

Focus:

To be able to describe the mechanics behind vaccines.

To be able to describe how allergies work.

To be able to describe the effect of having AIDS.

Factors Affecting the Immune System

* Vaccines are a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ version of an antigen given to people to protect them from getting a disease. A few types of vaccines include:
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_, attenuated vaccines (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vaccines)
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vaccines (dead pathogens)
* Vaccines work by stimulating your immune system to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ antibodies to destroy the pathogen. These antibodies will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when the pathogen enters the body again.
* Booster shots increase antibody \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and extend the immune system’s memory for that antigen.

Disorders of the Immune System

* An allergy is an unusually high \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to a substance.
* Any substance that causes an allergic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is caused an allergen.

Think-pair-share:

Name some common allergens:

Think-pair-share:

Describe some common symptoms of an allergy:

* Side effects of an allergic reaction are a result of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Histamine is a chemical that your body releases when you need to fight \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Exposure to some substances can trigger a severe reaction called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ shock. Anaphylactic shock can cause swelling, difficulty \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and sometimes death.
* Acquired Immunodeficiency Syndrome (AIDS) is an infection of the immune system that leads to health \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and often death.
* AIDS is caused by the human immunodeficiency virus (HIV) that attacks the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ system by infecting helper T cells.

Think-pair-share:

What do you think would be the direct result of HIV infecting helper T cells?

Think-pair-share:

Describe ways that HIV can be transmitted and how it can be prevented: