

Mediator	Action	Mediator	Action
Cell Derived		Plasma Derived	
Histamine	<ul style="list-style-type: none"> - Vasodilation - ↑ Vascular Permeability - Endothelial Activation - ↑ P-selectin 	Complement	
Serotonin	<ul style="list-style-type: none"> - Vasoconstriction - ↑ Vascular Permeability 	C3a	- Mast Cell Degranulation (Histamine)
Prostaglandins	Derived from COX (cyclooxygenase)	C5a	<ul style="list-style-type: none"> - Mast Cell Degranulation (Histamine) - Neutrophil Chemotaxis - ↑ Integrin
PGI₂	<ul style="list-style-type: none"> - Vasodilation - ↓ platelet aggregation (↑cAMP) 	C3b	- Opsonin for Phagocytosis
PGD₂	<ul style="list-style-type: none"> - Vasodilation - ↑ Vascular Permeability 	C5b-9	- MAC
PGE₂	<ul style="list-style-type: none"> - Vasodilation - ↑ Vascular Permeability - Pain & Fever 	Kinins	<ul style="list-style-type: none"> - Kallikrein cleaves HMWK → Bradykinin - Vasodilation - ↑ Vascular Permeability - Pain - Smooth Muscle Contraction
Thromboxane	Derived from COX (cyclooxygenase)	Hageman Factor XII	<ul style="list-style-type: none"> - Inactive pro-inflammatory protein - Activated by collagen, platelets or BM - Activates: <ul style="list-style-type: none"> - Coagulation system - Fibrinolysis system - Kinin system
TXA₂	<ul style="list-style-type: none"> - Vasoconstriction - ↑ Platelet Aggregation (↓cAMP) 	Thrombin	- Cleaves Fibrinogen → Fibrin (forms clot)
Leukotrienes	Derived from LOX (5-Lipoxygenase)	Plasmin	<ul style="list-style-type: none"> - Breaks down Fibrin clots - Cleave complement C3 - Activates Hageman Factor XII
LTB₄	<ul style="list-style-type: none"> - Chemotaxis - ↑ Integrin 		
LTC₄	<ul style="list-style-type: none"> - Vasoconstriction 		
LTD₄	<ul style="list-style-type: none"> - ↑ Vascular Permeability 		
LTE₄	<ul style="list-style-type: none"> - Bronchoconstriction 		
PAF Platelet Activating Factor	<ul style="list-style-type: none"> - ↑ Platelet Aggregation - Bronchoconstriction - Vasodilation - ↑ Vascular Permeability 		
NO Nitric Oxide	<ul style="list-style-type: none"> - Vasodilation - Vascular Smooth Muscle Relaxation - ↓ platelet aggregation 		
Chemokines	<ul style="list-style-type: none"> - Chemotaxis - Leukocyte Activation 		

Neutrophil Chemotaxis

- LTB₄, C5a, IL-8

Mediators of Pain

- PGE₂ & Bradykinin

Mediators of Fever

- PGE₂, IL-1, TNF

