

# HEREDITARY ANGIOEDEMA (HAE)

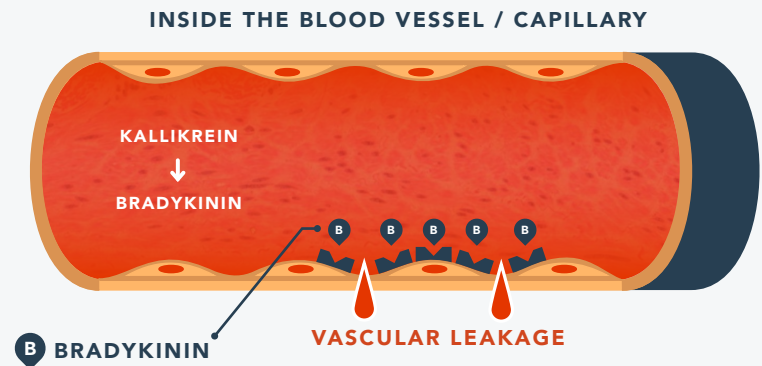
## HAE AFFECTS

**1 in 50,000**  
people worldwide

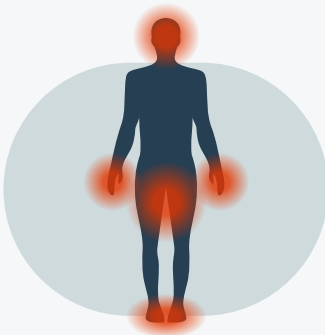
**6,000**  
people in the U.S.

### WHAT CAUSES HAE?

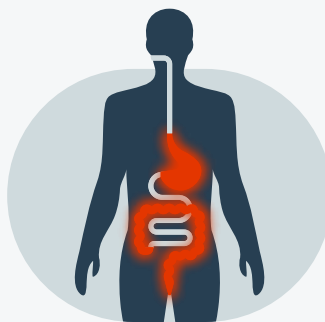
HAE is caused by mutations in a gene that codes for a key regulator of a pathway that influences blood vessel permeability. These mutations lead to too much of a protein called bradykinin, which drives excessive vascular leakage.



### SYMPTOMS MAY INCLUDE:



**SWELLING IN  
EXTREMITIES**



**STOMACH AND  
GASTROINTESTINAL  
TRACT SWELLING**



**THROAT SWELLING**