

Patellar Luxation in Dogs

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Patella luxation, or knee dislocation, can range in severity from a patella that can be luxated (dislocated) only in extreme extension and then snaps readily into place, to a patella that is permanently luxated medially (toward the center of the dog's body). One of the causes of patella luxation is an abnormal shape of the distal end of the femur, resulting in a shallow patellar groove. The other major cause is a displacement of the quadriceps tendon's attachment to the tibia, so that the patella is displaced medially when the quadriceps muscle is flexed.

The tendency to luxate to the medial side causes a transient lameness, at least until the patella returns to its normal position, if it is able to. The extent of patella luxation increases with time as the femur's trochlear groove becomes flatter and flatter, as increased bowing of the leg takes place, and as the structures of the stifle joint weaken. Continued deformity of the joint results in degenerative joint disease, pain, and decreased mobility.

This condition can be genetic, but not all cases are. Some breeds have a higher incidence than others. Breeds known to have this condition include:

- Affenpinscher
- Brussels Griffon
- Chihuahua
- English Toy Spaniel
- Greyhound
- Japanese Spaniel
- Maltese
- Manchester Terrier
- Miniature Pinscher
- Papillion
- Pekingese
- Pomeranian
- Poodle
- Pug
- Shih Tzu
- Silky Terrier
- Yorkshire Terrier

Patellar luxation is a common condition. **Four** grades of dislocation are recognized:

- **Grade 1:** The patella luxates with manual pressure and returns spontaneously.
- **Grade 2:** The patella luxates with flexion and extension of the joint, but returns to the trochlear groove spontaneously. Some lameness may be present.
- **Grade 3:** The patella luxates with flexion and extension of the joint, but can be reduced manually. Considerable lameness exists.

- **Grade 4:** The patella is permanently luxated to the medial side. The limb or limbs are unable to extend and the animal walks balancing its weight on the forelimbs.

Treatment in mild cases may include exercise restriction, non-steroidal anti-inflammatories (NSAIDs), polysulfated glycosaminoglycans, glucosamine/chondroitin sulfate (Cosequin), and weight reduction in obese dogs. The addition of surgery to the treatment regimen is usually indicated in severe cases, and may benefit mild cases also.