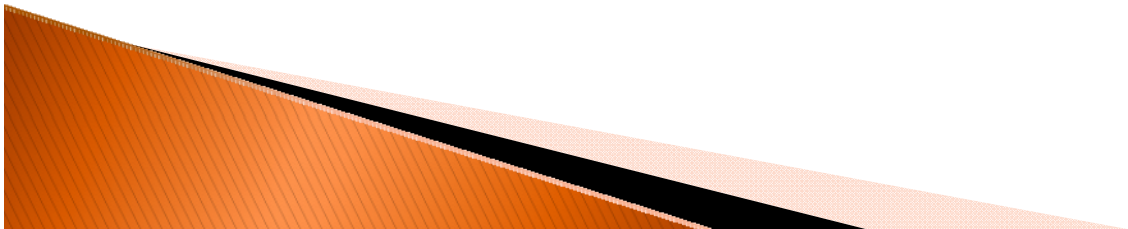


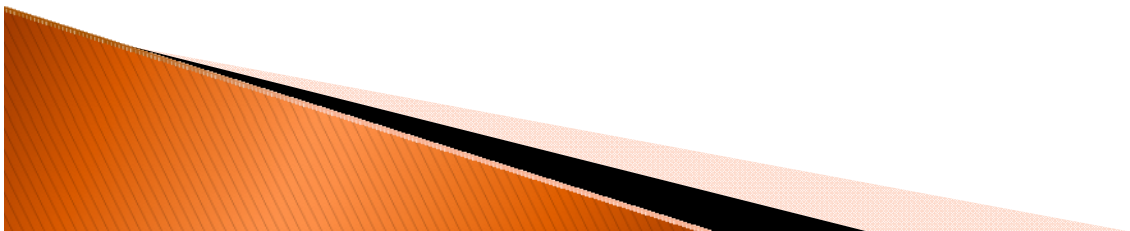
Objectives

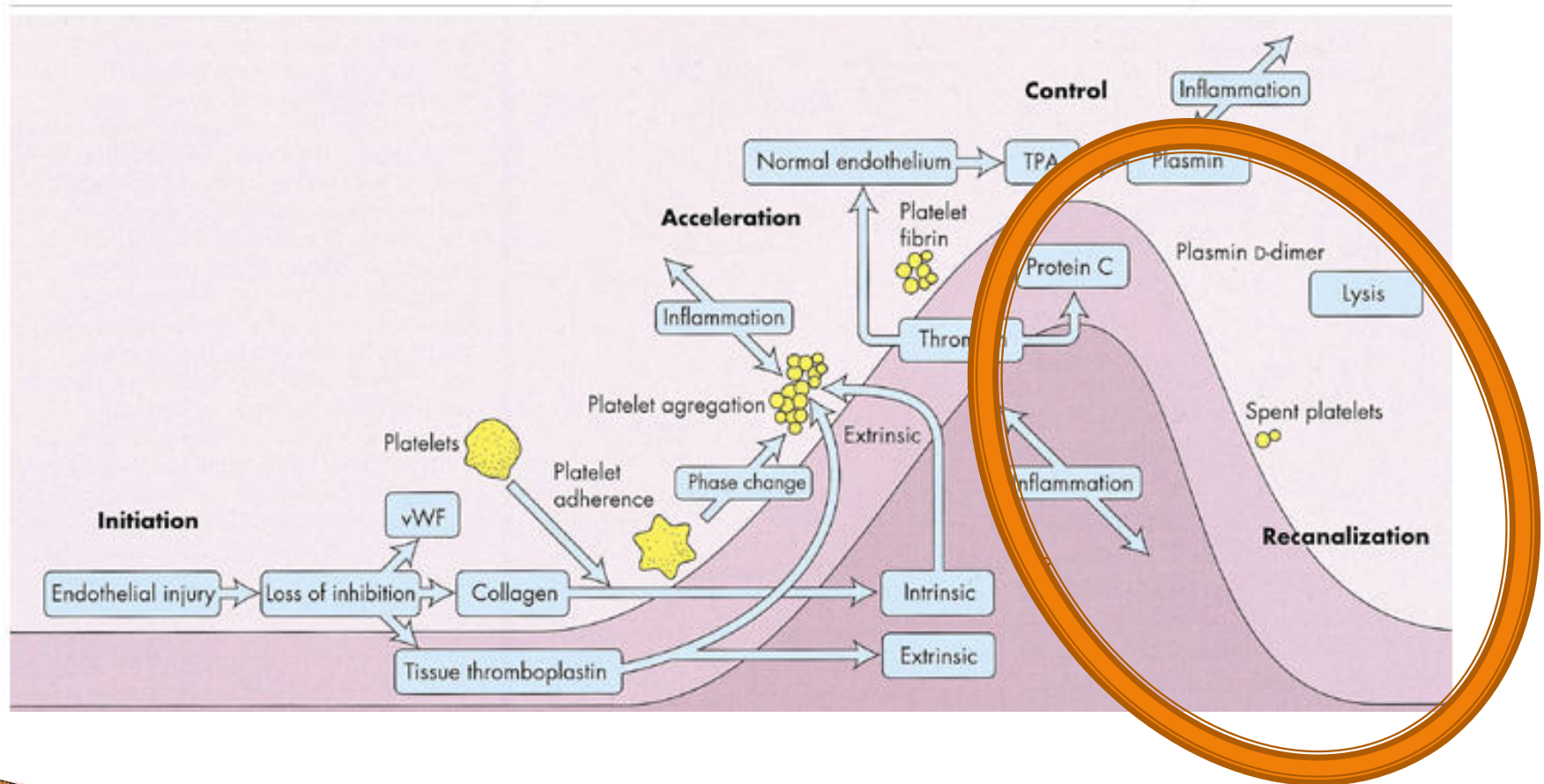
- ▶ Review important aspects of clotting system
- ▶ Describe problems associated with clotting tendencies
- ▶ Identify conditions associated with increased clotting

