



Erasmus+

2020-1-SK01-KA201-078297



# Immune system

Defense functions of the organism – How does the immune system work?



## WHAT IS IMMUNE SYSTEM?

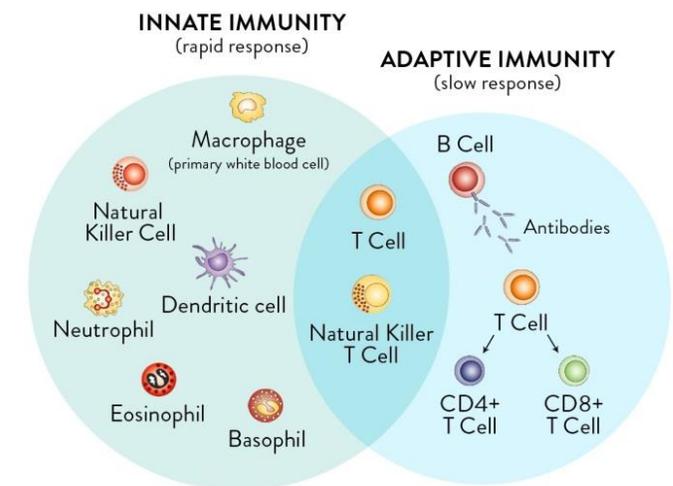
- A complex of mechanisms and reactions of the organism that protect it against diseases and inflammation
- The main task is to distinguish between own and foreign cells





## IMUNITY

- Immunity - the body's ability to respond to an antigen with an immune response
- Non-specific immunity - innate, fast and always the same response to pathogens
- Specific immunity - reacts only with the antigen that caused it





## ANTIGEN, IMMUNOLOGY

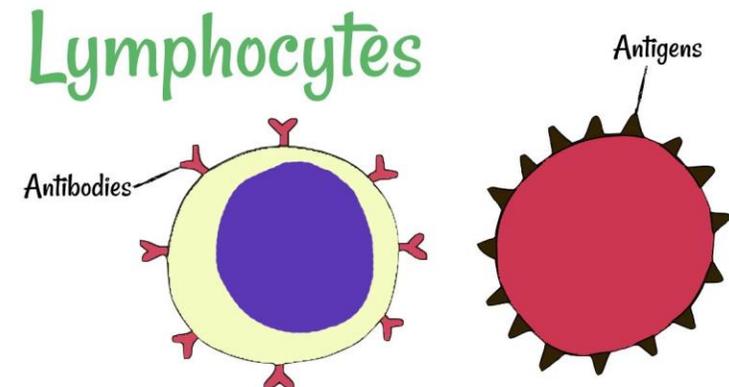
- Antigen - a foreign substance that is able to elicit an immune response in the body
- Immunology - a science dealing with the immune system and immunity





## COMPONENTS OF IMMUNE SYSTEM

- Lymphatic organs - bone marrow, thymus, spleen, lymph nodes, tonsils
- Lymphatic tissues
- Lymphatic vessels
- Cells - lymphocytes, antibodies, granulocytes



## ALLERGY

- The antigen can cause the so-called hypersensitivity - allergy
- Anaphylactic shock - exaggerated reaction of the immune system (breathing difficulties, swelling of the tongue and lips, ...)



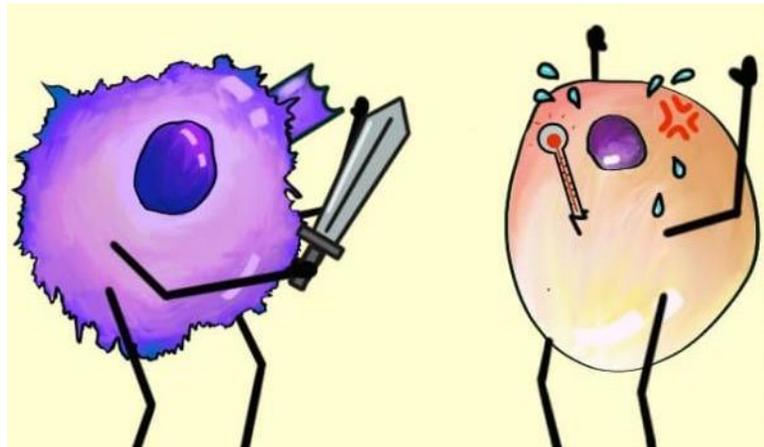
## ALLERGY

- It is usually formed by inhalation of certain substances - allergens
- Skin changes, sneezing, tearing



## IMMUNIZATION

- Artificial induction of immunity
- Active immunization - delivery of antigen to the body and the body itself produces antibodies (vaccination)
- Passive immunization - delivery of antibodies to the body





## PICTURES – USED SOURCES

[https://cs.wikipedia.org/wiki/Imunitn%C3%AD\\_syst%C3%A9m](https://cs.wikipedia.org/wiki/Imunitn%C3%AD_syst%C3%A9m)

[https://www.wikiskripta.eu/w/Specifick%C3%A1\\_imunita](https://www.wikiskripta.eu/w/Specifick%C3%A1_imunita)

[https://www.wikiskripta.eu/w/Nespecifick%C3%A1\\_imunita](https://www.wikiskripta.eu/w/Nespecifick%C3%A1_imunita)

<https://www.youtube.com/watch?v=pFe3SSWy9mE>

<https://biopedia.sk/clovek/imunitny-system>

<https://oskole.detiamy.sk/clanok/imunitny-system-a-imunita>