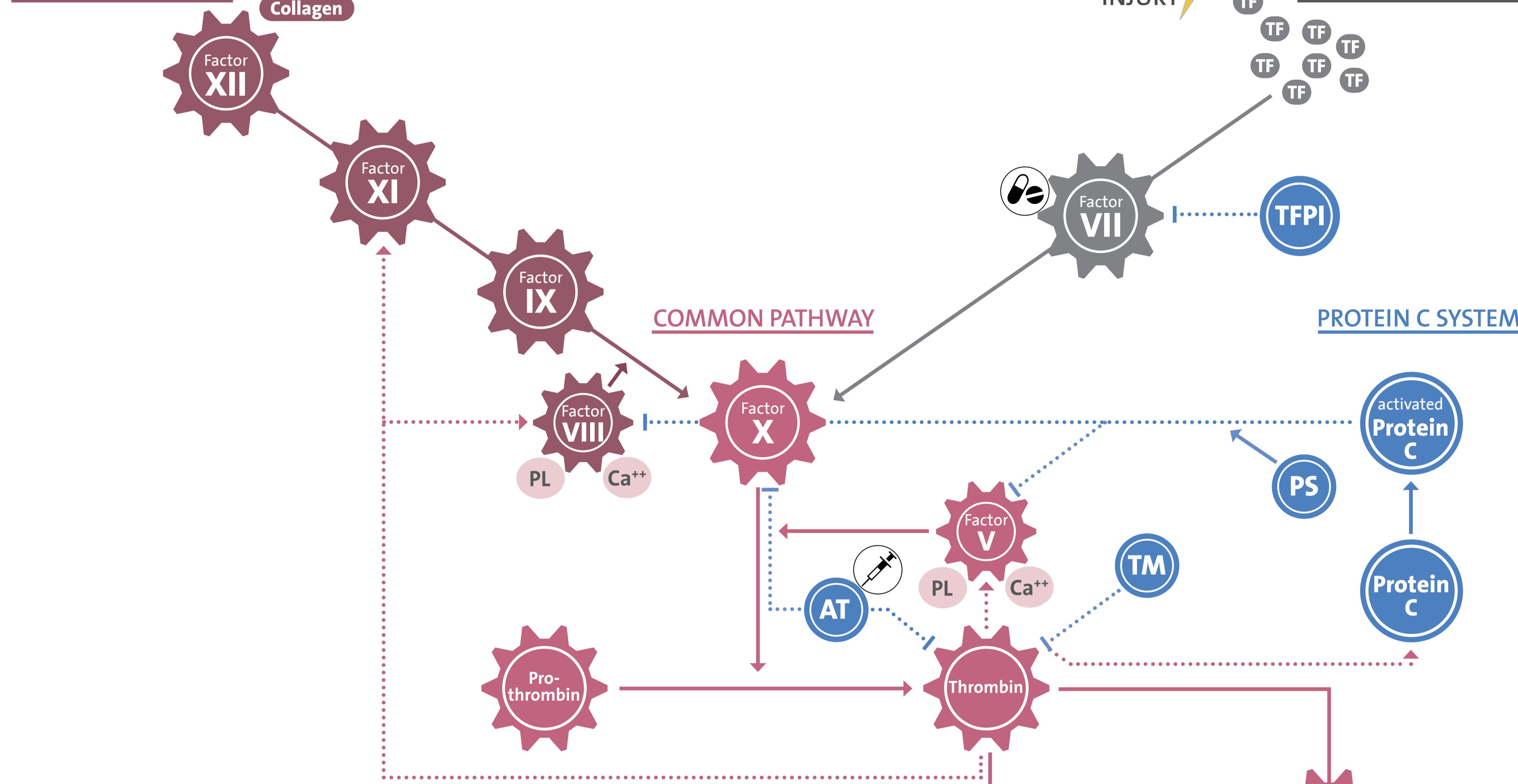
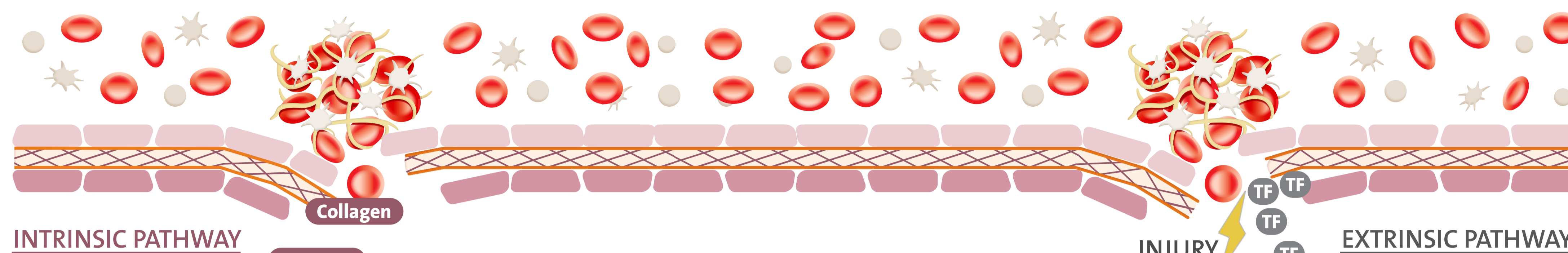


# Plasmatic Coagulation Cascade



## COAGULATION MECHANISMS

**Intrinsic Pathway:** Triggered by Thrombin, Collagen and negatively charged surfaces. The corresponding assay is HEMOSTAT aPTT-EL (aPTT).

**Extrinsic Pathway:** Triggered by Tissue Factor (TF) that is released by injured tissue. The corresponding assay is HEMOSTAT Thromboplastin (PT).

**Common Pathway:** Final coagulation pathway that leads to the conversion of fibrinogen to insoluble fibrin strands and the formation of a fibrin clot.

## ANTI-COAGULATION MECHANISMS

**Tissue Factor Pathway Inhibitor (TFPI):** Down-regulates active Factor VII.

**Antithrombin (AT):** Inhibits Factor X and Thrombin.

**Protein C System:** Activated Protein C with its co-factor Protein S inhibits active Factor V and Factor VIII.

**Fibrinolysis:** The fibrin clot is degraded by Plasmin into fibrin degradation products (FDP), including D-dimer. The corresponding assay is HEMOSTAT D-Dimer.

**Vitamin K Antagonists (VKAs):** Anticoagulant drugs, for example warfarin, that mainly decrease the function of the extrinsic pathway.

**Unfractionated Heparin (UFH):** Anticoagulant drug that greatly accelerates the activity of Antithrombin.

AT	Antithrombin
Ca <sup>++</sup>	Calcium
PL	Phospholipids
PS	Protein S
TF	Tissue Factor
TFPI	Tissue Factor Pathway Inhibitor
TM	Thrombomodulin
.....>	Positive feedback of Thrombin
.....	Inhibition

## FORMATION OF A FIBRIN CLOT



## CLOT DEGRADATION BY FIBRINOLYSIS