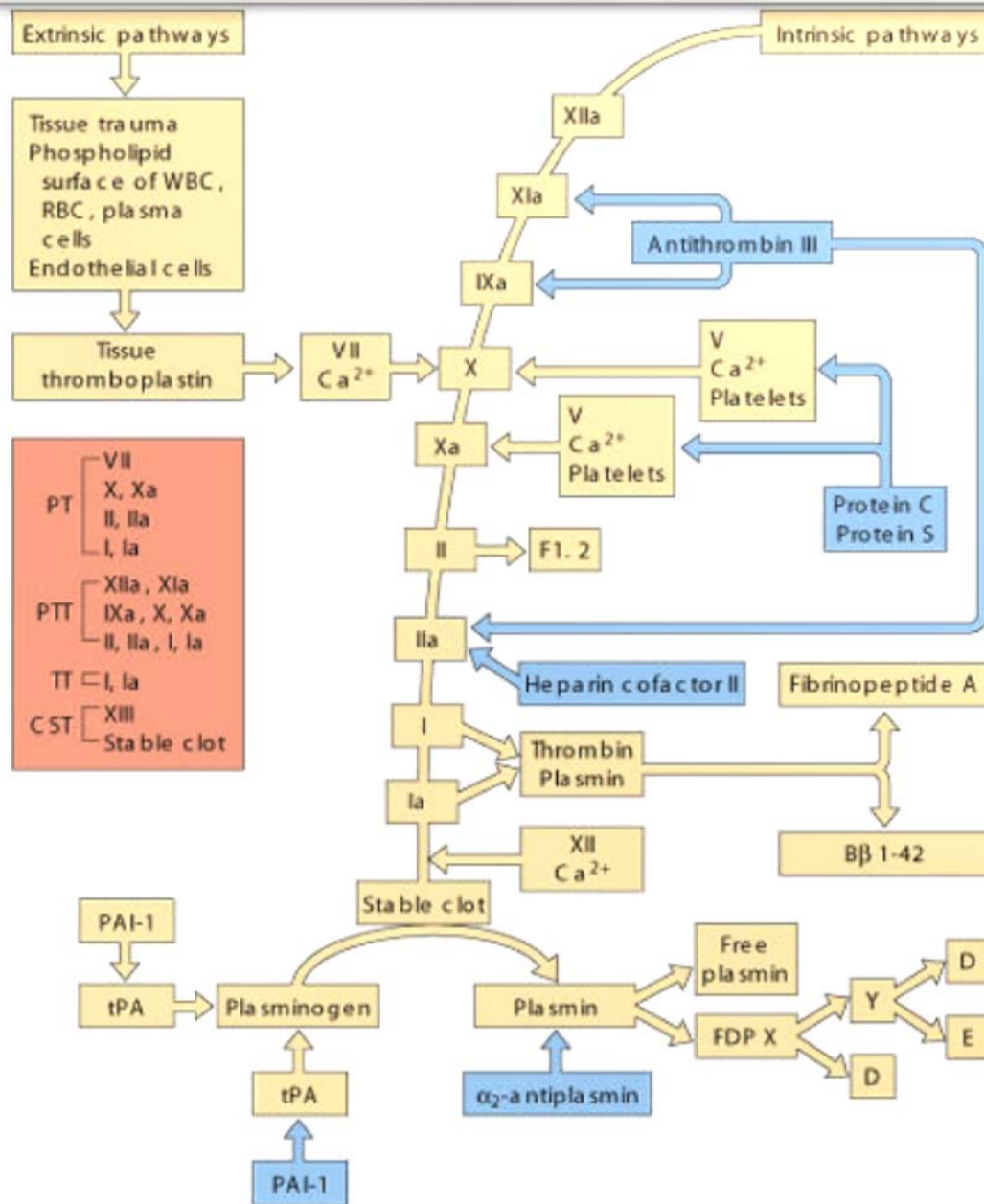


Thrombophilias

- ▶ Increased risk for thrombosis
 - Especially on high risk situations
- ▶ Spontaneous thrombosis
- ▶ Thrombosis at earlier age
- ▶ Pregnancy related complications
- ▶ May be acquired or congenital

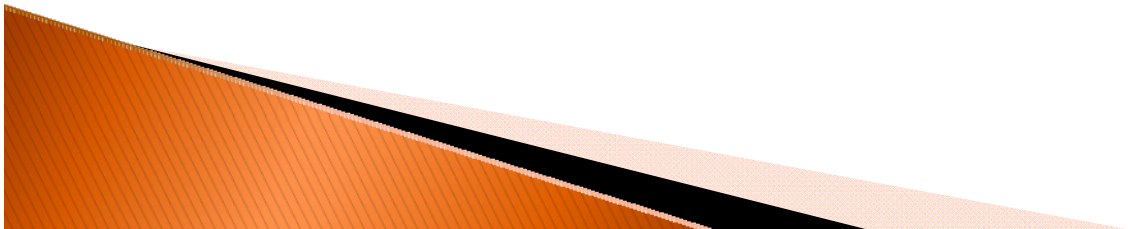






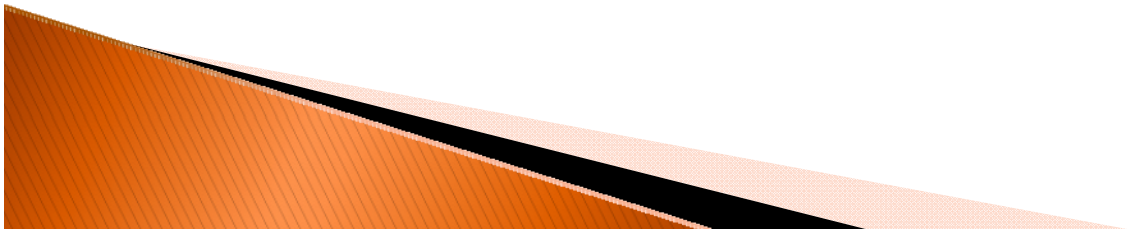
Thrombus

- ▶ Formation of clot at site
- ▶ Increased under certain conditions
 - Obesity
 - Immobility
 - Trauma
 - Neoplasm
 - Pregnancy
- ▶ Anticoagulant deficiencies
- ▶ Antiphospholipid syndrome
- ▶ Heparin induced thrombocytopenia

