

Dr. Becker on von Willebrand Disease

By Dr. Karen Becker

Hi, this is Dr. Karen Becker, and today we're going to discuss von Willebrand disease.

von Willebrand disease is also called vWD and is the most common inherited blood clotting disorder in pet dogs. Dogs with the condition have an insufficient amount of von Willebrand factor, called vWF, which is a plasma protein. This protein is needed in order for the blood to clot properly. The disease inhibits normal clotting function and causes excessive bleeding even for minor skin wounds. For this reason, it can be a serious and even a deadly bleeding disorder.

von Willebrand is caused by a genetic mutation and is equally common in both male and female dogs, though the severity of the condition varies.

Types of the Disease

There are three types of vWD. Type 1 usually causes mild to moderate symptoms. Fortunately, it's the most common form of the disease. Breeds prone to Type 1 Von Willebrand include Dobermans, golden retrievers, standard poodles, Manchester terriers, the Akita, the Pembroke Welsh Corgi, and the miniature schnauzer.

Type 2 causes severe symptoms and occurs primarily in German wirehaired and shorthaired pointers.

Type 3 von Willebrand is also a very severe form. It is seen most commonly in Chesapeake Bay retrievers, Scottish terriers, shelties, and less commonly in other breeds.

Dogs with hypothyroidism may also be at greater risk of bleeding disorders. von Willebrand occurs in both male and female dogs and has been reported in more than 50 breeds.

Symptoms and Diagnosis

Fortunately, most dogs with the disorder have few, if any, symptoms. Symptoms tend to improve as the dog matures. In fact, dogs with Type 1 Von Willebrand are often not diagnosed for years until surgery or an acute injury points to a problem with a blood clotting issue.

More severe symptoms of the disorder are usually obvious by the time a dog reaches one year of age. Symptoms can include bleeding from the mouth or nose for no apparent reason, bleeding in the GI tract evidenced by bloody or dark tarry stools, blood in the urine, anemia, excessive bleeding from the loss of some baby teeth, tail docking, or ear cropping.

Sometimes dewclaw removals can cause excessive bleeding. Simple basic wounds, surgical incisions from spay and neuters, excessive bleeding during heat cycles or during whelping (which is giving birth)

for females, and even as a result of a basic nail trim. Mild injuries that occur during play can actually cause bleeding to the joints and then can cause lameness in young dogs.

Von Willebrand disease can be diagnosed in blood test and bleeding time test that measure the length of time it takes the bleeding to stop from a tiny incision in the inside of a dog's gum. Blood test for Von Willebrand measures the level of Von Willebrand factor in the dog's bloodstream. There is also a DNA test available that identifies both symptomatic dogs and those carrying the disorder. It is the most accurate diagnostic test for this particular disease.

Caring for Dogs with VWD

Unfortunately, Von Willebrand disease, if your dog is diagnosed, can't be cured. But it can be managed. The treatment goals are to control bleeding, reduce the number of bleeding events, and to correct any underlying conditions that might be contributors to the bleeding disorder.

Dogs with Von Willebrand may require blood transfusions during surgical procedures to restore levels of Von Willebrand factor that can allow for normal blood clotting to occur. Several transfusions can be required for dogs with the severe form of this disease.

Steps can be taken to increase a VWD dog's blood clotting ability to reduce surgical risks. These include giving IV clotting factors and medications prior to a procedure. Bleeding caused by external wounds can be controlled by bandages, pressure wraps, sutures, or skin glue.

Dogs with this particular disease should be prevented from rough play with each other or even people, as even minor injuries to their joints or body can be pretty risky. Hard bones and treats or hard toys that may cause bleeding from the gums should also be avoided.

Since Von Willebrand dogs tend to also develop hypothyroidism, I think it's a really good idea to have an annual thyroid test performed on these dogs.

There are certain drugs that should not be given to dogs with Von Willebrand disease, including NSAIDs and any medications that involve any type of anticoagulant or anti-platelet activity. There are actually also a few supplements that should not be given in high doses. These include vitamins C and E, the proanthocyanidins such as grape seed extract and pine bark, as well as high doses of the omega-3 fatty acids.

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