

## LUXATING PATELLA

### *What is a luxating patella?*

The patella, or knee cap, should be 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 this to occur?*

The muscles of the thigh attach directly or indirectly 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 just below the knee joint. When the thigh muscles contract, the force is transmitted through the patella and through the patellar ligament to a point on the top of the tibia. This results in extension (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).

The patella 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 medial. After several months or years of this abnormal movement, the inner side of the 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.

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

Some dogs can tolerate this problem for many years, some 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 resulting in pain for the dog.

### *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 is a three step process; however, all three are done in one operation. 1) The point of attachment of the patellar ligament is cut from the bone and transplanted to its proper location. This corrects the alignment problem. 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 also 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 experience pain in the joint, especially in cold weather.