

## Healing

First, you need a calcium to convert prothrominase and thromboplastin from prothrombin to thrombin. Thrombin is an enzyme and in the presence of fibronectin, fibronectin converts to fibrinogen. Fibrinogen is leaking out fibrin which cross-links to fibronectin. From here, you get mesh which platelets cling on to creating clots. Platelets generate thrombin to create more fibrin and follows a positive feed-back loop.

*Smaller words: Fibronectin and Fibrin cross link to create adherence to platelets to create clots.*

Platelets begin calling out for a helping hand via chemotaxis, as well as resident immune cells (macrophages). Neutrophils are the first to respond to beginning cleaning up the scene and travel to the site of injury by leaky vessels and chemical gradients.

*Summary:*

- 1. Injury*
- 2. Blood and lymphatic vessels are disrupted*
- 3. Resident macrophages*
- 4. Platelets*
- 5. Platelets and macrophages secrete cytokines*
- 6. Leaky vascular endothelium (Prostaglandins)*
- 7. Why we swell (not inflammation)*
- 8. Leaky vessels allows for migration*
- 9. Chemotaxis calls for help*
- 10. Everyone on the team helps out*