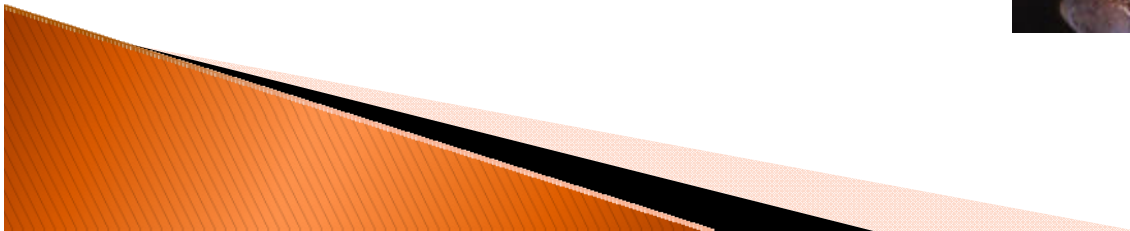
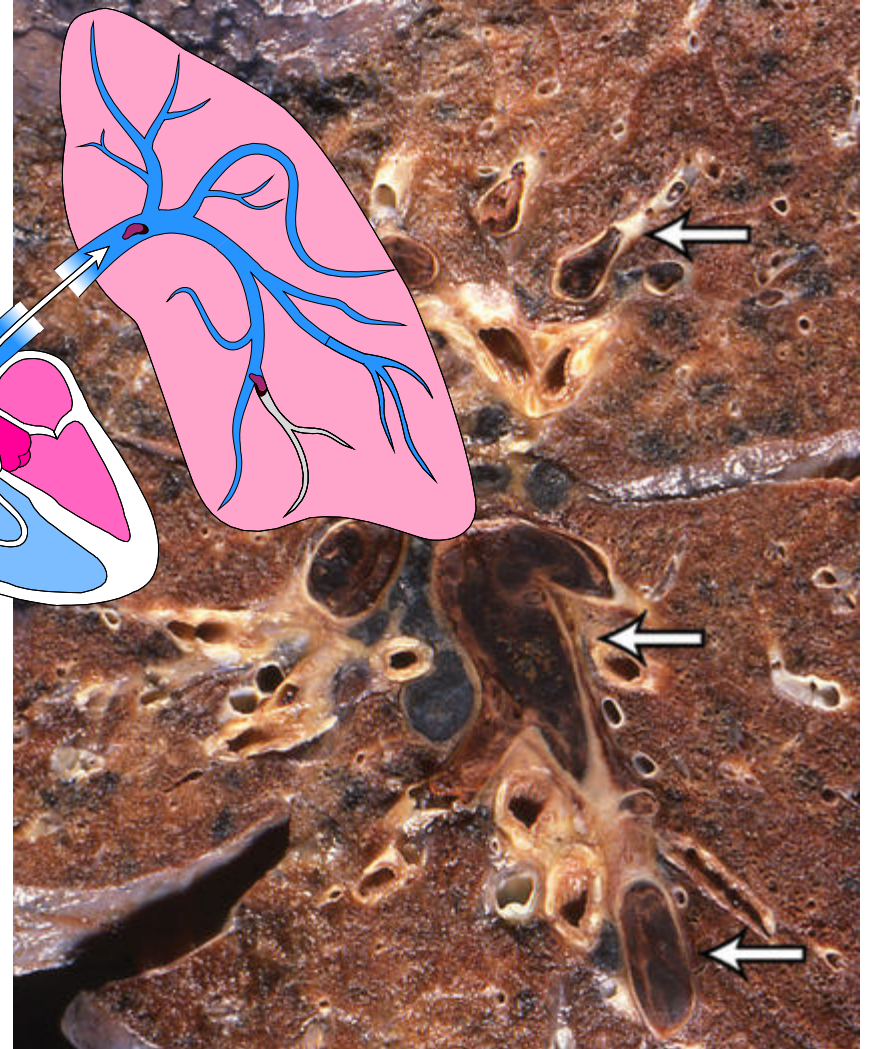
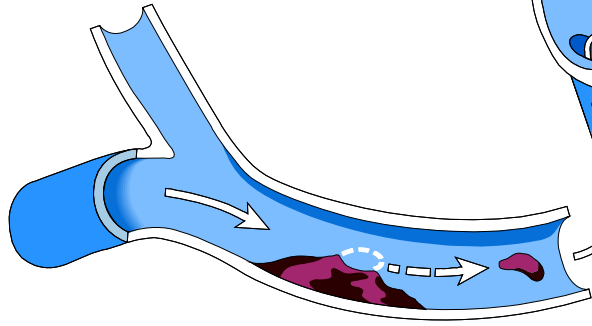
