

COMMON CALCANEAL TENDONOPATHY



You've heard about knobby knees, but how about knobby heels? No? Then here is the orthopedic condition for you! It is not a very fun one, and as a surgeon, I'll probably be passing you straight away on to a physical therapist, but common enough to need to know about it.

It is most commonly seen in Labradors, Dobermans and Pointers. They tend to be overweight dogs (add one more to the list of self-induced pathologies) and usually knuckleheads with lots of energy. They will likely present acutely, but this is a chronic repetitive stress injury. What you will see on exam is a rearlimb lameness, grade 3 to 5 out of 5. They will have a firm, knobby heel and thick, firm common calcaneal (Achilles) tendon distally near its insertion. If the integrity of the tendon is significantly compromised, you will see hyperflexed, bunched up toes and a slightly dropped hock (if they are putting any weight on the limb). This last finding is related to the fact that the superficial digital flexor (SDF) tendon is not generally involved; it does not insert on the calcaneus, but rather courses over the caudal aspect down to flex the toes. When the hock drops, the SDF tendon is stretched across the back of the heel and the toes hyperflex inappropriately and often painfully. If enough time passes, those toes do not straighten out!

If you pay attention to the hock on all radiographs you take of the rearlimb, you will catch some of these kids prior to clinical significance (prophylactic treatment might save some later frustration!) Early in the course, you will see small mineralized densities at/within the distal aspect of the common calcaneal tendon; close inspection and comparison with a normal side (these are often bilateral, so...) you will see that the tendon is thicker and denser. As the condition progresses, bony proliferations develop on the proximal





calcaneus. Generally speaking, the zone looks like a developing snowstorm, and we all know what those look like.

How to make these dogs whole is a tricky game. In order of importance, there are two things that need to happen. One, the integrity of the hock/Achilles mechanism needs to be preserved urgently. This means a splint or brace/orthotic. In markedly separated tendons, surgical debridement and shortening may make sense. **Diagnostic ultrasound**, in the right hands, can help immensely in characterizing the gap, fiber disruption, and overall tendonopathy sufficient to offer insight into prognosis and therapeutic recommendations.

And two, the tendon fibers need to reorganize and fibrous healing needs to take over the strength of the Achilles mechanism. This takes a long time, requires staged stressing of the healing tissues, and may be helped by some of the newer interventions like platelet rich plasma (PRP) injections, cold laser, therapeutic ultrasound. Creative and custom orthotics can now offer dynamic adjustments as healing progresses, improving the process with fewer setbacks and catastrophic tendon failures.

Have a wonderful warm and sunny June!

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