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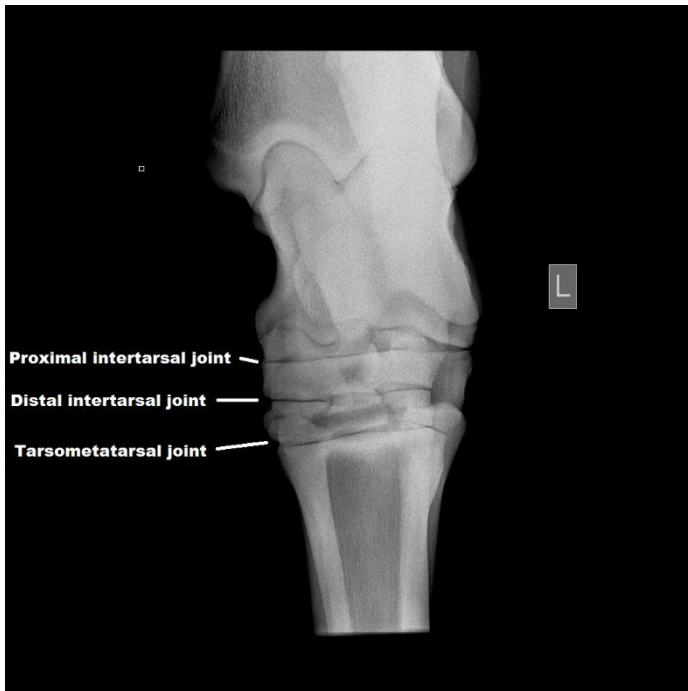
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## Small tarsal joint disease – hock osteoarthritis



Disease associated with the small tarsal joints is common in all ages of horses and ponies, not just those in their teens. There are three small tarsal joints located in the lower part of the hock which have a role in shock absorption. Due to the pressures put through the leg in ridden work, they are commonly subject to wear and tear of the cartilage lining of the joint. Damage to the cartilage releases proteins into the joint fluid which in turn stimulate the joint lining leading to inflammation (synovitis). This process is in itself painful and nerve endings within the cartilage are also exposed when there is damage and this adds to the pain. As the cartilage is less able to perform its function, some of the stresses pass through to the underlying bone (subcondral bone). The bone cells react by initially thinning with bone resorption, then a type of scar bone is laid down - this is termed subchondral sclerosis.

There are often no external signs of early joint damage and horses may only be slightly lame. If both hind limbs are involved they may present with a reluctance to go forwards or a reduction in performance.

Diagnosis is based on initial clinical presentation and examination followed by intra-articular (joint) blocks with local anaesthetic to localise lameness to those joints. Radiographs are helpful to establish the types of processes going on but changes within the joints are poorly correlated with how the lame the horse is, so often x-rays alone are not enough for diagnosis. If diagnosis is unclear, then gamma scintigraphy scans can be used but these are expensive and only show us that the bone is active, it does not tell us if the joint is painful.

Treatment is broad ranging but can be highly effective. Often a combination of treatments is recommended to tackle several components of the disease process.

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### Intra-articular medications (joint injections).

Many cases will receive corticosteroids into the joints. Steroids are potent anti-inflammatory drugs and as we know that the synovitis process causes pain, we can often eliminate the lameness effectively by these drugs. Unlike other joints, we are not as worried about further damage to the cartilage as many horses will ultimately fuse their joints with no detriment to the horse's movement. Steroids are safe drugs but can be of concern in horses prone to laminitis.

Ethanol injections into the joints act to desensitize the exposed nerve endings so stopping the transmission of pain to the brain. This allows the horse to work pain free and ultimately the horse will fuse the joint. This treatment is highly effective and we have had very good success rates. It is a one off treatment for each joint. It must be performed under close radiographic guidance using contrast dye so that we can see exactly where it is going into the joints. There are very few side effects and horses are often sound within days.



### Systemic medication

Equidronate (also known as Tildren) is a drug which reduces the bone thinning so reduces subchondral sclerosis. Reducing this bone turnover slows progression of the disease as well as reducing pain. This drug is given via an intravenous catheter in neck but does have a form that can be given into the muscle. Non steroidal anti-inflammatory drugs - bute and associated drugs, act by reducing inflammation as well as directly relieving pain. They are useful and often form a part of many of our treatment programs.

### Supplements

Joint supplements are sometimes controversial but we advise the use of one containing hyaluronic acid in addition to the usual glucosamine and chondroitin. We also advocate the use of non-marine chondroitin for ecological reasons as well as efficacy.

Equitop myoplast is a highly effective amino acid muscle builder which will often form part of our program as muscle wastage and weakness is common with lameness conditions.

Devils claw - Harpagophytum has been shown to reduce clinical signs. This has recently been added to the controlled list for FEI and so is no longer viewed in the same group as supplements.

### Other associated conditions.

We commonly see other areas of the body affected the sacroiliac region due to alterations in gait over time and the back generally. In older horses we may see an association with neck pain and degenerative changes in the joints of the neck. These will all be assessed in the initial examination as well as at ongoing rechecks.

### Rehabilitation Programs

All horses will be given a tailored rehabilitation program with exercises, stretches, work load and rechecks all explained. This part of the treatment program is pivotal for the success of recovery. Programs are often a lot quicker than people expect and many horses do not require any significant break from work.

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