

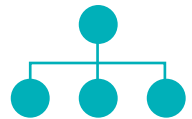
Prevalence

VWD is the most common inherited bleeding disorders, affecting approximately **3.3 million Americans** and occurring with equal frequency among both men and women.^{1,2}



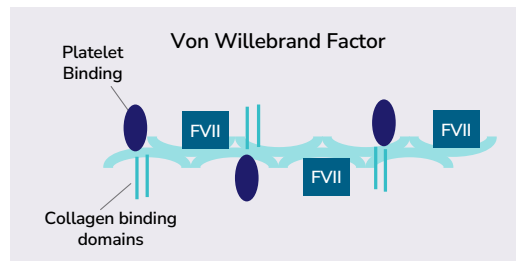
Types of VWD

There are **3 main types** of VWD (type 1, 2, and 3), which are characterized by qualitative and quantitative defects in Von Willebrand factor (VWF).³



Pathophysiology

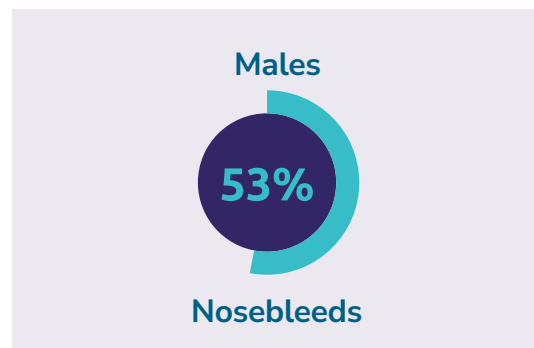
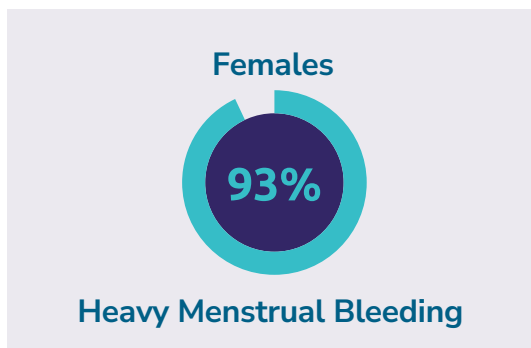
VWF is a glycoprotein crucial to primary hemostasis through platelet and subendothelial collagen adhesion, and the intrinsic coagulation cascade, through factor VIII stabilization.⁴



Qualitative and quantitative defects in VWF are typically inherited and result in prolonged clotting time, abnormal clotting, and/or excessive bleeding or bruising.

Symptoms

In type 1 VWD—the most common form—the prevalent bleeding symptoms include the following:⁵



Delays in Diagnosis

Despite typically being affected from birth, diagnosis of VWD is often delayed:⁵

2

Average number of times tests were carried out to obtain a diagnosis of VWD (range 1–20 times).

6

Average number of bleeding episodes reported by women before a diagnosis of VWD was made.

10

Age at which most males are typically diagnosed.

12-16

Age at which most females are diagnosed.

Treatment

Bleeding in VWD can be addressed with 3 main treatments:



Desmopressin

Nasal spray or injection



Tranexamic acid

Tablets, mouthwash, or injection



VWF concentrate

Injection

- Hemophilia treatment centers (HTCs) provide expert, interdisciplinary care for individuals with VWD.
- HTCs can also help coordinate care for these individuals around dental and surgical procedures.

Healthcare Resource Utilization

71%

Patients with VWD are **71% more likely** to have an inpatient admission or emergency room visit than patients without VWD.⁶

Patients with VWD incur significantly higher annual healthcare costs than patients without VWD:^{6,7}

Average \$13,500

VWD

\$50,000

References: 1. Rodeghiero F, Castaman G, Dini E. Epidemiological investigation of the prevalence of von Willebrand's disease. *Blood*. 1987 Feb;69(2):454-9. 2. Werner EJ, Broxson EH, Tucker EL, et al. Prevalence of von Willebrand disease in children: a multiethnic study. *J Pediatr*. 1993 Dec; 123(6): 893-8. 3. Bharati KP, Prashanth UR. Von Willebrand disease: an overview. *Indian J Pharm Sci*. 2011 Jan;73(1):7-16. 4. Cortes GA, Moore MJ, El-Nakeep S. Physiology, Von Willebrand Factor. [Updated 2023 Feb 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK559062/> 5. Kirtava A, Drews C, Lally C, Dilley A, Evatt B. Medical, reproductive and psychosocial experiences of women diagnosed with von Willebrand's disease receiving care in haemophilia treatment centres: a case-control study. *Haemophilia*. 2003 May;9(3):292-7. 6. Oladapo A, Wu Y, Lu M, Farahbakhshian S, Ewenstein B. Economic Burden Associated with Major Surgery in Patients with von Willebrand Disease: A United States Retrospective Administrative Database Analysis. *J Blood Med*. 2021 Aug 7;12:699-708. doi: 10.2147/JBM.S320837. PMID: 34393536; PMCID: PMC8357406. 7. United States Centers for Medicare and Medicaid Services. Historical Data. Available at: <https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/historical>.

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