



# INFLAMMATION INFLAMMATORY RESPONSE



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(Immunity)

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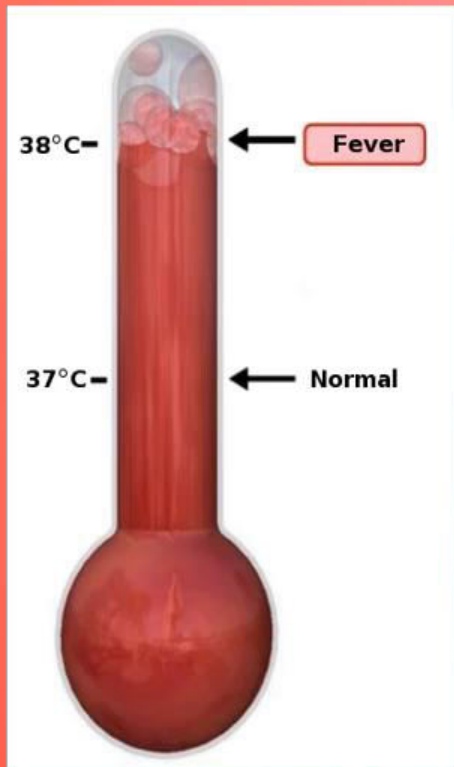
Lecture 1.

