

Judy's story.

Judy was referred (from another veterinary practice) following the development of left hind limb lameness. On examination Judy was 4/10 lame, the stifle (knee joint) was swollen and painful. It was possible to rock the tibia (shin bone) back and forwards against the femur (thigh bone). This is called a cranial (forward) drawer movement and indicates a rupture of the cranial cruciate ligament within the stifle joint. This makes the stifle very unstable and creates a feeling of collapse every time the patient tries to walk on the affected limb. The leg becomes chronically weak and painful and progression into arthritis is inevitable.

Surgical treatment provides a much better short and long-term outcome for most patients. The aim of surgery is to stabilise the joint when the patient walks and thus minimise pain and weakness and, hopefully, limit the arthritic development. Surgery can be broadly split into “conventional techniques” that replace the ligament with grafts, stabilising sutures, etc and “newer techniques” that change the anatomy of the joint to reduce the forces on the bones. This reduced force can then be controlled by the dog's muscles without the need for a cruciate ligament (or a replacement). The newer techniques are considered to provide a much better degree of joint stabilisation and thus better function and much less arthritic development and progression. The most widely used of these techniques is called tibial plateau levelling osteotomy (TPLO) surgery.

During the tibial plateau levelling osteotomy procedure the top of the tibia is cut in a curved fashion with a specially designed bone saw. The small fragment that is created is rotated to change the angle of the tibial plateau relative to the long axis of the tibia. The plateau is levelled (hence the name tibial plateau levelling osteotomy (the last word meaning to “cut bone”). The small fragment is held in its new position by a specially designed plate and screws whilst the osteotomy heals. In effect the surgeon creates a fracture in the top of the tibia and makes the bone heal in a new position. This new position changes (reduces) the forces in the stifle joint such that the patient's muscles are now strong enough to control the instability.

Judy underwent a TPLO procedure on her left hind limb. She recovered well from the operation and after overnight care was discharged the following morning. She was asked to have strict rest for 10 days and was then allowed lead exercise that was gradually build-up over the next 12 weeks. Judy came back for routine follow-up radiographs at the 4 and 12 week stage. These showed that the bone was healing well and at the 12 week stage she was able to carefully return to full exercise. There have been no on-going problems and Judy is now back to her happy self.



Cruciate ligament rupture is the commonest cause of hind limb lameness in adult dogs. If left untreated the stifle joint will become chronically unstable and arthritic. Early diagnosis and surgical treatment provides the best outcome for this debilitating condition.

