

# Hemostasis Pathways

**Factor VII**  
Proconvertin, Stable Factor

Biosynthesis: Liver, Vitamin K dependent  
MW: 55,000 daltons  
Plasma Concentration: 1 mg/L  
In Vivo Half-Life: 5 hours  
Pathology: Hypoproconvertinemia, autosomal recessive

**Factor X**  
Stuart-Prower Factor

Biosynthesis: Liver, Vitamin K dependent  
MW: 55,000 daltons  
Plasma Concentration: 5 mg/L  
In Vivo Half-Life: 65 hours  
Pathology: Stuart disease, autosomal recessive

**Tissue Factor**  
Factor III, Thromboplastin

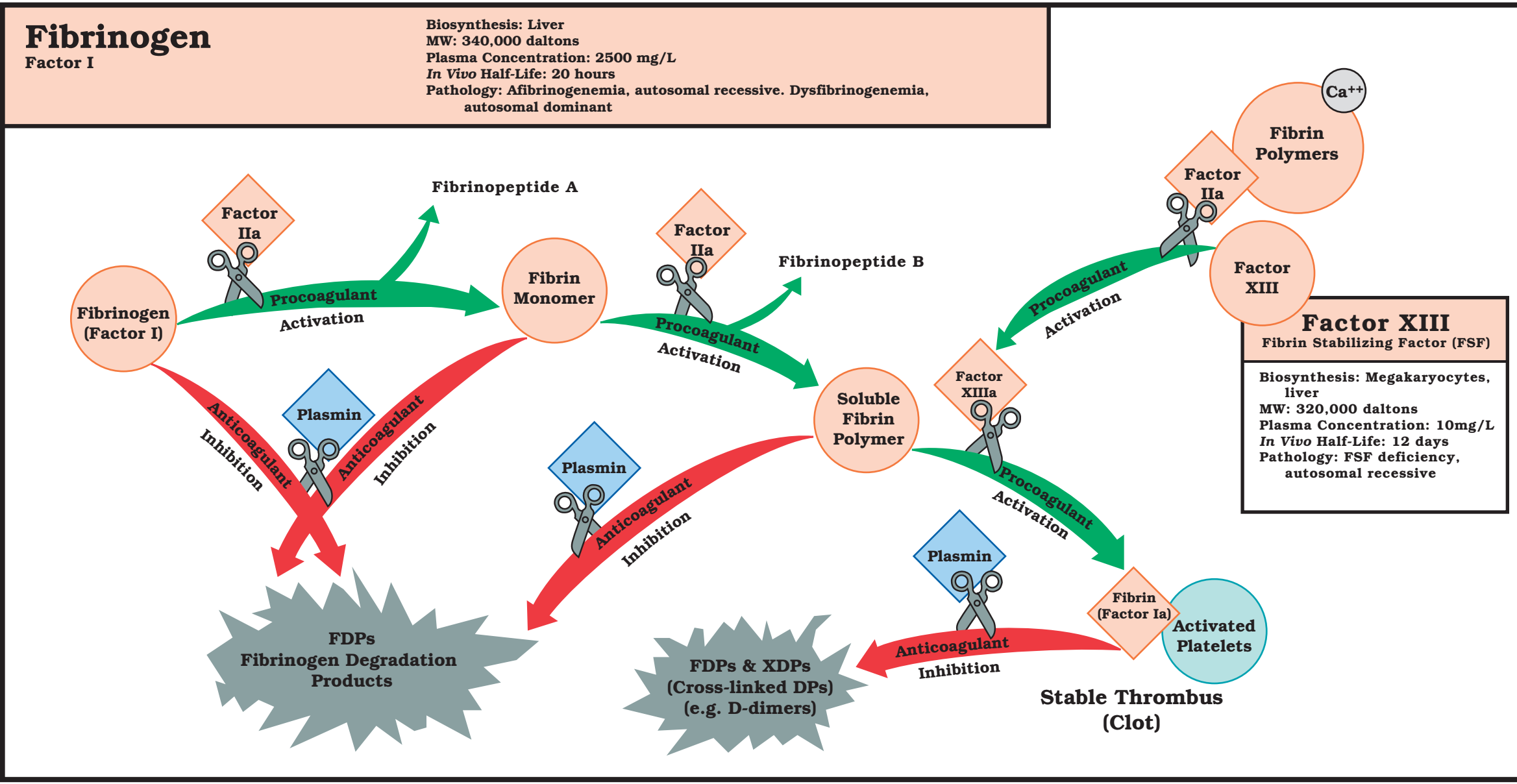
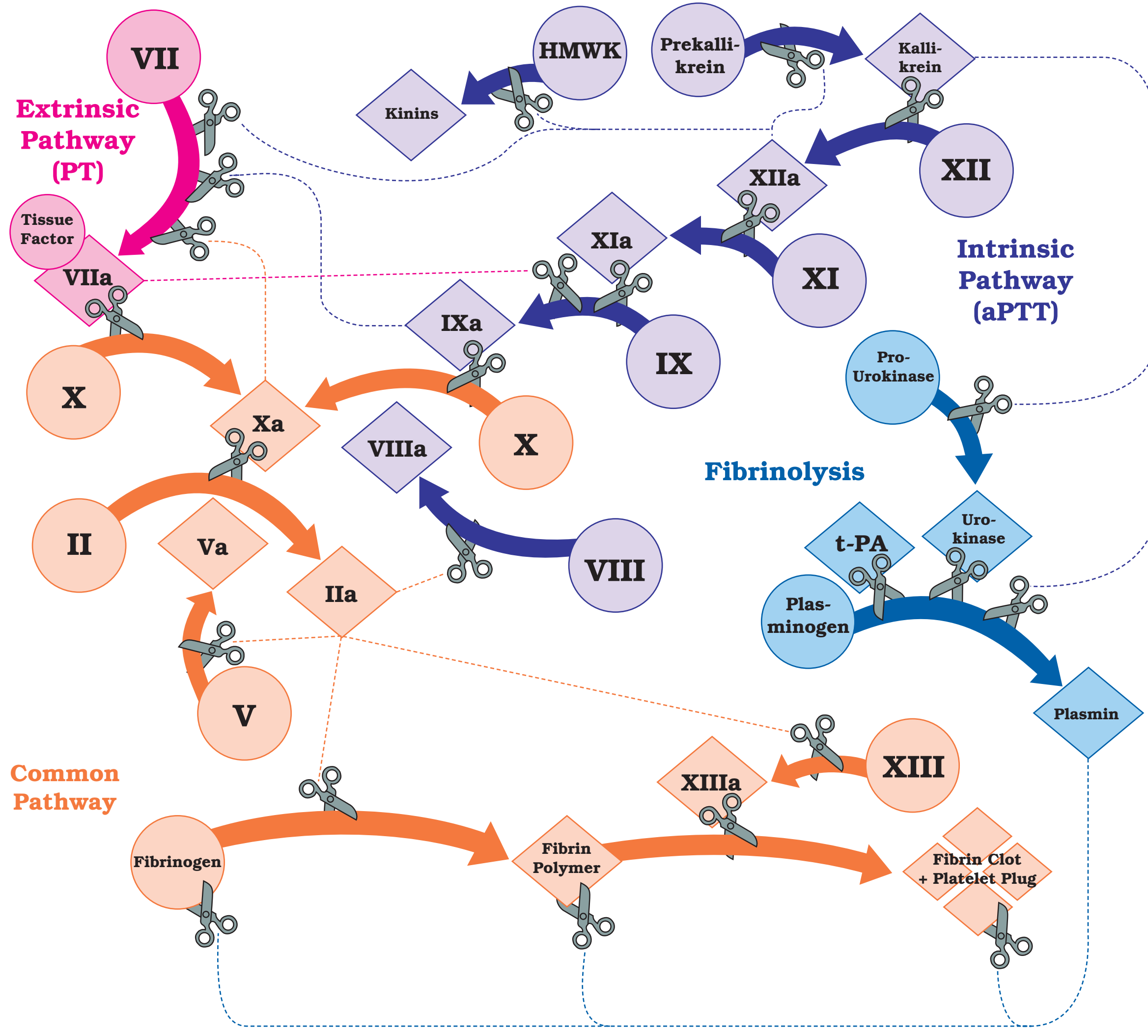
Biosynthesis: Brain, lung, subendothelium  
MW: 45,000 daltons

