

Von Willebrand's Disease

What is it?

Von Willebrand's disease (vWB) is a blood disease caused by a deficiency of von Willebrand factor (vWF), an adhesive glycoprotein in the blood required for clotting at the sites of small blood vessel injuries. In addition, vWF is a protein for coagulation Factor VIII, a protein essential for blood to clot. Similar to hemophilia in humans, this condition can lead to excessive bleeding following an injury.

What causes it?

vWB is an autosomal (non-sex linked) trait. Non-sex linked means that both males and females express and transmit vWB genetically and with equal frequency. The expression pattern of the severe forms (Type I vWD) appears to be recessive or incompletely dominant. This is the most common hereditary blood clotting disorder in dogs, occurring with frequency in some breeds, including German shepherds, Doberman pinschers, Standard poodles, Shetland sheepdogs and Golden Retrievers.



Signs & Symptoms

- Spontaneous hemorrhage from mucosal surfaces
- Nosebleeds
- Blood in the feces (black or bright red)
- Bloody urine
- Bleeding from the gums
- Excessive bleeding from the vagina
- Bruising of the skin
- Prolonged bleeding after surgery
- Blood loss of anemia if there is prolonged bleeding

Testing & Treatment

How is it diagnosed?

A clinical diagnosis is usually confirmed with a blood test called a von Willebrand factor antigen assay (vWF:Ag). A genetic test is available for some breeds, but there is currently no test available for Newfoundlands.

How is it treated?

Transfusion of fresh whole blood, fresh plasma, and cryoprecipitate will supply vWF to the blood. Component therapy (fresh frozen plasma or cryoprecipitate is best for surgical prophylaxis (prevention) and non-anemic patients, to prevent red cell sensitization and volume overload. Patients with severe vWD may require repeated transfusion to control or prevent hemorrhage. If a dog lacking vWF requires surgery, a pre-operative transfusion should be given just before the procedure.

Prognosis:

Most dogs with mild to moderate vWD will continue to have a good quality of life, requiring minimal or no special treatment. Dogs with more severe forms require transfusion for surgery, and should be transfused if supportive care fails to control a spontaneous bleeding episode. Most of these dogs can be maintained comfortably, but their activities will need to be monitored and limited.

More Information:

<https://ahdc.vet.cornell.edu/sects/coag/clinical/vonwill/>

This information is not meant to be a substitute for veterinary care.

Always follow the instructions provided by your veterinarian.

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