Luxating patella

Owners of some dogs may notice that they often 'hop' on one of their back legs carrying the other. This strange behaviour may be caused by an unstable kneecap or 'patella'. Although most common in small breeds of dog any breed of dog can be affected. Most dogs show clinical signs of lameness less than one year of age. The condition can be mild and occasionally can be managed conservatively but the majority of animals will need an operation to correct the problem if they are to have a normal, active life.

What is a luxating patella?

In a normal animal the patella or kneecap sits neatly in a groove on the bottom of the thigh bone. When an animal bends its knee the patella slides up and down this groove held in place by a ligament and the sides of the groove. Luxation of the patella means that the kneecap jumps out of the groove and slides to one side or the other. This causes the leg to 'lock up' and the leg becomes painful and difficult to bend. Sometimes the patella jumps out and then back into the groove resulting in on and off lameness, however in some cases the patella is permanently out of the groove resulting in lameness all the time.

Why does my dog have a luxating patella?

Some animals are born with a groove that is too shallow or a ligament that attaches in the wrong place on the shin bone, pulling the patella out of the groove as the knee bends. Sometimes only one knee is involved, but in around half of cases both knees are affected. A patella luxation can also occur after an injury to the knee where the soft tissues of the knee that support the patella are damaged.

Patellar luxation is most often seen in toy and miniature dog breeds, particularly Poodles, Yorkshire Terriers, Pomeranians, Pekingese, Chihuahuas, Miniature Pinschers and Boston Terriers. The condition can be passed on through the generations so affected dogs should not be allowed to breed. Patella luxation is much less common in cats, but may be under-diagnosed as most affected cats are not lame.

How do I know if my pet has a luxating patella?

In small breeds of dog the first sign noticed by owners is that the dog often hops on one of their hind legs, carrying the other (especially when running). Most dogs are young-middle aged, with a history of lameness that comes and goes. If the patella always flips out of its groove when the leg is bent the animal will tend to carry most of its weight on its front legs when running. An animal with a luxating patella might find it difficult to jump. In some cases the patella cannot be put back into the correct position - if this happens the animal is lame all the time, the muscles in the leg may start to shorten and waste and the leg will not straighten properly.

If patella luxation remains untreated arthritis will often develop and this may be associated with permanent lameness and pain.

How will my vet know what is wrong?
Your vet will be able to feel the patella moving in and out of its groove by examining your pet. X-rays can help to determine how severe the condition is, whether there are any concurrent problems affecting the knee as well as whether your pet has developed arthritis.

How can it be treated?

In a few animals the disease does not cause significant problems and animals may go through their whole life without needing any treatment. However, weakness and instability in the knee may make the animal more prone to other knee injuries.

Your vet will recommend the best treatment for your pet. In mild conditions no treatment may be necessary. If the patella is periodically or always luxated, if your pet is lame, or they develop other knee ligament injuries at the same time then surgery is the best option.

The aim of surgery is to stabilise the patella in its groove to allow normal limb function. Surgery can deepen the groove that the patella sits in or the ligament attached to the patella can be repositioned to make it pull more in the right direction.

How soon will my pet recover after surgery?

Most pets will begin to touch their toe to the ground again by 10-14 days after surgery and should be using the leg well within 2-3 months. Strict exercise restriction after surgery with a controlled re-introduction to lead exercise is imperative. Regular post operative appointments are important to assess that the knee is healing, the patella remains within its groove, and that your dog is using their leg as expected.

Your vet will recommend physiotherapy exercise for the knee soon after surgery. Exercise must be restricted for the first 8 weeks after surgery, failure to do this may result in the surgery failing and further surgery being required.

How successful is surgery?

The outcome following surgery is generally good in uncomplicated cases, with 9 out of 10 dogs regaining good use of their limb in about 12 weeks. Arthritis maybe present in some cases and this can manifest in some leg stiffness on waking and lameness after prolonged exercise.