25 /2/ 2019

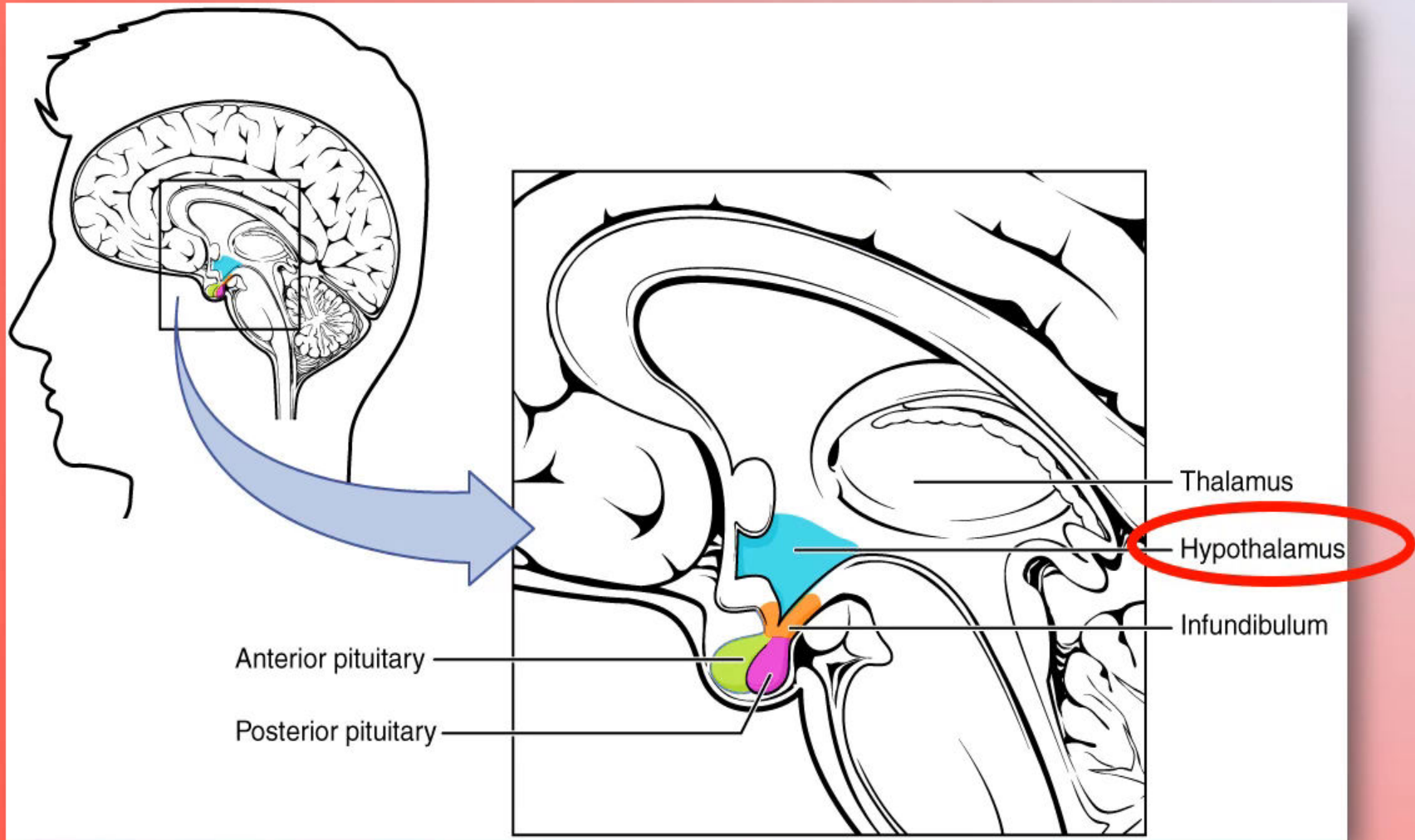
# Fever



# Fever



Fever is the body temperature above 37°C



**Endogenous Pyrogens**

**TNF**

**IL-6**

**IL-1**

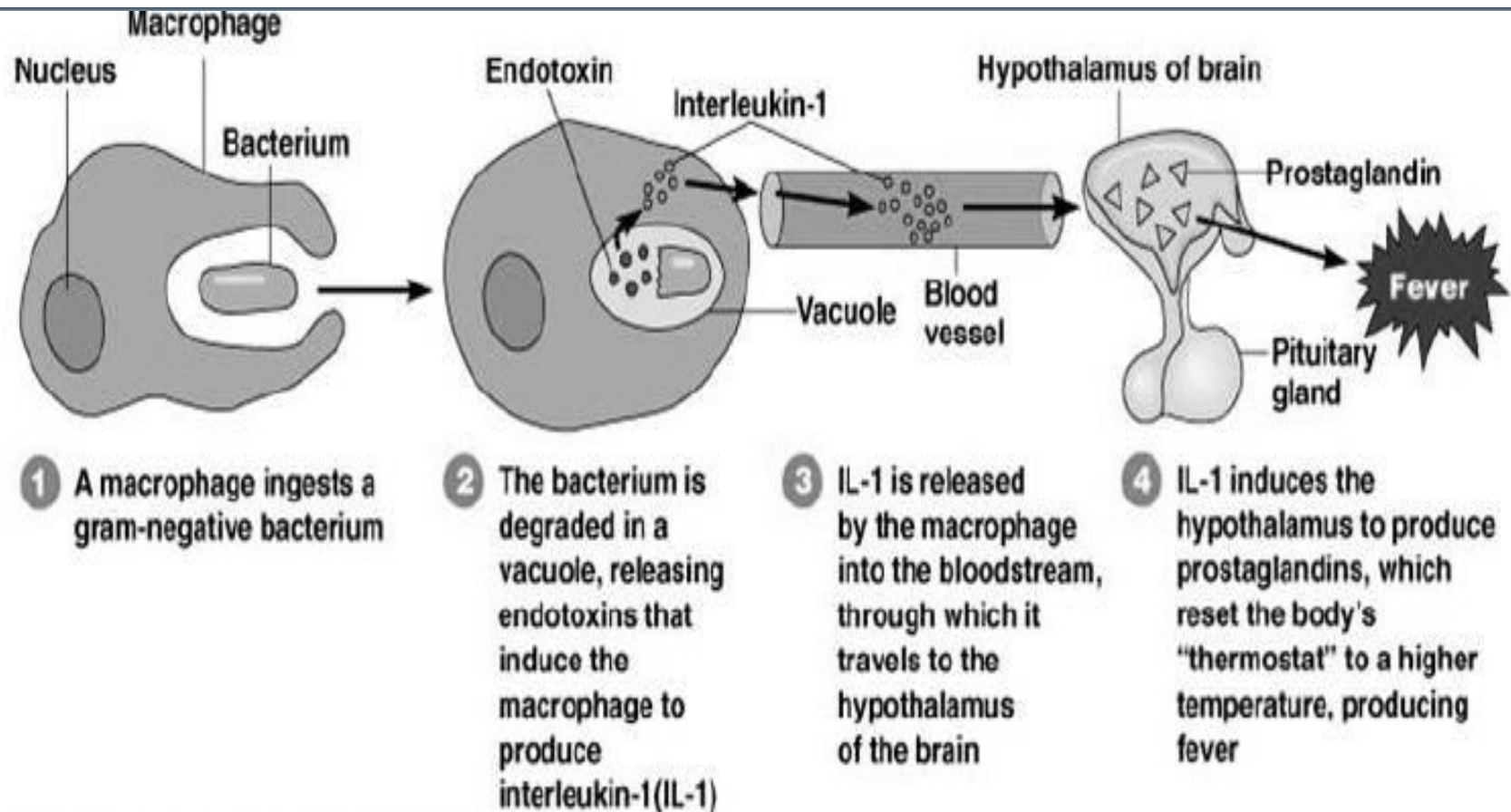
Acts on

**Hypothalamus**

**Body temperature is raised**

Frank Lectures

# Some of the contributors to fever



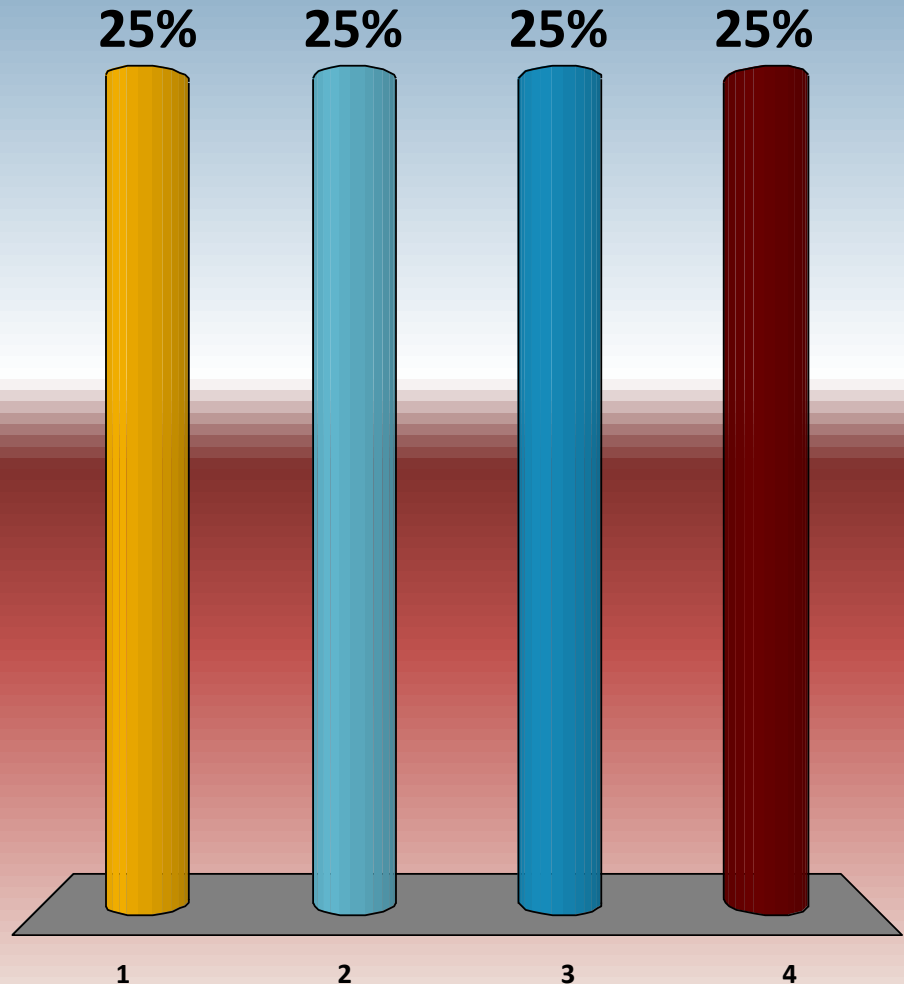


# Beneficial roles of fever

1. Enhanced effect of interferons
2. Enhanced performance of phagocytes
3. Inhibition of growth of microorganisms.
4. Increased temperature also increases the metabolic rate of tissue cells in general, speeding up repair process.

