



Erasmus+

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Immune system

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



WHAT IS IMMUNE SYSTEM?

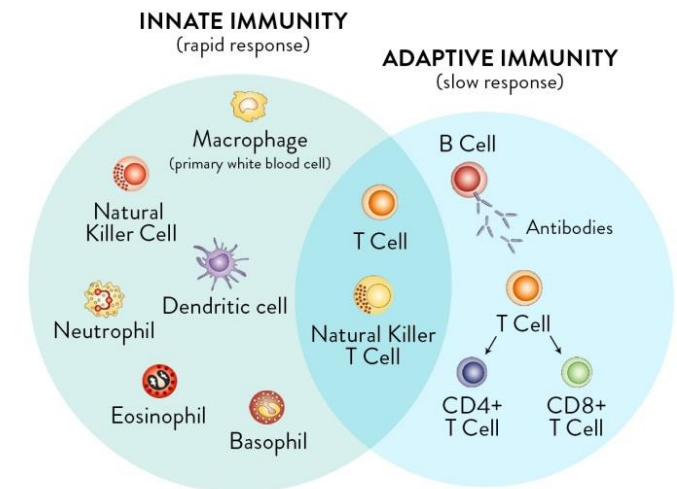
- A complex of mechanisms and reactions of the organism that protect it against diseases and inflammation
- The main task is to distinguish between own and foreign cells





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

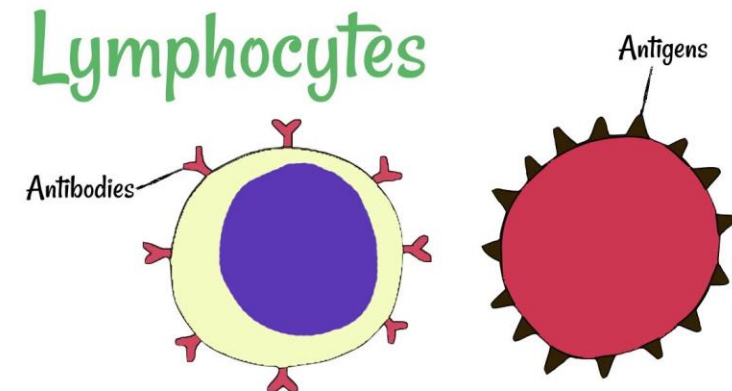
- Antigen - a foreign substance that is able to elicit an immune response in the body
- Immunology - a science dealing with the immune system and immunity





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, ...)



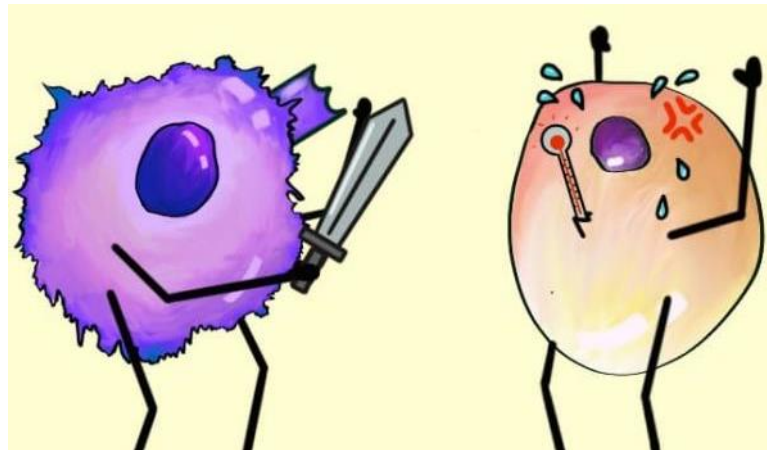
ALLERGY

- 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://www.wikiskripta.eu/w/Specifick%C3%A1_imunita

https://www.wikiskripta.eu/w/Nespecifick%C3%A1_imunita

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