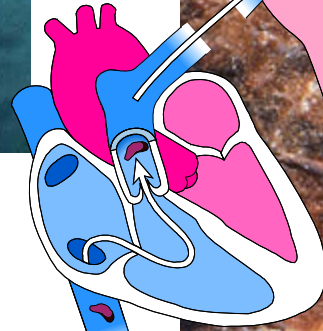
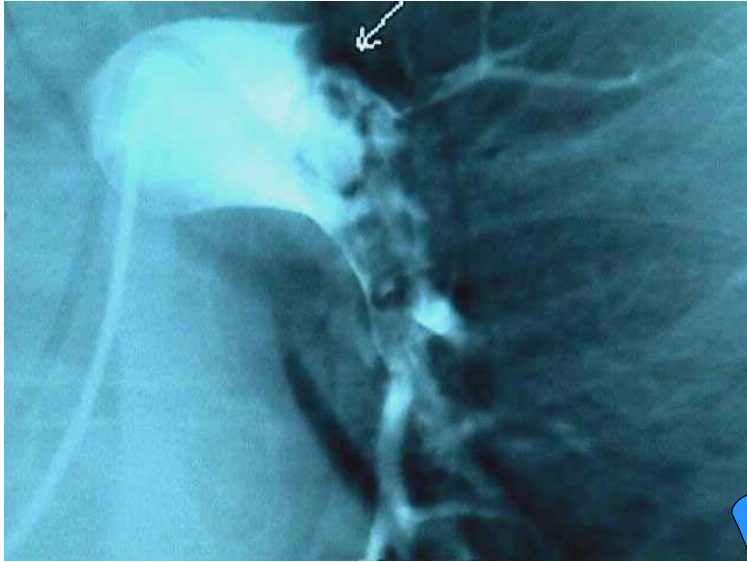