# Fever is caused by

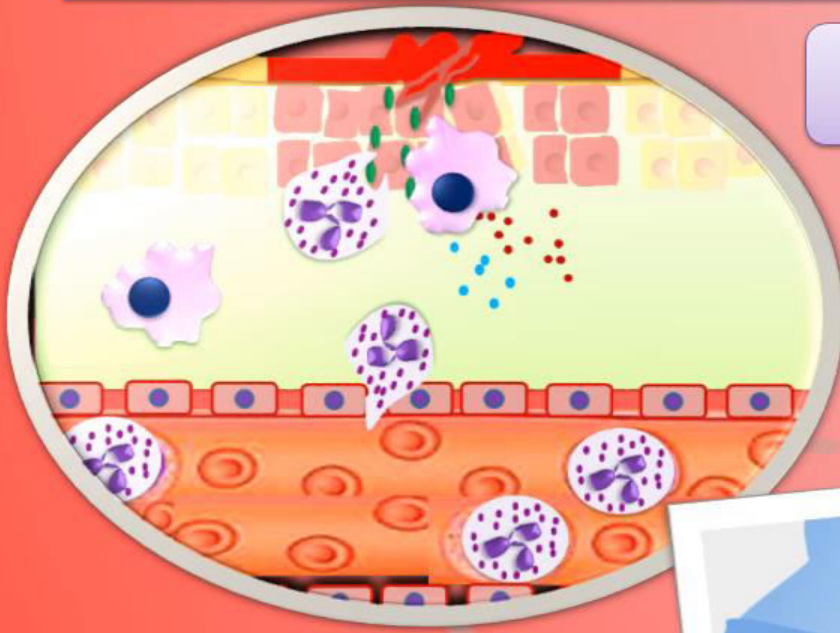
1. Toxins on the surface of viruses.
2. Release of histamines by damaged cells.
3. Your own body's accumulated toxins.
4. Your body's pyrogens signaling the hypothalamus.





# SUMMARY

## Inflammation



✓ Elimination of invading microbes

✓ Prevents spread of infection

✓ Tissue repair



## **Stimulus,**

E.g. when tissues are injured by bacteria, trauma, toxins, heat or any other cause

**Mast Cells**  
activated.

**Histamine**  
released.

**Cytokines**  
released.

**Histamine**

released.

**causes vasodilation  
and increased  
permeability of blood  
capillaries**

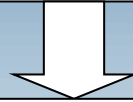
**Cytokines**

released.

**Phagocytes**  
attracted to site of  
infection.

**Cells of the  
immune system  
reach site of  
infection.**

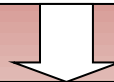
Cells of the immune system reach site of infection.



Complement  
(antimicrobial proteins)  
amplifies the immune response.



Clotting elements  
promote  
Coagulation  
of the blood.



Healing

- **Why aren't non-specific defenses enough? Why do we also need specific defenses?**
- **Next lecture we will discuss the adaptive immunity.**

THANK YOU  
FOR  
ATTENTION