

Luxating Patellas: What Is It? And What To Do About It?

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How many of you reading this article think luxating patellas really are not a big problem in Cavaliers? If you count yourself in this group, you've got your eyes closed to a health issue which is a recurring problem for Cavaliers as well as many other breeds, notably the toy and miniature dogs.

A kneecap which dislocates can result from a traumatic injury, or it may be a genetic condition which is present at an early age, if not at birth. Dogs who are already genetically predisposed to luxating patellas require a lower amount of force than other dogs to sustain injury.

In Dog Owner's Home Veterinary Handbook by Delbert G. Carlson, D.V.M. and James M. Giffin, M.D., the following description is given:

In dogs the kneecap is a small bone which protects the front of the stifle joint; it is the counterpart of the kneecap in man. It is anchored in place by ligaments, and slides in a groove in the femur.

Conditions which predispose to dislocation of the patella are: a shallow groove; weak ligaments; and mal-alignment of the tendons and muscles that straighten the joint. The patella slips inward or outward.

The signs of a slipped kneecap are difficulty straightening the knee; pain in the stifle; and a limp. The tip of the hock often points outward and the toes inward (the reverse of cow hocks).

The diagnosis is confirmed by manipulating the stifle joint and pushing the kneecap in and out of position.

If your dog has suddenly dislocated a patella, he or she will scream in pain. In Cavaliers you will often see the dog holding its leg up in the air and out to the side. You can manually try and slide the patella back in place, if it hasn't returned to its normal position on its own. As soon as the patella is back in position, the dog will probably stop screaming. According to The Merck Veterinary Manual, Seventh Edition, luxation may occur on an intermittent basis, especially in the congenitally affected small breeds.

George Back, Diane McManus, and Shirley Taylor are Norfolk Terrier owners and breeders who in November, 1996, posted information on the internet which they had researched on patellar luxation. As with other health conditions, degree of severity may be graded by veterinarians as follows:

Grade I ñ patella can be moved out of place manually only with the dog's leg in extension. These dogs are almost normal and often have no noticeable gait abnormality.

Grade II ñ patella goes out of place when the joint flexes and generally stays out until pushed back into place or until the leg is straightened. These dogs usually have a gait abnormality.

Grade III ñ patella is luxated most of the time but can be pushed back into place with the limb in extension.

Grade IV ñ the worst ñ patella is out of place all the time and cannot be pushed back into place manually (least common type).

The patella is attached to the quadriceps muscle above and to the patella ligament below. The patellar ligament attaches to a prominence on the bone below the knee (tibia) called the tibial crest. Reasons for patellar luxation vary, as do different combinations of abnormalities. There are several structures which may be abnormal alone or in combination. Therefore, each instance of patellar luxation needs to be assessed individually. Treatments may range from nothing in most Grade I cases to major reconstructive surgery. Without going into great detail as to the differences among them, there are a variety of surgical procedures which may be performed. Their medical names include medial release, lateral imbrication, trochleoplasty, tibial crest transposition, and derotational suture replacement.

If your veterinarian has diagnosed patellar luxation and suggests corrective surgery to help minimize pain and forestall arthritis over the long term, the strongest recommendation is made that the actual surgery be performed by a veterinary surgeon, preferably one who is board-certified and who does a lot of orthopedic work.

A Jack Russell Terrier owner also wrote on the internet about how her breed club chose to deal with the occurrence of luxating patellas. She wrote:

The JRT must be a year old before registration and must go through a fairly thorough veterinary exam before the adult JR can be registered. Those terriers with luxating patella, Legg-Perthes and a variety of other disorders are not registered, not allowed to be bred and are neutered. Unfortunately we have found several terriers whose vets missed the luxating patella on an adult dog for some reason or other. My vet suggested several years ago we take our terriers to a board certified orthopedist for examination which we now do. At a year old each adult makes his/her annual trip to the vet school to be examined by 2 orthopedists. At 2 years old they are OFA certified. Any dog that has even a loose patella at a year old is NOT bred and is neutered.

We believe if you have all of your breeding stock checked by an orthopedist and stay away from those lines your aren't sure of and those bloodlines that are known carriers you can clean up this problem in a relatively short period of time. The Jack Russell Terrier club has made huge strides in this area.

Bruce Field, in *The Cavalier King Charles Spaniel*, indicates that W.A. Priester (1972) determined that small breeds (under 9 kg. adult weight) had a 12 times greater chance of incidence than larger breeds. Mr. Field notes that as the defect usually becomes apparent by the time the dog is 10 months of age, there should be no problem in choosing not to breed from affected stock, whether your Cavalier be a dog or bitch.

If you have suggestions about what else CKCSCC can do as a club to support breeders' and owners' concerns about slipping patellas, please contact a member of the Health Education Committee with your thoughts and ideas.

Disclaimer: Your veterinarian is the most qualified person to answer all of the questions you have about your pet's health. Nothing in this article should be construed as medical advice regarding any individual animal's condition.

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