Christopher J. Franklin, D.V.M.
Ashley Robinson, D.V.M.

San Juan Veterinary Clinic

Teresa Petterson, D.V.M.
Justin Green, D.V.M.

822 Spring Creek Road · Montrose, CO 81403
Telephone (970) 249-4490 · Fax (970) 240-4580

# Cranial Cruciate ("ACL") Repair Information Sheet

There are two cruciate ligaments, "cranial" and "caudal". These ligaments help to stabilize the stifle ( "knee") joint by preventing the movement or displacement of the tibia and fibula during weight bearing. Injuries to the ligaments stabilizing the stifle, are common in active pets or overweight pets. There are some breeds of dogs that seem to be predisposed to this type of injury. This injury is diagnosed by a thorough examination, palpation of the joints, and observing the pet walk. X-rays are also very helpful in the identification of the type of injury. Most pets who receive surgical treatment, will have a good to excellent return to function. All pets with this injury are expected to develop some degree of arthritis. The severity of arthritis is much worse and occurs much sooner in those pets who do not receive surgical treatment.

In the veterinary medical literature there have been many described surgical repairs for this type of injury. At this time, most surgical specialists are advocating two procedures. For medium to large breed dogs a **Tibial Plateau Leveling Osteotomy** ("**TPLO**") is the most ideal procedure. For smaller pets an **Extra-Capsular De Angelis** procedure is used. Both procedures involve a thorough exploration of the joint with the assessment and removal of damaged tissue. The difference between the procedures is in their approach to correction of the instability problem in the joint.

The **TPLO** is a more recent and innovative approach to correcting cranial cruciate ligament injuries. This procedure eliminates the need for a cruciate ligament by creating a curved cut in the tibia (your "shin bone") and rotating the top of the tibia to a predetermined angle. A specialized bone plate is then used to stabilize the tibial plateau at the new angle. By modifying the angle of the tibia the weight bearing surface is adjusted to create a more stable joint. It is believed that the angle of the tibia predisposes some dogs to rupture this ligament.

The **De Angelis** procedure has been utilized for many years. This procedure involves the placement of a permanent plastic suture material to act like the cranial cruciate ligament in preventing the forward movement of the tibia during weight bearing.

When considering surgery here are a few factors to take into account:

1. No treatment will be effective without your dedication and your pet's cooperation.
2. Physical therapy, controlled activity and following all instructions are imperative for the best possible outcome.
3. The amount of time you have to help with your pets rehabilitation regime.
4. All surgeries have an inherent risk of complications.
5. The type of activities you and your pet enjoy. (e.g. hiking, running, etc.)
6. Cost of the procedure.

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| In general: | **TPLO surgery** | -has less rehab exercises to perform<br>-is more "forgiving" of those that don't "follow the rules"<br>-may have a faster return to function<br>-may have a more complete healing<br>-may potentially have less scar tissue and DJD<br>-requires a 6 week post-op x-ray, possibly requiring sedation<br>-is considerably more expensive |
| | **De Angelis Surgery** | **-**has more rehab exercises to perform<br>**-**is dependent on owner and pet compliance<br>-may have a slower return to function<br>-may have more scar tissue form around the joint<br>-is considerably less expensive |

It is imperative to consider risks and benefits of both procedures prior to scheduling surgery. It is important to consider the other joints and understand that they may be adversely affected during the recovery period. Many patients benefit from long term supplements for joint health and intermittent use of anti-inflammatory medications.