Testing for Hereditary Factor X Deficiency (HFXD)

If hemophilia and von Willebrand disease have been excluded in a patient with bleeding symptoms—

The patient may have an underlying rare bleeding disorder, such as Hereditary Factor X Deficiency[1,2]

Consider testing for Hereditary Factor X Deficiency if the patient's prothrombin time (PT) is prolonged[1-3]

Confirm factor X deficiency using a single test: plasma assay for Factor X Activity[3,4]

For a patient with a lower-than-normal factor X assay result, use the factor X activity level to determine their Baseline Severity Classification[5,6]

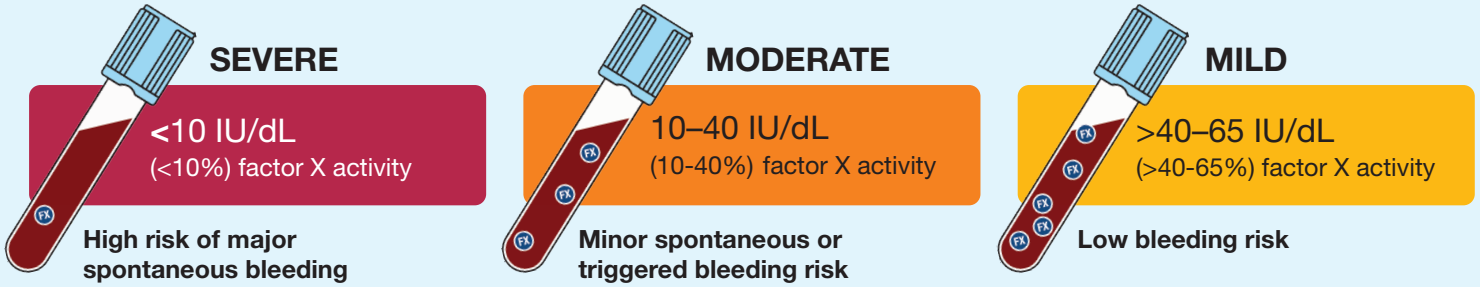
Factor X By the Numbers

About **1 in 16** rare bleeding disorder cases are due to HFXD[7]

1 in 500 people are estimated to be carriers for HFXD[3]

As an autosomal recessive disorder, HFXD **affects females and males equally**[8]

Baseline Severity Classification for Hereditary Factor X Deficiency (without treatment)[5,6]



Testing for Hereditary Factor X Deficiency

Important considerations in Hereditary Factor X Deficiency

- Although clinical bleeding severity strongly correlates with factor X activity level, **individuals may vary in their bleed severity relative to factor X activity level**[9]
- Women have additional risks, e.g., **up to 70% of symptomatic women experience menorrhagia**[10]
- In addition to a prolonged prothrombin time (PT), **activated partial thromboplastin time (aPTT) may or may not be prolonged**[1]
- A **family history of bleeding** may not always be identifiable[3]

Prevalence and PT/aPTT for congenital coagulation factor deficiencies[1,2,8,11]

Hereditary Factor X Deficiency is one of the most prevalent rare bleeding disorders

Factor Deficiency	Estimated Prevalence	PT	aPTT
Rare Bleeding Disorders			
Factor II (prothrombin)	1 in 2 million	Prolonged	Normal or prolonged
Factor V	1 in 1 million	Prolonged	Prolonged
Factor VII	1 in 500,000	Prolonged	Normal
Factor X	**1 in 500,000 to 1 in 1 million**	**Prolonged**	**Normal or prolonged**
Combined Factors V/VIII	1 in 1 million	Prolonged	Prolonged
Factor XI	1 in 1 million	Normal	Prolonged
Factor XIII	1 in 2 million	Normal	Normal
More Common Bleeding Disorders			
Factor VIII (Hemophilia A)	1 in 5,000 male births	Normal	Prolonged
Factor IX (Hemophilia B)	1 in 30,000 male births	Normal	Prolonged
von Willebrand Factor	1 in 100 to 1 in 10,000	Normal	Normal or prolonged

Hereditary Factor X Deficiency is one of the most prevalent rare bleeding disorders. Consider testing for factor X deficiency if a patient with bleeding symptoms has a prolonged PT. A single blood test can confirm factor X deficiency[1-3]

References: 1. Kamal AH, et al. *Mayo Clin Proc.* 2007;82(7):864-873. **2.** Palla R, et al. *Blood.* 2015;125(13):2052-2061. **3.** Peyvandi F, et al. *Blood Reviews.* 2021:50. doi: 10.1016/j.blre.2021.100833. **4.** LabCorp. https://www.labcorp.com/tests/086306/factor-x-activity. Accessed November 5, 2024. **5.** Peyvandi F, et al. *J Thromb Haemost.* 2012;10:1938-1943. **6.** Peyvandi F, et al. *Brit J Haematol.* 1998;102:626-628. **7.** Menegatti M, Peyvandi F. *Thromb Hemost.* 2024 Aug 29. doi: 10.1055/s-0044-1789595. Epub ahead of print. **8.** National Organization for Rare Disorders. Updated June 6, 2023. Accessed October 25, 2024. https://rarediseases.org/rare-diseases/factor-x-deficiency/ **9.** Peyvandi F, Palla R, et al. *J Thromb Haemost.* 2012;10:615-662. **10.** Hermann FH, et al. *Haemophilia.* 2006;12:479-489. **11.** Medline Plus. https://medlineplus.gov/genetics/condition/von-willebrand-disease/#synonyms. Updated August 8, 2023. Accessed November 1, 2024.

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