**Factor II**  
Prothrombin

Biosynthesis: Liver, Vitamin K dependent  
MW: 70,000 daltons  
Plasma Concentration: 100 mg/L  
In Vivo Half-Life: 100 hours  
Pathology: Hypoprothrombinemia, autosomal recessive

**Factor V**  
Proaccelerin, Labile Factor

Biosynthesis: Liver, megakaryocytes  
MW: 330,000 daltons  
Plasma Concentration: 5-12 mg/L  
In Vivo Half-Life: 25 hours  
Pathology: Parahemophilia, autosomal recessive



**Protein C**

Biosynthesis: Liver, Vitamin K dependent  
MW: 56,000 daltons  
Plasma Concentration: 3-5 mg/L  
In Vivo Half-Life: 6-7 hours  
Pathology: Protein C deficiency, autosomal recessive (?)

**Factor VIII**  
Antihemophilic Factor  
vWF

Biosynthesis: Liver, endothelium; megakaryocyte  
MW (FVIII + vWF): 1.2-2 million daltons (6-10 subunits - 200,000 daltons each)  
Plasma Concentration: 7 mg/L (vWF)  
In vivo Half-Life: 10 hours (Factor VIII)  
Pathology: Factor VIII-Hemophilia A, x-linked recessive. vWF von Willebrand's disease, autosomal dominant

**Factor IX**  
Christmas Factor

Biosynthesis: Liver, Vitamin K dependent  
MW: 57,000 daltons  
Plasma Concentration: 4 mg/L  
In Vivo Half-Life: 20 hours  
Pathology: Hemophilia B, (Christmas disease) x-linked recessive

**Plasminogen**

Biosynthesis: Liver  
MW: 90,000 daltons  
Plasma Concentration: 120 mg/L  
In Vivo Half-Life: 45 hours  
Pathology: Plasminogen deficiency, autosomal dominant. Dysplasminogenemia, autosomal recessive

**Prekallikrein**  
Fletcher Factor

Biosynthesis: Probably Liver  
MW: 107,000 daltons  
Plasma Concentration: 50 mg/L  
Pathology: Fletcher trait, autosomal recessive

**Factor XII**  
Hageman Factor

Biosynthesis: Liver  
MW: 80,000 daltons  
Plasma Concentration: 29 mg/L  
In Vivo Half-Life: 60 hours  
Pathology: Hageman trait, autosomal recessive

**Factor XI**  
Plasma Thromboplastin Antecedent

Biosynthesis: Liver  
MW: 158,000 daltons  
Plasma Concentration: 4 mg/L  
In Vivo Half-Life: 65 hours  
Pathology: Hemophilia C, autosomal recessive

For information on Helen's complete line of Hemostasis products, call

Toll Free 800-231-5663

An educational service of:

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