chondroitin sulfate), there is also the question of whether these are more beneficial than injectable products. It is important to recognize that with oral supplements, proof of efficacy is generally lacking, and studies to show poor intestinal absorption of these products. It is our opinion that HA and Pentosan are superior to currently available oral supplements.

Please contact us to discuss how HA or Pentosan can help your horse, or for more information on other products available such as Pentosan Gold + Halo, IRAP, intra-articular corticosteroids, non-steroidal anti-inflammatories, etc.