

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



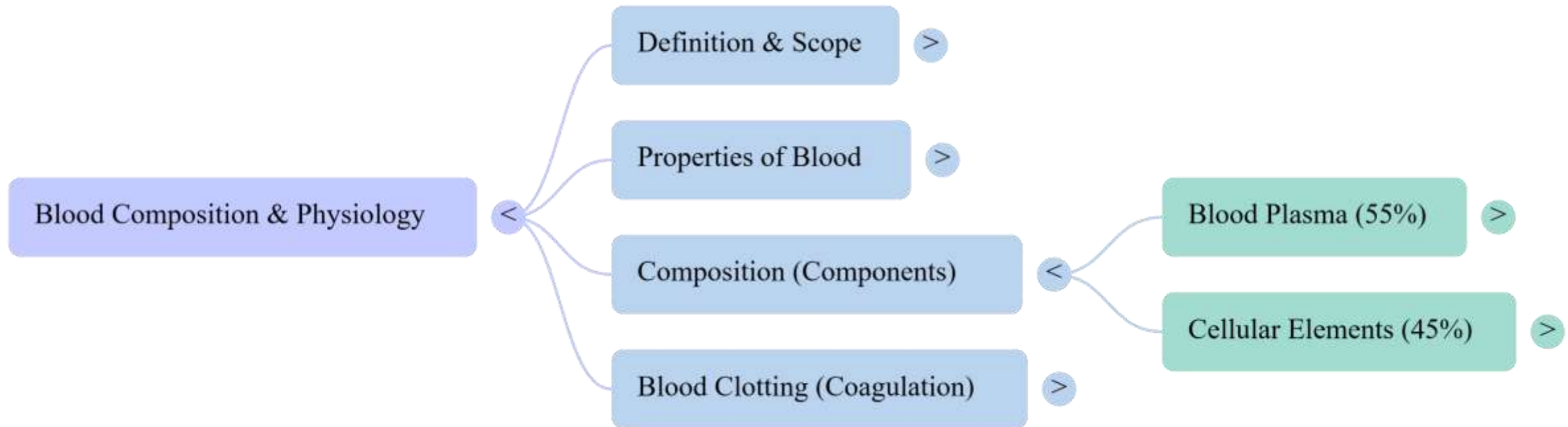
Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi. Coimbatore -641035

COURSE NAME : HUMAN ANATOMY & PHYSIOLOGY (BP301 T)

