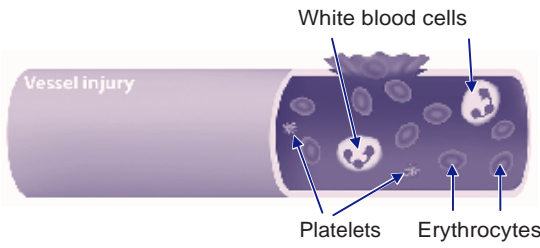


Fibrin synthesis cascade

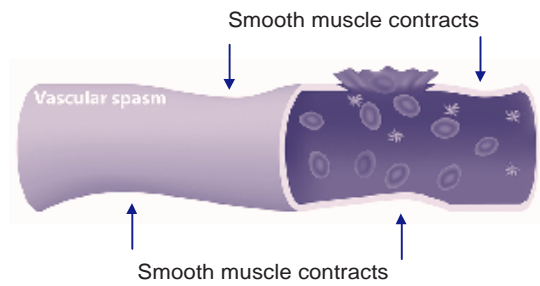
1

Injury. A blood vessel is severed. Blood and blood components (e.g., erythrocytes, white blood cells, etc.) are leaking out of the breaks.



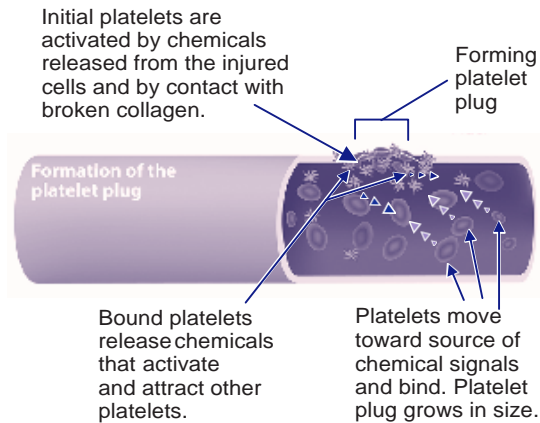
2

Vascular spasm. The smooth muscle in the vessel wall contract near the injury point, reducing blood loss.



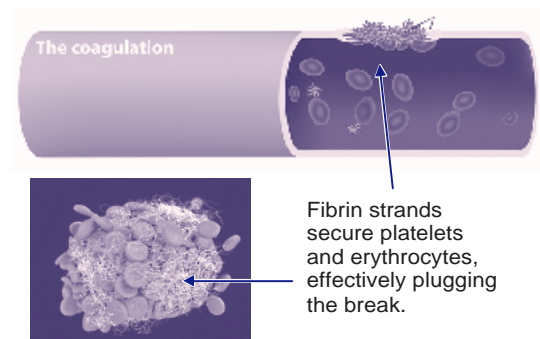
3

Platelet plug formation. Platelets are activated by chemicals released from the injury site and by contact with underlying collagen. The platelets become spiked and stick to each other and the wound site.

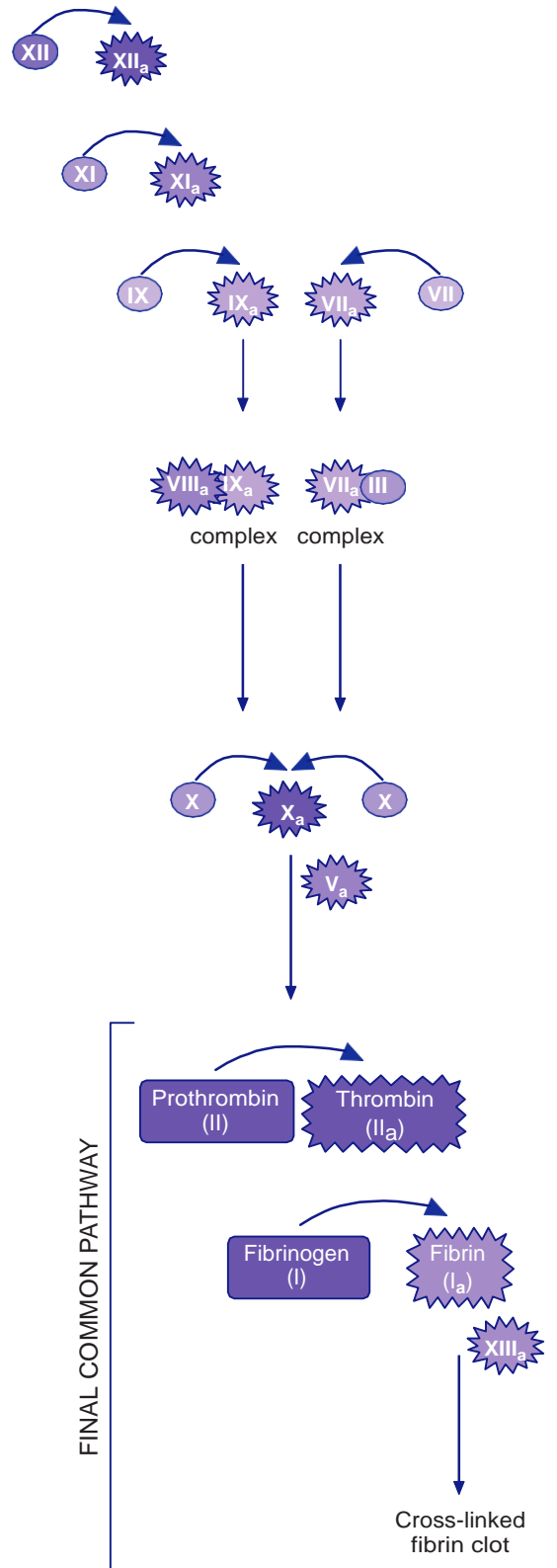


4

Coagulation. In coagulation, fibrinogen is converted to fibrin (see part b), which forms a mesh that traps more platelets and erythrocytes, producing a clot.



(a) The general steps of clotting



(b) Fibrin synthesis cascade