

# Patellar Luxation

- Patellar luxation occurs when the pet's patella (kneecap) slips out of its normal position on the femur bone, causing pain, lameness, and instability in the knee.
- Severity of patellar luxation is graded on a scale of 1 to 4.
- Surgical correction may be recommended.
- Failure to treat patellar luxation can result in arthritis and lead to other orthopedic problems.

### What Is Patellar Luxation?

Normally, the patella (kneecap) sits in a groove at the bottom of the femur (the major bone of the upper leg), where the femur and tibia (the major bone of the lower leg) meet at the knee. The patella is held in place by tendons and ligaments that keep it relatively stable against the femur. Patellar luxation occurs when your pet's patella luxates from (slips out of) its normal position. The kneecap can slip to either the inside (medial patellar luxation) or the outside (lateral patellar luxation) of the femur.

Patellar luxation can occur in one or both knees, and many dog breeds can be affected. Cats can also be affected, but not as commonly as dogs. Patellar luxation may be linked to an inherited abnormality or caused by injury or trauma.

### What Are the Signs of Patellar Luxation?

Clinical signs associated with patellar luxation may not be obvious. However, one of the classic signs is a characteristic "skipping" gait. Pets will occasionally appear to "skip" as they hold the affected leg up while walking or running. A playing pet may suddenly yip in pain when the luxation occurs and then hold the leg up while continuing to run or play. These episodes can last for a few strides to a few minutes. In more severe cases, pets may remain painful for days.

The severity of patellar luxation is graded on a scale of 1 to 4:

- **Grade 1**—The patella easily and frequently pops out of its groove and then immediately pops back in.
- **Grade 2**—The patella pops out of normal position but doesn't immediately go back. It must be replaced by pushing it back into normal position.
- **Grade 3**—The patella is out of normal position most of the time. If it is replaced by pushing it back into position, it will immediately pop out again.
- **Grade 4**—The patella is out of normal position and locked in this luxated position; it cannot be manipulated back into its groove.

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The grade of patellar luxation does not necessarily correspond to the dog's degree of lameness. For example, a dog with a grade 1 or 2 luxation may be lame or may seem to walk completely normally, while a dog with a grade 4 luxation may have figured out how to change his or her gait so that the knee is not painful. In this case, lameness may not be obvious.

### How Is Patellar Luxation Diagnosed?

Patellar luxation is sometimes diagnosed during a routine physical examination when a veterinarian feels the knee joint. If the dog is very painful, sedation may be recommended so that a more thorough examination of the knee can be safely performed.

Radiographs (x-rays) are sometimes recommended to further evaluate the kneecap and other structures in the knee. Because a luxating patella affects the stability of the knee, many dogs with this problem develop arthritis over time. Some of these changes may be visible on x-rays.

## Common Conditions

### How Is Patellar Luxation Treated?

Pets that have been diagnosed with patellar luxation but do not exhibit any clinical signs or that show only occasional signs should be monitored. Maintaining an ideal body weight and following a regular veterinarian-approved exercise program may aid in managing the condition. Joint supplements may be recommended, as well as pain medication for occasional episodes. Unless the condition progresses, surgical correction may not be recommended.

Surgery is typically considered for cases where the degree of lameness is significant. Surgical therapy typically seeks to stabilize the patella in its proper

groove. Several procedures can be used to accomplish this. Your veterinarian will evaluate your pet and recommend the most appropriate procedure. After surgery, it is important to closely follow your veterinarian's instructions regarding limitations on activity and containment to allow the surgical site to heal. Pain medications will be provided as needed, and physical therapy may be recommended.

If left untreated, patellar luxation can result in significant damage to the joint, leading to the development of arthritis and other conditions, such as cruciate ligament rupture.