YEAR : I SEM/I YEAR

TOPIC : BLOOD CLOTTING

MIND MAP



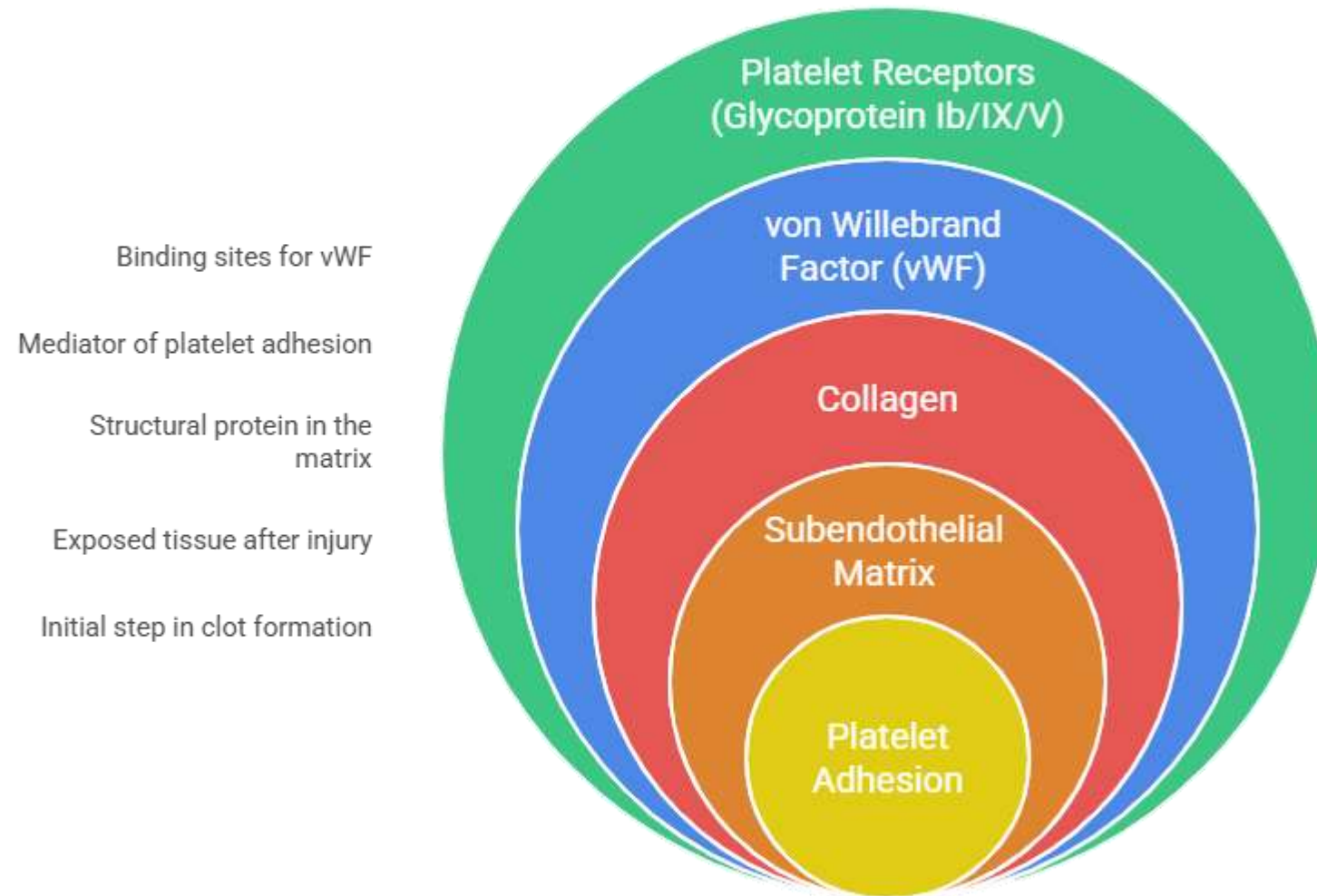
Blood Clotting Process



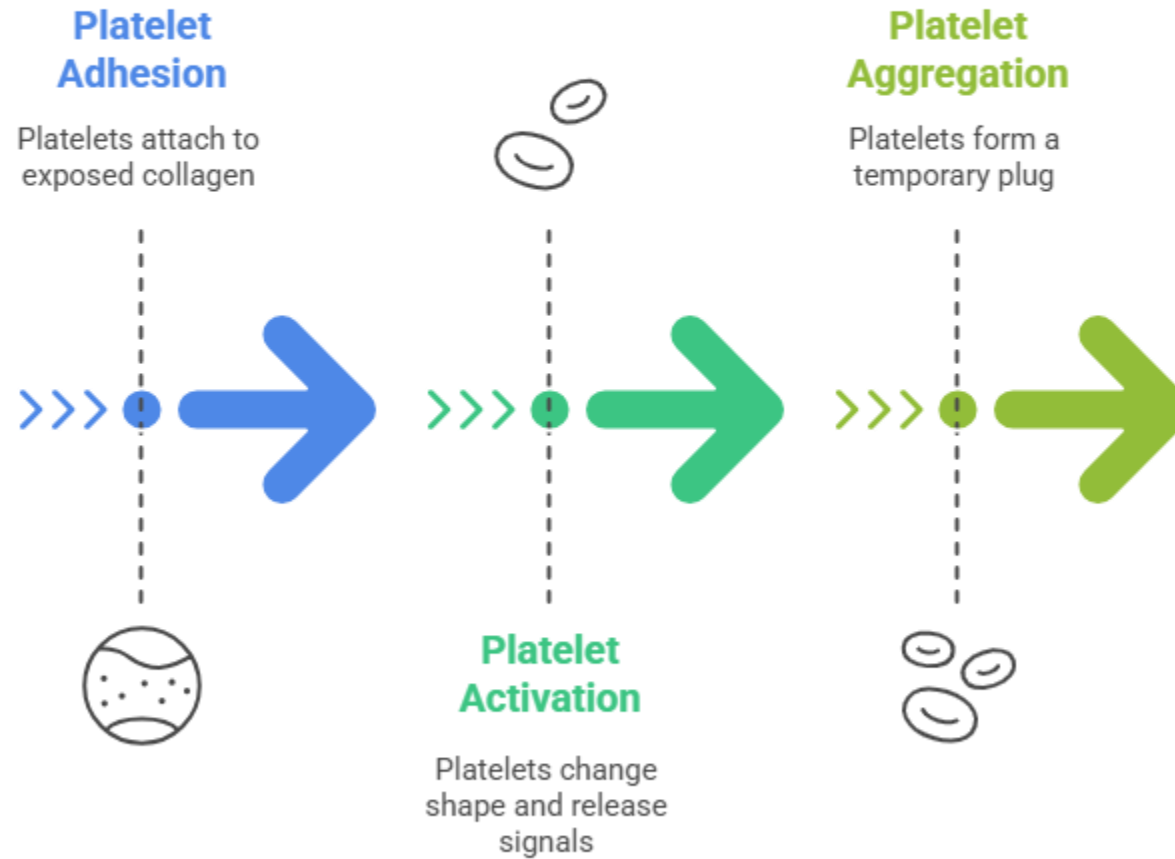
-  Overview of Blood Clotting
-  Exploration of Factors
-  Pathways and Mechanisms
-  Regulatory Mechanisms
-  Formation of Stable Clot
-  Prevention of Excessive Bleeding
-  Maintenance of Vascular Integrity

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Platelet Adhesion in Hemostasis

