

# LEADING EDGE

## VETERINARY SERVICES

### **High Ringbone: Osteoarthritis of the Proximal Interphalangeal Joint**

Osteoarthritis is a common joint disease affecting middle aged to older horses. It's a chronic, degenerative process characterized by progressive cartilage deterioration, subchondral bone remodeling, loss of joint space and loss of joint function. High ringbone is when osteoarthritis affects the proximal interphalangeal (PIP) joint. This condition is more commonly seen in the forelimbs secondary to chronic overuse or repetitive trauma of the PIP joint and surrounding structures. Single-event, high-energy trauma that damages the cartilage and subchondral bone can also lead to osteoarthritis and is more commonly associated with high ringbone seen in the hind limbs.

**Diagnosis:** Diagnosis of high ringbone is done after lameness exam reveals suggestive clinical signs such as: firm, non-painful swelling, lameness worsening after flexion, no improvement after PD block and worsening lameness when weight bearing on the circle. Confirmation of diagnosis is made based on radiographic (x-ray) findings.

**Treatment:** Treatment varies based on a case-by-case basis. Severe lameness or acute traumatic episodes may have different recommendations versus a moderate chronic lameness.

Basics for treatment consist of NSAID (non-steroidal anti-inflammatory drugs) such as bute, banamine and firocoxib, change in horse's career, corrective trimming and rest/modified exercise.

Advanced treatment includes intra-articular medication of the PIP joint. Steroids such as Depo-medrol or triamcinolone can be injected intra-articular in an attempt to reduce inflammation and the associated lameness. Intra-articular administration of 70% ethyl alcohol has been demonstrated as a non-surgical approach to joint fusion (arthrodesis). Surgical fusion of the affected joint is the most drastic but most effective treatment option for high ringbone; however financial constraints and age of affected animals makes surgical correction limiting. Fusion inhibits the motion, and thus pain, associated with osteoarthritis and can occur naturally; but that process is often long and not guaranteed.