WHAT IS VON WILLEBRAND DISEASE?

von Willebrand disease, or VWD, is a genetic disorder caused by a missing or defective clotting protein in the blood called von Willebrand factor.

VWD causes prolonged or excessive bleeding. As the most common inherited bleeding disorder, it affects approximately 1% of the population. VWD occurs equally in men and women.

WHAT ARE THE SIGNS AND SYMPTOMS OF VON WILLEBRAND DISEASE?

Common signs and symptoms of VWD include frequent and prolonged nosebleeds, easy bruising, and excessive bleeding after surgery or dental work.

In more severe cases, spontaneous bleeding in soft tissue and joints may occur. For women, heavy menstrual bleeding, called menorrhagia, is often a primary symptom.

Individuals with VWD may exhibit some or all of these symptoms, with varying severity.
WHAT ARE THE DIFFERENT TYPES OF VON WILLEBRAND DISEASE?

There are several different classifications of VWD.

In **Type 1 VWD**, the body has low levels of von Willebrand factor and may also have low levels of factor VIII, which is another type of blood clotting protein.

In **Type 2 VWD**, the body makes normal amounts of von Willebrand factor, but it does not work the way it should. There are four subtypes for Type 2 VWD, depending on the specific problem with the person's von Willebrand factor. Each subtype is treated differently.

In **Type 3 VWD**, the body makes very little or no von Willebrand factor and has low levels of factor VIII.

In extremely rare cases, adults with autoimmune disease, heart disease or certain types of cancer can acquire VWD.

The type of VWD a person has is not an indicator of the severity of their symptoms.

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HOW IS VON WILLEBRAND DISEASE DIAGNOSED?

The best place to diagnose a bleeding disorder is at a hemophilia treatment center, or HTC.

Here, your hematologist will perform various tests to evaluate clotting capability, platelet function and factor protein levels.

Some tests may have to be repeated, because von Willebrand factor levels can fluctuate in the body and are influenced by stress and hormones.

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HOW IS VON WILLEBRAND DISEASE TREATED?

Treatment for VWD depends on the type and severity. The most common treatment, DDAVP, boosts factor levels in the blood. It can be taken by injection or nasal spray.

Other treatments may include injections to replace missing factor proteins; agents to help prevent the breakdown of blood clots; and, for women, hormone therapy, such as birth control pills.

If you were diagnosed with VWD, there are steps you can take to successfully manage your condition. Work closely with your healthcare team to establish a management plan that works for you. Take an active role in your own care. Adhere to treatments and schedule regular checkups to help pave the way to a healthy, happy life!

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WHERE CAN I LEARN MORE ABOUT VON WILLEBRAND DISEASE?

For more information on VWD, visit: [www.stepsforliving.hemophilia.org](http://www.stepsforliving.hemophilia.org)

For more information on bleeding disorders in general, visit: [www.hemophilia.org](http://www.hemophilia.org)

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