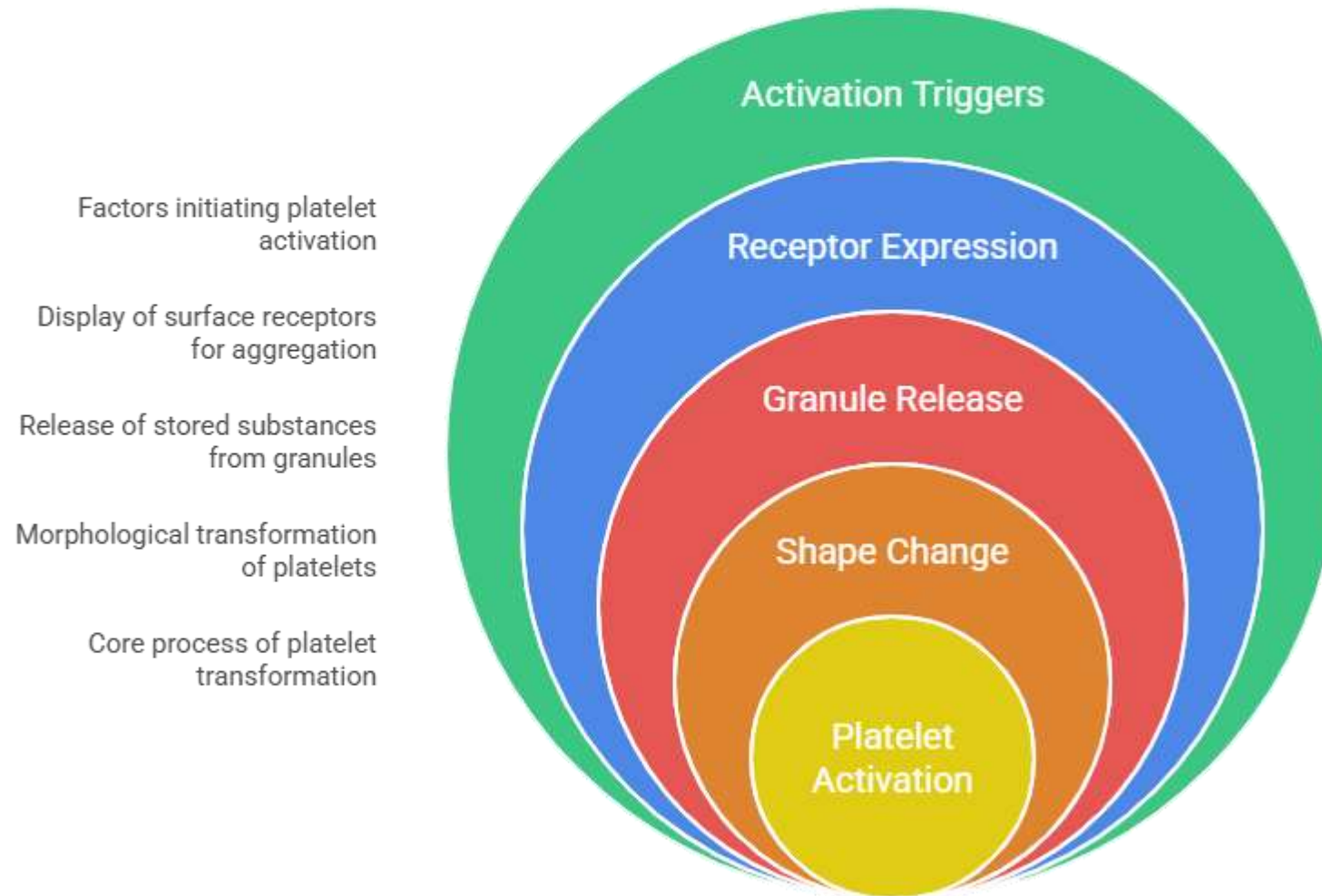


Primary Hemostasis Process

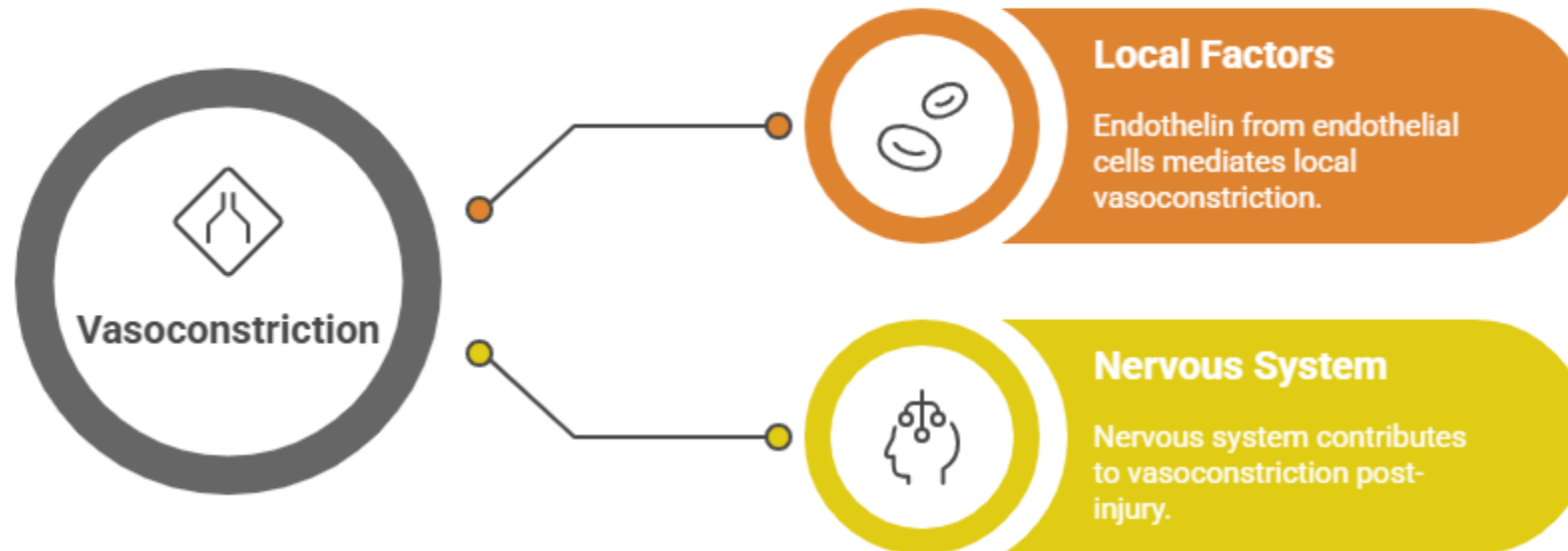


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Platelet Activation Process



Unveiling the Mechanisms of Vasoconstriction



Platelet Aggregation Cycle

Platelet Aggregation
Platelets aggregate to form a plug.