Embolus

- ▶ Preformed collection of tissue or debris travels through circulation
- ▶ Collection
 - Blood clot
 - Atherosclerotic debris
 - Vegetations from endocarditis



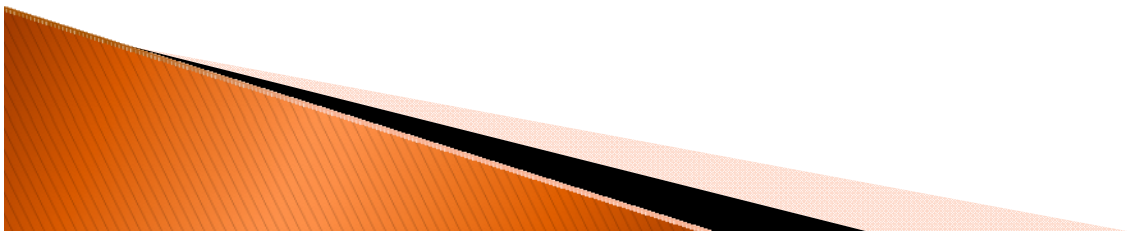


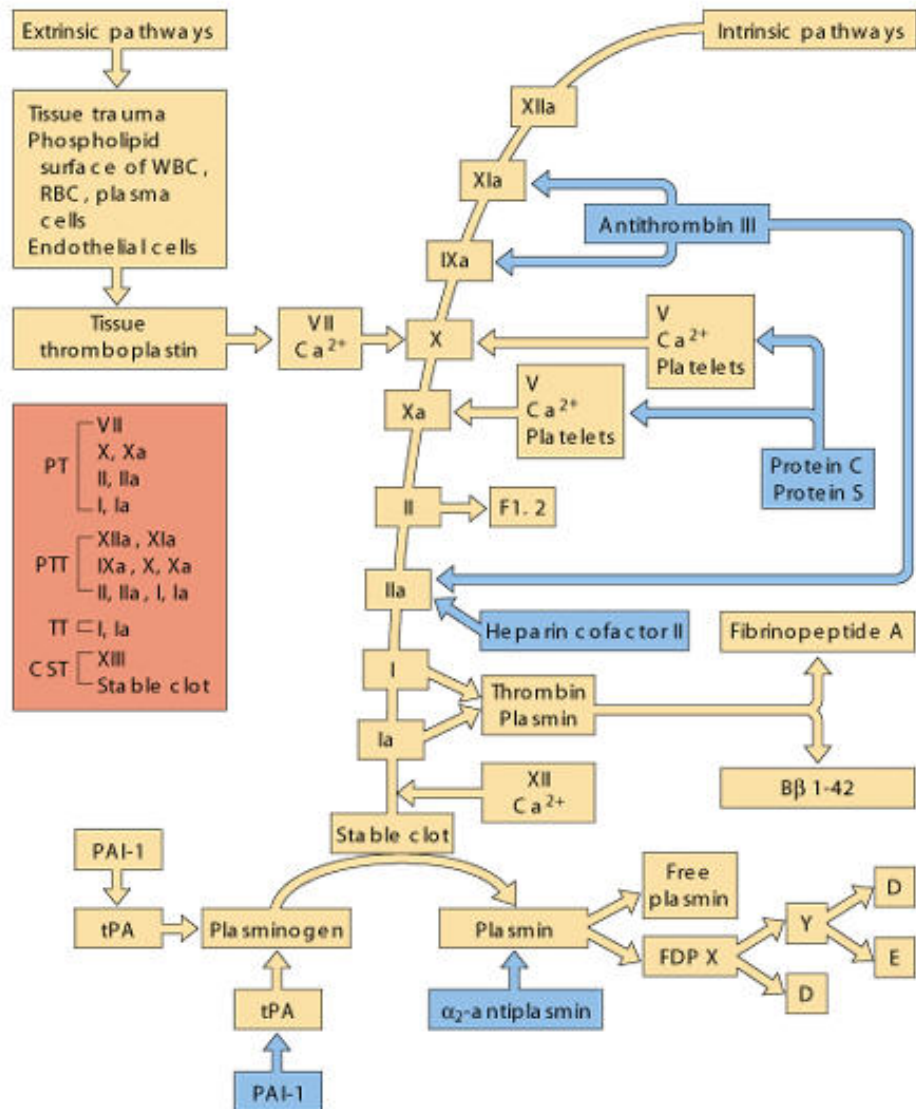




Inherited Anticoagulation factor deficiency

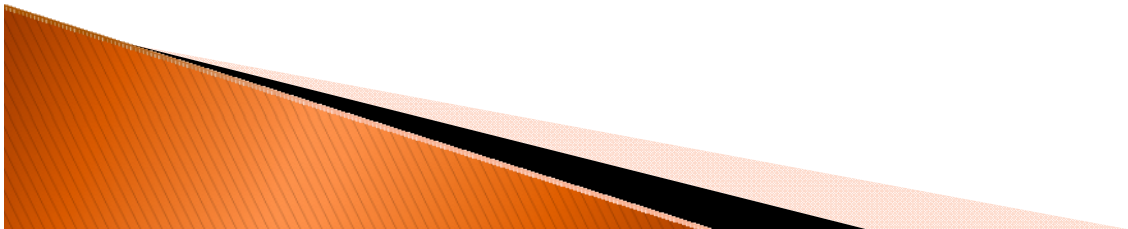
- ▶ Factor V von Leiden
- ▶ Protein C deficiency
- ▶ Protein S deficiency
- ▶ Antithrombin III deficiency
- ▶ Hyperhomocystinemia (HHS)





