

### **What is the difference between VWD and hemophilia?**

Von Willebrand disease results from insufficient, abnormal, or absent vonWillebrand factor. Because VWF is especially important for the prevention of bleeding from skin and mucous membranes (the lining of the nose, mouth, intestines, uterus, and vagina), bleeding is common at these sites. Hemophilia results from a deficiency of clotting factor VIII (hemophilia A) or clotting factor IX (hemophilia B). Because factors VIII and IX are especially important for the prevention of bleeding within deep tissues, bleeding is common in joints and within muscles.

While VWD is generally inherited by autosomal dominant transmission, hemophilia is generally inherited by sex-linked or X-linked transmission. An X-linked genetic disease is one that is generally passed on from a mother to her son. Humans have 23 pairs of chromosomes of which one pair is the sex chromosomes. Females have two X chromosomes. Males have one X chromosomes and one Y chromosome. Males inherit a Y chromosome from their fathers and an X chromosome from their mothers. Abnormal genes on the X chromosome from the mother will result in a 40% chance of her having an affected son. The mother herself, who has a second normal X chromosome, is not affected or only mildly affected. She is generally referred to as a carrier. Since the genes for clotting factors VIII and IX are located on the X chromosome, an abnormal gene for either factor VIII or factor IX will result in hemophilia in the affected male. In order for a female to be affected, she would need to have an abnormal gene on both of the X chromosomes, or have one X chromosome with an abnormal gene and a second X chromosome that was inactive or non existent. Consequently, hemophilia very rarely affects girls or women.

Hemophilia is usually severe and requires frequently infusions of clotting factor concentrates more than once a week to control or prevent bleeding. Von Willebrand disease is usually mild or moderate and rarely requires infusions of clotting factor concentrates to control or prevent bleeding except prior to surgery or procedures.

Hemophilia is relatively rare, affecting about 1 in 5,000 males. Von Willebrand disease is more common.

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### **How can nosebleeds be prevented?**

Limit activity for a day or two. Vigorous exercise can cause nosebleeds to recur, so it is best to refrain from vigorous activity for a day or two after a nosebleed.

Keep the inside of the nose lubricated. A little dab of petroleum jelly placed over the irritated area on the inside of the nose for a few days may help prevent bleeding.

Keep the moist membranes of the nose from drying out. Invest in a humidifier. Since one of the most common causes of nosebleeds is dryness of the moist membranes that line the nose, breathing well-humidified air may help protect against some nosebleeds. Saline nose spray can also help keep the membranes moist.

Avoid trauma to the nose. Blow gently. Keep objects out of the nose.

Minimize nasal discharge. Antihistamines can reduce nasal discharge from allergies. Make sure your blood pressure is normal. High blood pressure can increase the chance of having a nosebleed.

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