Platelet Activation

Platelets become activated at the injury site.

Fibrinogen Binding

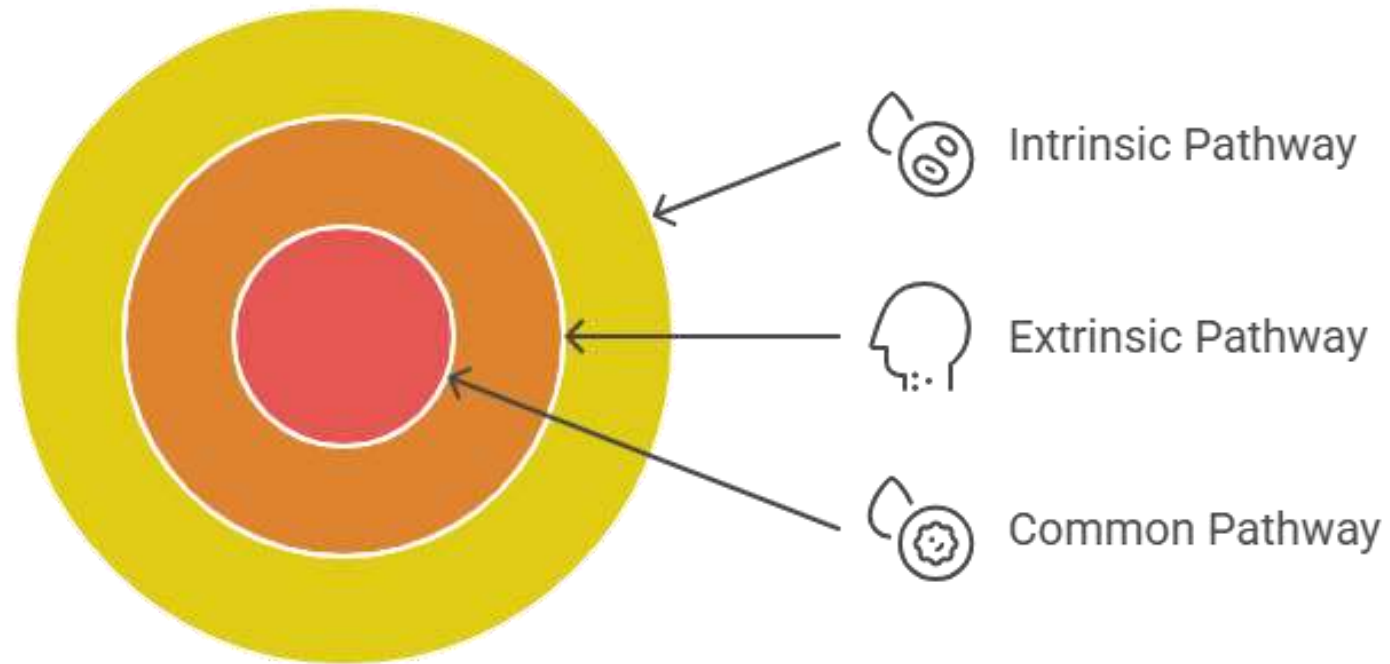
Fibrinogen binds to platelet receptors.

The Coagulation Cycle



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Coagulation Cascade Pathways



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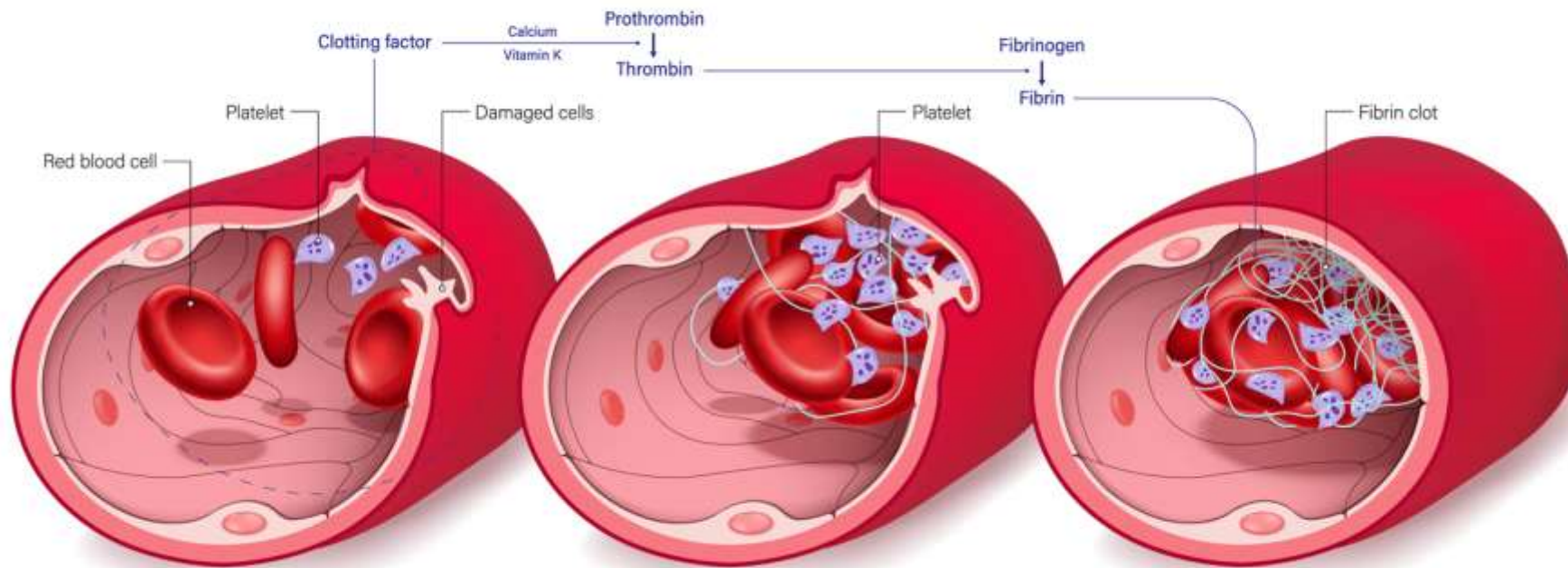
Blood Clotting Process

