

Patellar Luxation – What to Know & Expect

The patella is a small bone at the front of the stifle (knee joint). A luxation, or dislocation, is when the patella slips out of the groove at the end of the thigh bone (femur) as the stifle flexes and extends. Bowing of the femur and/or tibia may also cause patellar luxation; therefore, sometimes straightening of these bones is required.

Although associated with the osteoarthritis within the stifle, luxation may be associated with a cranial cruciate ligament rupture. Refer to our [Cranial Cruciate Ligament Rupture Fact Sheet](#) for further information.

Symptoms: The symptoms can be quite variable. A ‘skipping’ action with the hind leg being carried for a few steps is typical as the patella slips out and in the groove. Lameness and difficulty walking are common if both patella luxate.

Preparation: Read our [Client Preparation Guide](#) and [Sedation and Anesthetic Fact Sheet](#). We also recommend our clients become familiar with our [Terms and Conditions](#).

Diagnosis: Examination may reveal muscle wastage (atrophy), especially over the front of the thigh, although this is often minimal. Manipulation of the stifle joint may detect patellar instability. In some cases, the patella is permanently out of the groove. Luxation is graded from 1 to 4, with a 4 being the most severe. X-rays are necessary to assess the shape of the femur and tibia (knee) and presence/severity of osteoarthritis.

Treatment: Patellar luxation may be managed satisfactorily without surgery in small dogs and/or mild luxation (grade 1). Exercise may need to be restricted. Dogs that are overweight benefit from being placed on a diet. However, the luxation may progress and require one of the following surgical procedures:

- **Tibial Tuberosity Transposition Surgery** moves a small piece of bone (tibial tuberosity) at the top of the tibia that is attached to the patella and reposition it so that the patella is correctly aligned with the groove in the femur. The transposed piece of bone is re-attached with small pins, with or without additional support with a figure-8 wire.
- **Trochlea (Groove) Deepening Surgery** deepens the groove (trochlea) at the end of the femur by removing a block or wedge of bone and cartilage from the groove, deepening the base, and replacing the block or wedge. Referred to as ‘recession’ techniques, they recess the groove, while preserving the cartilage of the groove.
- **Joint Capsule Imbrication Surgery** tightens the joint capsule with suture to assist the patella alignment when the lateral (outside) section of the joint capsule becomes stretched.
- **Femoral and/or Tibial Osteotomy Surgery** involves changing the shape of the deformed femur and/or tibia by cutting it just above or below the stifle and stabilizing it in a new position with a plate and screws.

Aftercare: Discharge instructions will depend on the type surgery performed and nature of the patient. It is very important to follow the provided post-op instructions. Medications are prescribed and exercise is very restricted during recovery. Dogs must be on a lead or harness for toilet purposes to prevent strenuous activity. Confinement to a kennel or small room may be necessary to deter jumping/climbing. Post-op progress evaluations with the surgeon are imperative. At two weeks, the wound will be assessed. At four weeks, x-rays are obtained to evaluate bone healing. Depending on progress, advice is given regarding increasing exercise. Exercise may be gradually increased in a controlled manner (still on a lead). Further clinical and radiographic examination may be necessary to confirm successful recovery.