

GLANZMANN'S THROMBASTHENIA

Marc E. Tischler, PhD;
University of Arizona

SEQUENCE OF EVENTS IN BLOOD CLOTTING (see Figure 1)

- following vascular damage , collagen is exposed in endothelial cells lining the blood vessel wall
- Von Willebrand Factor then adheres to the exposed collagen allowing platelets to aggregate at the site of the rupture.
- platelet aggregation forms an initial plug to block the rupture.
- Factor V then interacts with the aggregated platelets to provide a scaffold to which Factor X binds.
- Factor X triggers the conversion of inactive prothrombin to thrombin
- glycoprotein IIb on the platelets interacts with fibrinogen
- active thrombin then converts the inactive fibrinogen to active fibrin
- fibrin forms polymers that serve as an adhesive to hold the platelets in place and thus form the clot at the site of the rupture