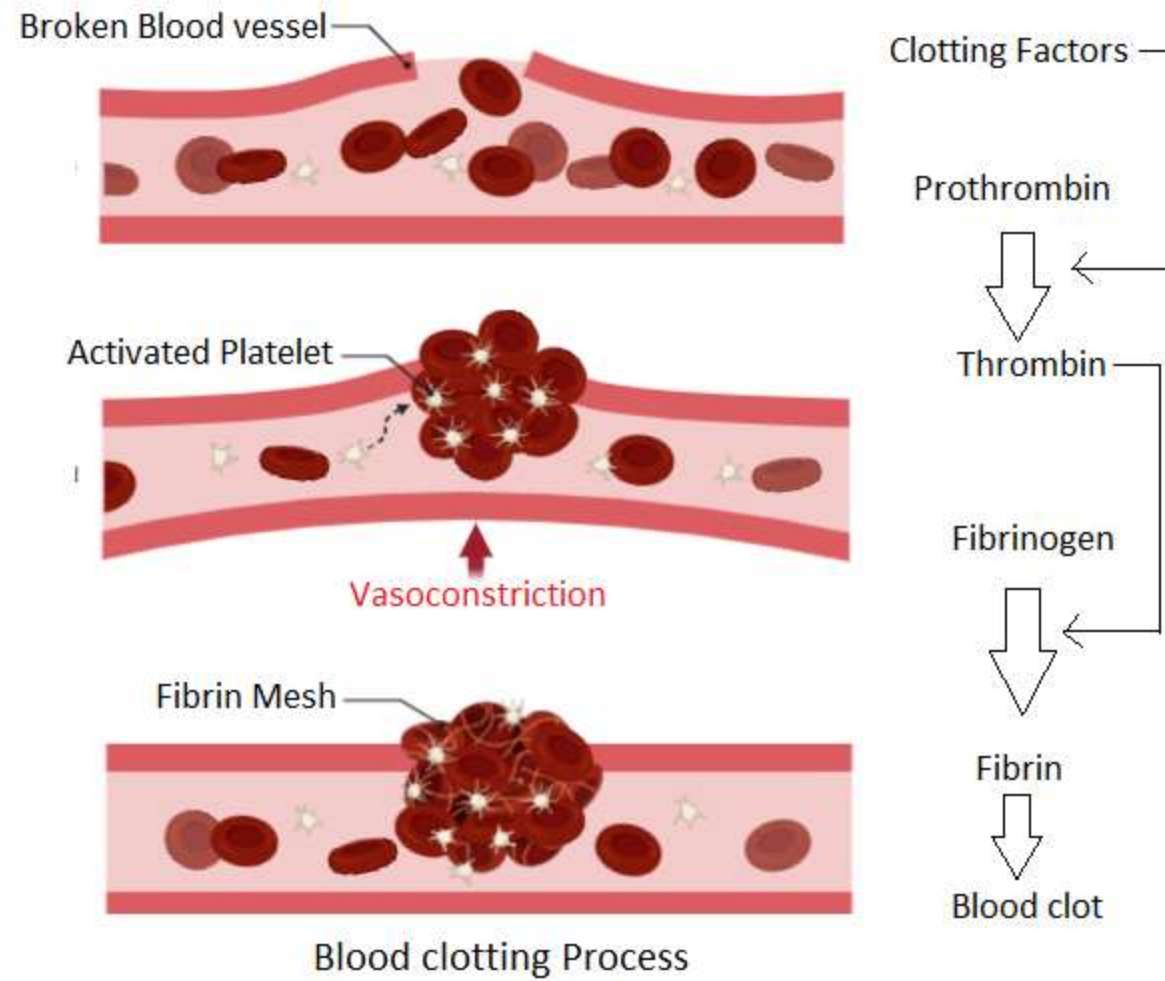


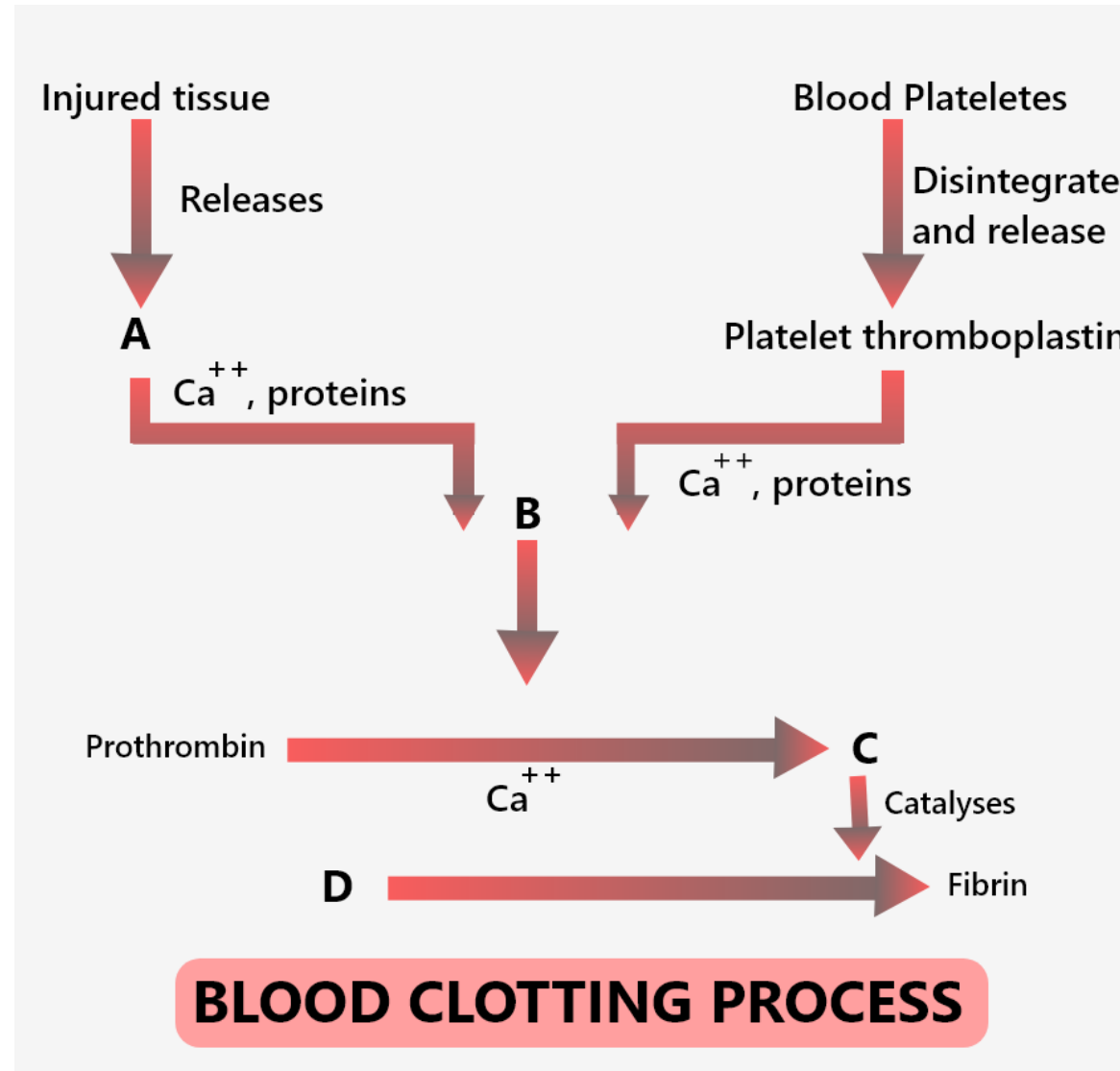
