

Mediator	Action	Mediator	Action
<b>Cell Derived</b>		<b>Plasma Derived</b>	
<b>Histamine</b>	<ul style="list-style-type: none"> <li>- Vasodilation</li> <li>- ↑ Vascular Permeability</li> <li>- Endothelial Activation</li> <li>- ↑ P-selectin</li> </ul>	<b>Complement</b>	
<b>Serotonin</b>	<ul style="list-style-type: none"> <li>- Vasoconstriction</li> <li>- ↑ Vascular Permeability</li> </ul>	<b>C3a</b>	<ul style="list-style-type: none"> <li>- Mast Cell Degranulation (Histamine)</li> </ul>
<b>Prostaglandins</b>	Derived from COX (cyclooxygenase)	<b>C5a</b>	<ul style="list-style-type: none"> <li>- Mast Cell Degranulation (Histamine)</li> <li>- Neutrophil Chemotaxis</li> <li>- ↑ Integrin</li> </ul>
<b>PGI<sub>2</sub></b>	<ul style="list-style-type: none"> <li>- Vasodilation</li> <li>- ↓ platelet aggregation (↑cAMP)</li> </ul>	<b>C3b</b>	- Opsonin for Phagocytosis
<b>PGD<sub>2</sub></b>	<ul style="list-style-type: none"> <li>- Vasodilation</li> <li>- ↑ Vascular Permeability</li> </ul>	<b>C5b-9</b>	- MAC
<b>PGE<sub>2</sub></b>	<ul style="list-style-type: none"> <li>- Vasodilation</li> <li>- ↑ Vascular Permeability</li> <li>- Pain &amp; Fever</li> </ul>	<b>Kinins</b>	<ul style="list-style-type: none"> <li>- Kallikrein cleaves HMWK → Bradykinin</li> <li>- Vasodilation</li> <li>- ↑ Vascular Permeability</li> <li>- Pain</li> <li>- Smooth Muscle Contraction</li> </ul>
<b>Thromboxane</b>	Derived from COX (cyclooxygenase)	<b>Hageman Factor XII</b>	<ul style="list-style-type: none"> <li>- Inactive pro-inflammatory protein</li> <li>- Activated by collagen, platelets or BM</li> <li>- Activates: <ul style="list-style-type: none"> <li>- Coagulation system</li> <li>- Fibrinolysis system</li> <li>- Kinin system</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Vasoconstriction</li> <li>- ↑ Platelet Aggregation (↓cAMP)</li> </ul>	<b>Thrombin</b>	<ul style="list-style-type: none"> <li>- Cleaves Fibrinogen → Fibrin (forms clot)</li> </ul>
<b>Leukotrienes</b>	Derived from LOX (5-Lipoxygenase)	<b>Plasmin</b>	<ul style="list-style-type: none"> <li>- Breaks down Fibrin clots</li> <li>- Cleave complement C3</li> <li>- Activates Hageman Factor XII</li> </ul>
<b>LTB<sub>4</sub></b>	<ul style="list-style-type: none"> <li>- Chemotaxis</li> <li>- ↑ Integrin</li> </ul>		
<b>LTC<sub>4</sub></b>	<ul style="list-style-type: none"> <li>- Vasoconstriction</li> <li>- ↑ Vascular Permeability</li> <li>- Bronchoconstriction</li> </ul>		
<b>LTD<sub>4</sub></b>			
<b>LTE<sub>4</sub></b>			
<b>PAF</b> Platelet Activating Factor	<ul style="list-style-type: none"> <li>- ↑ Platelet Aggregation</li> <li>- Bronchoconstriction</li> <li>- Vasodilation</li> <li>- ↑ Vascular Permeability</li> </ul>		
<b>NO</b> Nitric Oxide	<ul style="list-style-type: none"> <li>- Vasodilation</li> <li>- Vascular Smooth Muscle Relaxation</li> <li>- ↓ platelet aggregation</li> </ul>		
<b>Chemokines</b>	<ul style="list-style-type: none"> <li>- Chemotaxis</li> <li>- Leukocyte Activation</li> </ul>		

### Neutrophil Chemotaxis

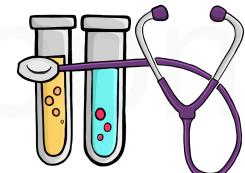
- LTB<sub>4</sub>, C5a, IL-8

### Mediators of Pain

- PGE<sub>2</sub> & Bradykinin

### Mediators of Fever

- PGE<sub>2</sub>, IL-1, TNF



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