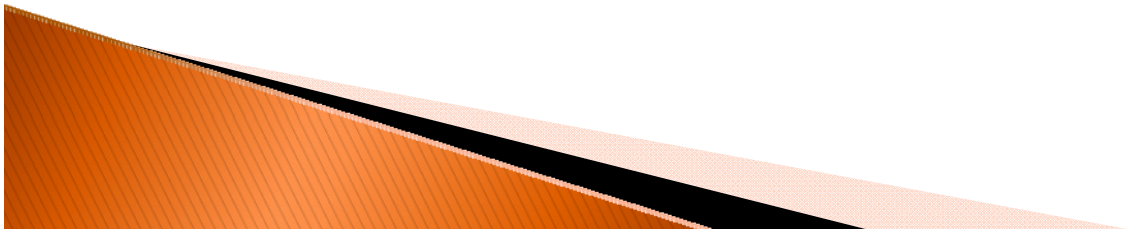
Acquired thrombophilia

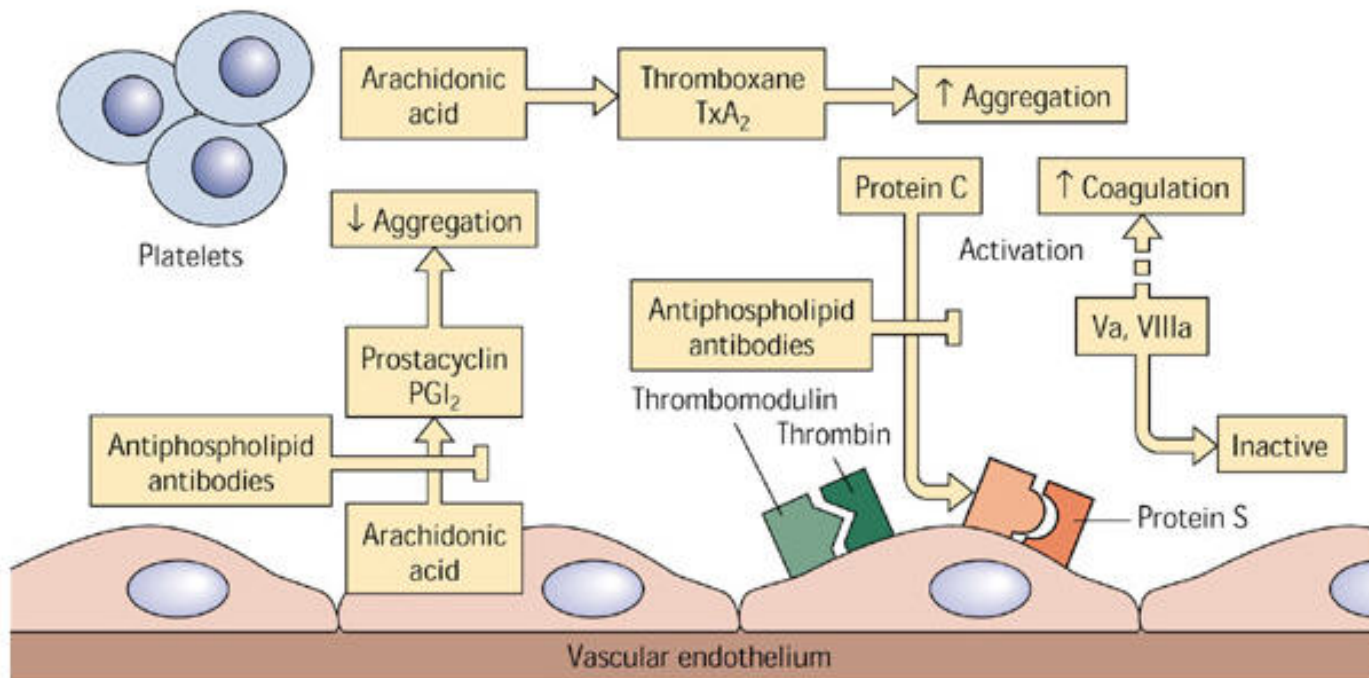
- ▶ Antiphospholipid antibody syndrome
- ▶ Hyperhomocystinemia
- ▶ Pregnancy
- ▶ Cancer
- ▶ Inflammatory bowel disease
- ▶ Birth control pills



Antiphospholipid syndrome

- ▶ Elevated Lupus antibody
- ▶ Hypercoagulability
- ▶ Pregnancy complications
 - Miscarriage
 - Pre-eclampsia
 - DVT





Hyperhomocystinemia

- ▶ **Congenital**
 - In severe form associated with mental retardation, early atherosclerosis, and thrombophilia
- ▶ **Acquired**
 - Decreased folate, B12, B6 intake
 - Smoking
 - Excessive coffee drinking
 - Pregnancy
 - Advancing age
 - Gender
 - Meds: methotrexate, cyclosporine, steroids, some anticonvulsants
- ▶ **Combined**



Hyperhomocystinemia

- ▶ Increased risk for DVT
- ▶ Pregnancy
 - Neural tube defects
 - Pre-eclampsia
 - Pregnancy loss
 - Placental abruption