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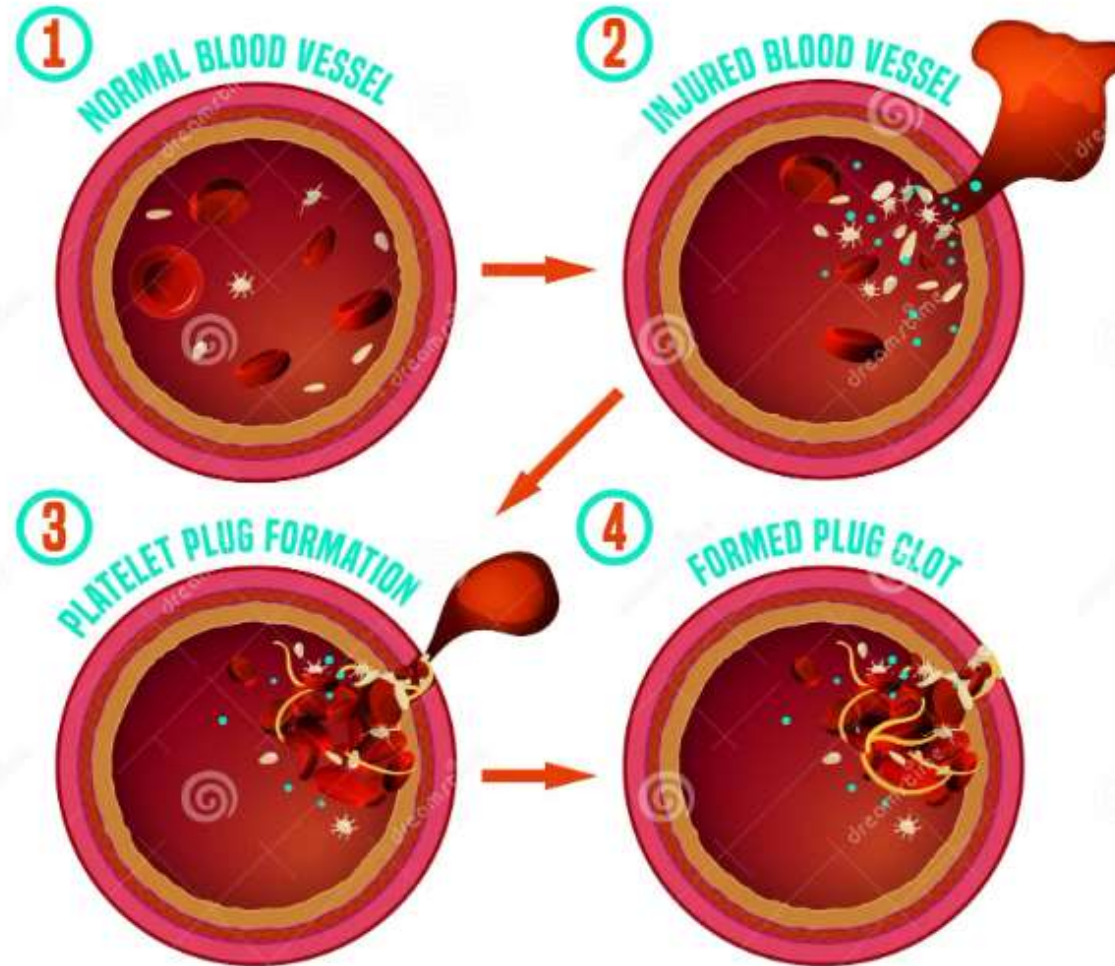
Blood Clotting



