

## What would you do?

How do you approach a canine patient with a torn cruciate (ACL) that also has hip dysplasia?

TailWind Veterinary Surgical Care surgeons are regularly asked about this clinical scenario.

We are asked:

Does it make sense to fix the cruciate (ACL) with bad hips?

Do we need to fix the hip at the same time? In the future?

Which do we fix first? Does my dog need both fixed?

*The shortest possible answer to this is: We always recommend 'fixing the fixable' and we almost always recommend beginning with the joint closest to the ground FIRST. In other words, 'yes' fix the knee, we will tackle the hip after the knee is healed and only if we need to!*

How the dogs show up

Many dogs present with a lameness that on the surface seems to be 'acute'. This is a lameness that comes out of nowhere, without warning and with seemingly no history of previous episodes of lameness to suggest something was amiss. As importantly, and alternatively, some dogs will present with a sometimes subtle, waxing and waning lameness (weeks to even months) that seems to **'suddenly'** get worse.

Once these pets are sedated for films at their primary care veterinarian, it is common to radiograph (x-ray) more than just the joint that is suspected to be giving the pet trouble. Why? Because multi-level joint disease in the dog is common! We surgeons at TailWind VSC will commonly see films for consultation and pets referred in that have degenerative changes in more than one joint of the same leg (e.g. both the hock and stifle, both the hip and stifle, both the elbow and shoulder, lumbar spine and the knee) – and it is true that it can be difficult in some patients to discern which of the several 'bad' joints is the proverbial 'apple that disturbed the cart'. In other words, the joint that went bad that provoked the need for medical care.

'Apple that disturbed the Cart'

This is a particularly helpful, insightful – and descriptive phrase to really highlight the importance of what we mean by – performing a complete and thorough orthopedic examination. Each limb, like the cart, is capable and responsible for carrying its share of the 'apple load'. The 'apple load' is loosely described in terms of body weight the limb is carrying and the athletic activity the dog participates in. So, it might be obvious, that the dog has four legs and multiple joints to spread 'load' onto. When one, or more, joints are hampered by injury, or developmental abnormalities (hip/elbow dysplasia) the pet will simply biomechanically shift the load onto other joints, and even other limbs. This 'redistribution' can and does commonly occur without us being able to truly tell without years of experience that something is not working normally.

In the case of bilateral hip dysplasia, absent of any other condition, when pet owners are told their dog has dysplasia will commonly say "I thought that was just the way she walked/ran". This highlights several key ideas: Chronic conditions can be hidden by small adjustments in load distribution, adaption to some

conditions can occur without a major deterioration in ability and use of the limbs, and conditions that are below the radar can become more 'obvious' (disturbance in the apple cart) with the addition of anything new to mix. It should be noted that the lameness that can be witnessed can be very remarkable – and this is truly the single apple that disturbs the whole cart.

#### What we see

We see many dogs annually for consultation of hip dysplasia and for consideration of hip replacement. As part of our regular work-up for these dogs, we screen all the other joints for disease – and if we find disease in other joints (eg a torn ACL) we fix that first, rehabilitate that first and then re-evaluate the dog for the need of a total hip replacement. Our experience suggests, that dogs presenting for hip replacement that also have torn ACL's – *rarely*, if ever, return for a hip replacement after their knee is corrected. So, the question becomes: what happened to the hips? Did they become 'normal' after the knee was corrected? No! The correction of the knee simply made the pet capable of carrying its load, albeit, without normal hips in a manner in which they were capable of performing at an acceptable, athletic capacity. The cart was capable of carrying those apples, just NOT the apples associated with a concurrent, non-corrected torn ACL.

#### Further logic

As an important aside and consideration, it should be pointed out that it is very rare for a chronic condition (months/years) like hip dysplasia to present to the clinic as 'suddenly' worse – especially worse to the point of being non-weight bearing. Yes, there are important exceptions to this, but suffice to say those are NOT the rule. It is also important to point out that a 6y old dog coming in with hip dysplasia has never, not in 6y, ever NOT had hip dysplasia. Hip dysplasia begins to manifest in the earliest weeks of life, and is a chronic developmental condition – therefore, having a bad set of hips, and a seemingly acute form of lameness truly causes an orthopedic clinician to continue to look for the apple that disturbed the cart – in other words, the NEW condition that has created a failure in the pet's ability to function on the limb. In most cases: this is a torn ACL.

#### Concluding logic

So it might seem odd to focus on one thing, when there may be more than one to fix? But, the methodology that seems to play out on the clinic floor is to fix the fixable – fix the newest problem, and it seems to fall to reason, and it's frankly something we see, that the other chronic condition falls into the background, and become manageable to the pet – perhaps with some proper weight control, conditioning and medication, but manageable none-the-less.

#### Finally

Does it make sense to fix the cruciate (ACL) with bad hips? YES!

Do we need to fix the hip at the same time? NO! In the future? Perhaps, but we can revisit that as needed!

Which do we fix first? **Always** the knee first! Does my dog need both fixed? Some frankly do!