



## von Willebrand disease (VWD)

### What is von Willebrand disease?

von Willebrand disease (VWD) is the most common type of inherited bleeding disorder. People with VWD have a problem with a protein in their blood called von Willebrand factor (VWF) that helps control bleeding. When a blood vessel is injured and bleeding occurs, VWF helps cells in the blood, called platelets, mesh together and form a clot to stop the bleeding. People with VWD do not have enough VWF, or it does not work the way it should. It takes longer for blood to clot and for bleeding to stop.

VWD is generally less severe than other bleeding disorders. Many people with VWD may not know that they have the disorder because their bleeding symptoms are very mild. For most people with VWD, the disorder causes little or no disruption to their lives except when there is a serious injury or need for surgery. However, with all forms of VWD, there can be bleeding problems.

It is estimated that about 1 in 1000 of the world's population suffers from VWD, but because many people have only very mild symptoms, only a small number of them know they have it. with the majority of people with VWD have not been diagnosed.

### Types of VWD

There are three main types of VWD. Within each type, the disorder can be mild, moderate, or severe. Bleeding symptoms can be quite variable within each type depending in part on the VWF activity. It is important to know which type of VWD a person has, because treatment is different for each type.

**Type 1 VWD** is the most common form. People with Type 1 VWD have lower than normal levels of VWF. Symptoms are usually very mild. Still, it is possible for someone with Type 1 VWD to have serious bleeding.

**Type 2 VWD** involves a defect in the VWF structure. The VWF protein does not work properly, causing lower than normal VWF activity. There are different Type 2 VWD defects. Symptoms are usually moderate.

**Type 3 VWD** is usually the most serious form. People with Type 3 VWD have very little or no VWF. Symptoms are more severe. People with Type 3 VWD can have bleeding into muscles and joints, sometimes without injury.

For more materials, visit [www.wfh.org](http://www.wfh.org).