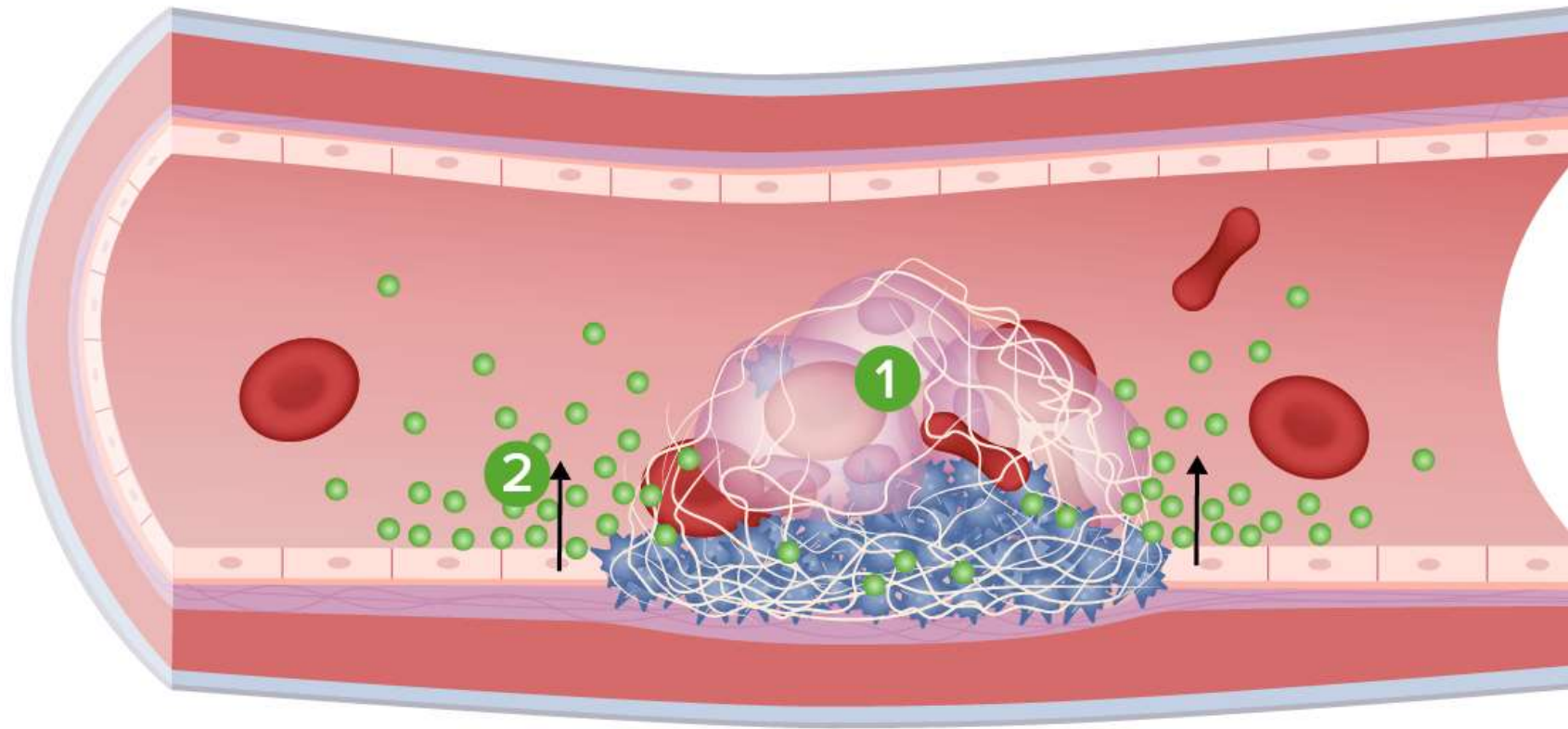




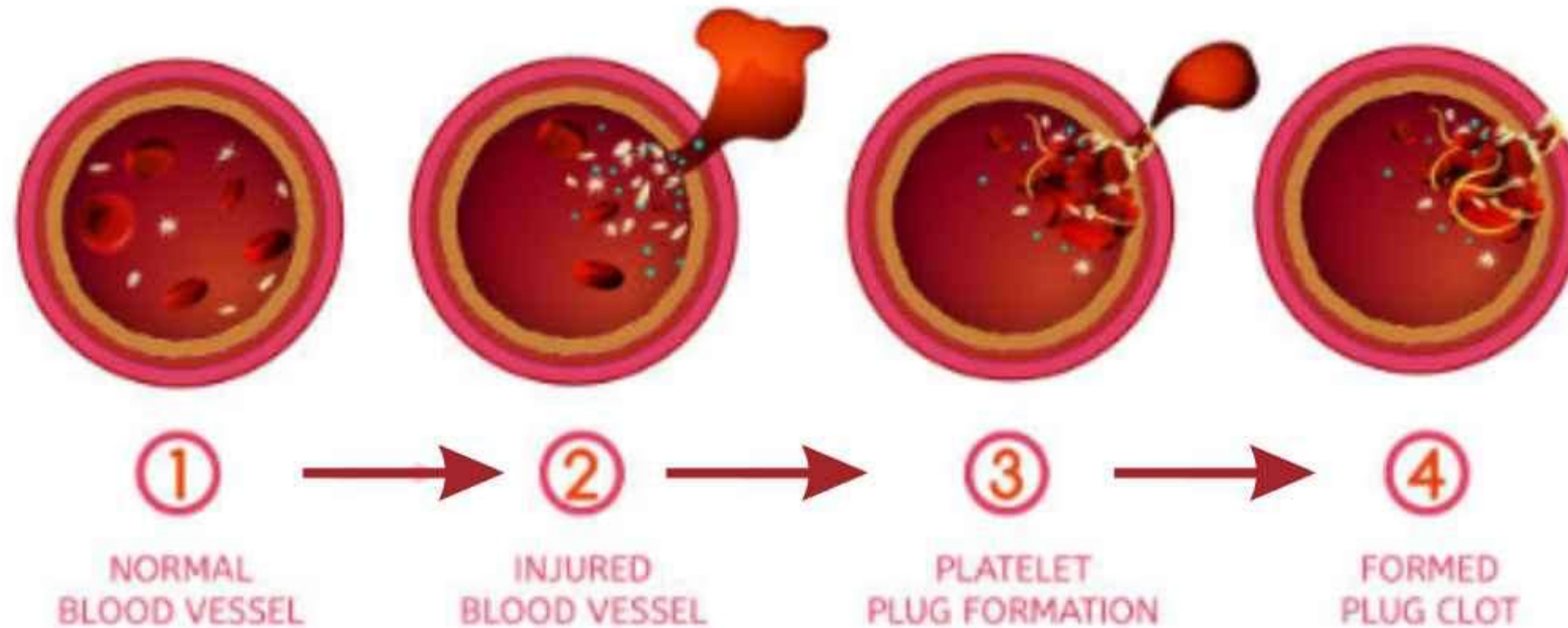
HOW BLOOD CLOTS



Blood clot formation



Process of Coagulation



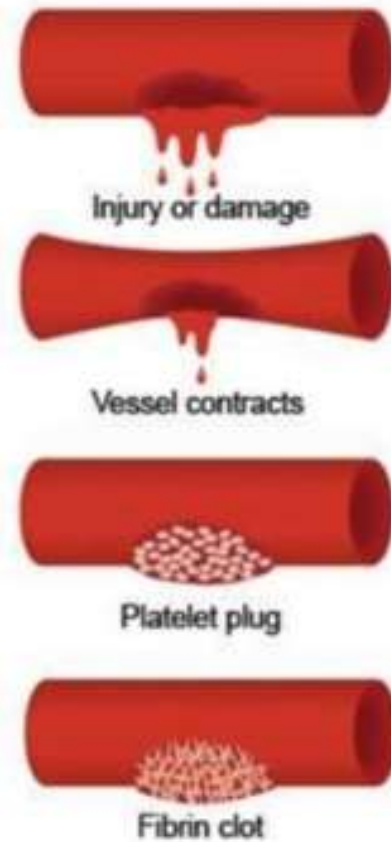


CLASS ASSESSMENTS

FIND THE FACTOR BY SEEING THE PICTURE?



SUMMARY



Process

- Injury/ rupture to blood vessel
- Blood vessel around wound constrict - reduce blood flow to the damaged area.
- Activated Platelets stick to injury site
- Platelets become sticky and clump together to form platelet plug.
- Platelets & damaged tissue release clotting factors (eg. Factor VIII)
- Blood clotting mechanism to form Fibrin which acts like a mesh to stop the bleeding.

REFERENCE

- ✓ Essentials of Medical Physiology, K. Sembulingam & P. Sembulingam (Jaypee Brothers Medical Publishers)
- ✓ A Textbook of Human Anatomy and Physiology-I, SIA Publishers
- ✓ Human Anatomy & Physiology Gerard J. Tortora & Bryan H. Derrickson (Wiley)
- ✓ Ross and Wilson anatomy and physiology in health and illness, Anne Waugh & Allison Grant.

