MASH
MELBOURNE ANIMAL SPECIALIST HOSPITAL

Understanding Your Diagnosis
Patella Luxation

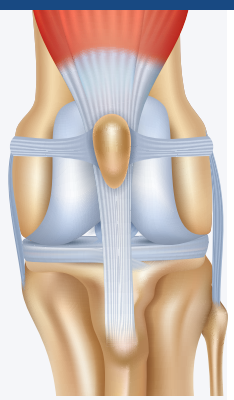
Patella Luxation is a medical term that means dislocating kneecap. This commonly occurs in dogs and is due to mild-to-marked skeletal abnormalities that create a mismatch between the quadriceps muscle and the underlying femur (thigh bone).

The patella (kneecap) is a small bone that lies within the quadriceps muscle. The quadriceps muscle is a large muscle mass that starts near the hip and ends on a bony tuberosity on the top of the tibia (shin bone). In a normal dog the patella slides up and down a groove in the bottom of the femur and works like a pulley as the muscle passes over the stifle (knee) joint.

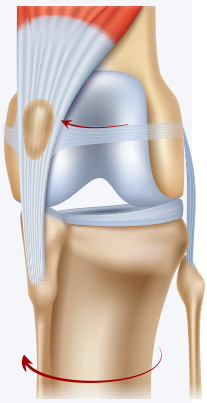
In dogs with patella luxation the groove in the bottom of the femur does not line up with the position of the patella and so there is a tendency for the patella to "jump the tracks" and dislocate. This locks the stifle joint, just like the rope jumping the tracks in a pulley would jam the pulley.

This often causes a "skipping" lameness, where the patella dislocates and locks the stifle in flexion for a few steps, causing a brief non-weight-bearing lameness. After a few steps the patella returns to the groove and the lameness is resolved until the next time the patella dislocates.

This brief dislocation does not appear to be particularly painful for the affected dog. However, the abnormal motion will cause irreversible cartilage wear and arthritis, as well as predisposing to other orthopaedic conditions such as cranial cruciate ligament disease. Therefore, we recommend surgical correction for all clinically affected dogs.



Normal knee anatomy



Luxating patella

Surgery is aimed at realigning the skeleton, so the dislocation occurs much less frequently or not at all. The exact combination of procedures will be tailored to your pet. Frequently considered procedures include:

SULCOPLASTY	This is a procedure to deepen the groove that the patella sits in, whilst preserving articular cartilage. Virtually all affected patients will have this procedure
TIBIAL CREST TRANSPOSITION	This involves cutting off the bony tuberosity that is the insertion of the quadriceps muscle and moving it across so that it lies directly beneath the groove in the bottom of the femur. The bony tuberosity is then stabilised in its new position with pins and wire. Again, virtually all clinically affected patients will require this procedure.
SOFT TISSUE BALANCING	When the patella dislocates it stretches the soft tissues around the joint. When we correct the patella luxation, we tighten these stretched tissues to further stabilise the position of the patella in the groove.
DISTAL FEMORAL OSTEOTOMY	In some dogs, especially larger dogs, there may be some curvature of the femur itself which creates significant mismatch between the patella and the groove in the femur. In order to correct this, we must cut the femur and straighten the bone to remove the curvature and align the patella with the groove. Fortunately, this procedure is only required in a minority of cases.

Phone 1800 838 787 **Email** info@mashvet.com.au **Web** www.mashvet.com.au

MASH