



BRIARPOINTE VETERINARY CLINIC

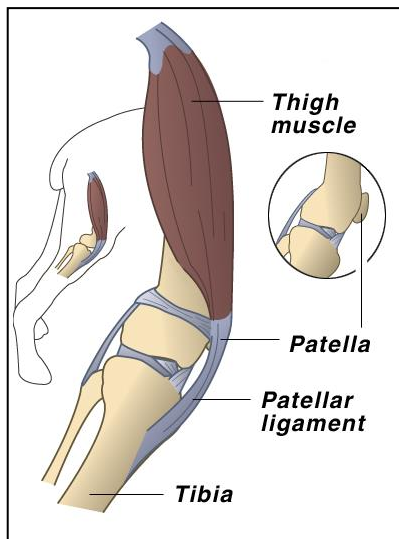
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LUXATING PATELLA

What is a luxating patella?

The patella, or knee cap, is normally located in the center of the knee joint. The term *luxating* means “out of place” or “dislocated”. Therefore, a luxating patella is a knee cap that moves out of its normal location.



What causes a patellar luxation?

The muscles of the thigh attach to the top of the knee cap. There is a ligament, the *patellar ligament*, running from the bottom of the knee cap to a point on the tibia (the bone in the lower leg) just below the knee joint. When the thigh muscles contract, force is transmitted through the patella and patellar ligament to a point on the top of the tibia. This results in extension or straightening of the knee. The patella stays in the center of the leg because the point of attachment of the patellar ligament is on the midline and because the patella slides in a groove on the lower end of the femur (the bone between the knee and the hip) called the *trochlear groove*.

The patella usually luxates because the point of attachment of the patellar ligament is not on the midline of the tibia. It is almost always located too far medial (toward the middle of the body). As the thigh muscles contract, the force is pulled medially or to the inside of the knee. After several months or years of this abnormal movement, the inner side of the trochlear groove in the femur wears down. Once the side of the groove wears down, the patella is then free to dislocate. When this occurs, the dog has difficulty bearing weight on the leg. It may learn how to kick the leg and snap the patella back into its normal location. However, because the side of the groove is gone, it dislocates again easily.

Many dogs also have a shallow patellar groove in addition to the deviation of the attachment of the patellar ligament, which can cause problems even before the groove starts to wear down.

Does a luxating patella cause any long-term problems for my dog?

Some dogs can tolerate this problem for many years, even for all of their lives. However, this weakness in the knee predisposes the knee to other injuries, especially torn cruciate ligaments. With advancing age, arthritic changes may take place in the joint, causing pain.

Can a luxating patella be corrected?

Surgery should be performed if your dog has a persistent lameness or if other knee injuries occur secondary to the luxating patella.

Surgical repair involves three steps:

- 1) The point of attachment of the patellar ligament is cut from the bone and transplanted to its proper location.
- 2) The groove in the femur is deepened so the patella will stay in place.
- 3) The capsule around the joint is tightened. When the patella luxates, the joint capsule stretches. Tightening it helps to prevent the patella from luxating again.

If the surgery is performed before arthritis occurs, the prognosis is excellent. Your dog should regain full use of its leg. However, if arthritis has already occurred, your dog will often experience intermittent pain in the joint. Long term anti-inflammatory medications are used to help insure your pet remains pain-free.

Edited by John S. Parker, DVM October, 2007
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