

Tibial Tuberosity Advancement / Modified Maquet Procedure

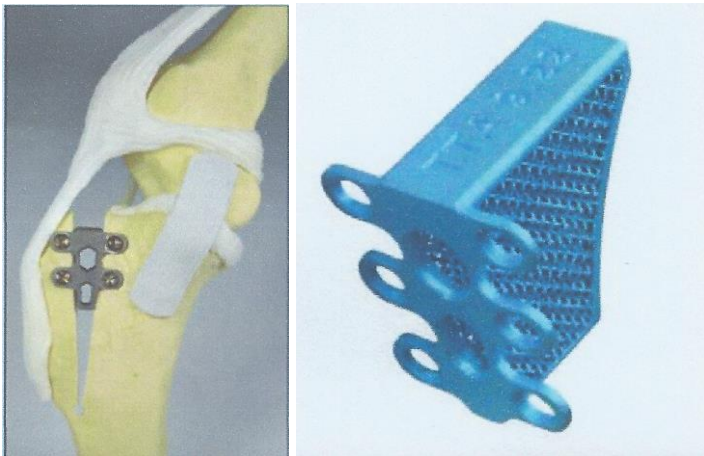
Tearing/rupture of the cranial cruciate ligament (CCL; equivalent to human ACL/anterior cruciate ligament) is one of the most common causes of hind limb lameness in dogs.

This article focuses on the above procedure: For further discussion of Cranial Cruciate Ligament disease please see the [ACVS website article](#).

There are numerous medical and surgical therapies for CCL rupture, as well as various rehabilitation (“physical therapy”) options.

In my experience, patients with surgical therapy recover more quickly and completely than with non-surgical therapy; and patients with bone-altering surgeries (such as TTA/Tibial Tuberosity Advancement and TPLO/Tibial Plateau Leveling Osteotomy) recover more consistently and completely than those with suture stabilization techniques.

A further modification Tibial Tuberosity Advancement procedure, incorporating the Modified Maquet Technique and using the TTA Rapid implants, is the ideal option in my experience for pets of any size.



Advantages:

- The bone is only partially cut
 - Distal (lower) cortex (hard outer bone layer) remains intact
 - Increased stability
 - Improved blood supply
 - More rapid healing time
- Improved cage
 - More screws stabilizing each side of the cut bone
 - Two per side in medium dogs
 - Three per side in large dogs
 - Honeycomb patterns enhances bone in-growth
- Fewer Implants
 - Improved cage and incomplete cut eliminates need for plate and fork

- Less-invasive
 - Involves only the tuberosity (Top/front of the tibia)
 - No screws in weight-bearing portion of bone
- Shorter surgery time
 - Smaller surgical approach
 - Fewer implants to place

TTA Rapid images courtesy of Veterinary Instrumentation. For additional information, see <http://www.veterinary-instrumentation.co.uk/pages.php?pageid=465>

Other images courtesy of the [American College of Veterinary Surgeons](#); for further information please see the [ACVS page on cranial cruciate ligament disease](#) (though please note that the discussion of the TTA on that page refers only to the original procedure, and not the TTA Rapid/Modified Maquet procedure, which I perform)