

# Revolutionizing Internal Hemorrhage Diagnostic Care

**90%** of preventable troop deaths  
**50,000** U.S. civilian deaths

Are caused by Internal Hemorrhage **annually**

## OUR MISSION

We are developing a fast, accessible, and accurate hemorrhagic diagnostic tool designed to minimize this loss of life.



The most common cause for heavy internal or external bleeding, also known as hemorrhaging, is **trauma**.



Internal hemorrhage is an **invisible injury** that cannot be easily diagnosed.



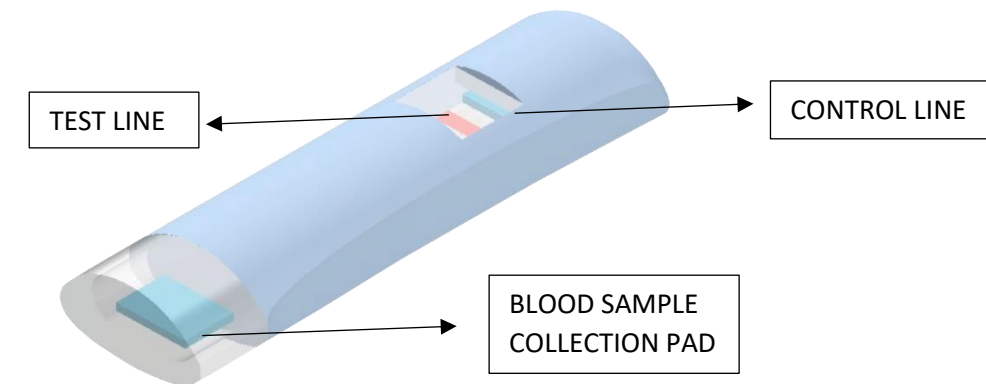
If the soldier is internally hemorrhaging, they will be **evacuated** to the nearest hospital for immediate surgical treatment.



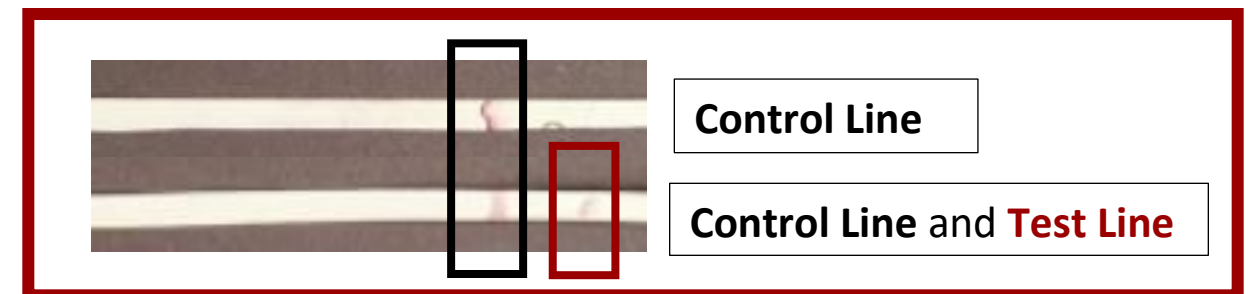
Department of Biomedical Engineering, Johns Hopkins University | Cassandra Parent, Richard Eng, Amanda Ruci, Amal Hayat, Anvith Krishnan, Feiyang Huang, Ellie Zhang, Eric Simon, Nicholas Durr

Sheba Tel HaShomer City of Health | Ariel Furer

## OUR DEVICE



Using just a small blood sample from the ear, our device uses lateral flow assay (LFA) technology to detect a hemorrhage specific biomarker. The presence of a test line indicates a positive hemorrhage result, similar to pregnancy tests.



- **Sensitive**  
Detects hemorrhage before 15% blood loss
- **Quick**  
Diagnoses hemorrhage within 15 minutes
- **Portable**  
Durable and less than 1.8Kg; long shelf life
- **Easy to Use**  
No medical training to operate and interpret