

Tibial Plateau Leveling Osteotomy

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There have been numerous surgical techniques developed over the past 30 years. The most recently developed and most promising techniques for restoring normal limb use involve tibial osteotomy (bone cutting). The osteotomy techniques alter the weightbearing forces acting at the stifle. Instead of repairing the CCL, these techniques focus on eliminating the need for the CCL. Tibial plateau leveling osteotomy (TPLO) and tibial tuberosity advancement (TTA) and are the two most commonly performed tibial osteotomy techniques.

TPLO was developed in the early 1990s, and in recent years it has become an increasingly popular technique. Initially developed for large breed dogs, TPLO is now performed in dogs (and some cats) of all sizes. With this surgery, the cranial cruciate ligament is not repaired. Instead, the tibial plateau (the part of the tibia just below the stifle) is repositioned to counteract the instability which occurs following the cruciate ligament injury. A specially designed bone plate with screws is used to hold the bone in the new position until healing occurs. While the surgery is more involved than previous repair techniques, patient comfort is very good during recovery. Also, most dogs will become weight bearing on the leg sooner after TPLO compared to older methods of repair.

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Strict rest is required following surgery to allow for proper healing of the tibia. Initially, there should be no running, jumping, or playing. After the first month of strict rest, a gradual introduction of controlled activity is performed until 3 months following surgery. Physical therapy is also performed to improve the speed of healing. In the weeks following surgery, x-rays are taken to assess healing of the tibia.



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