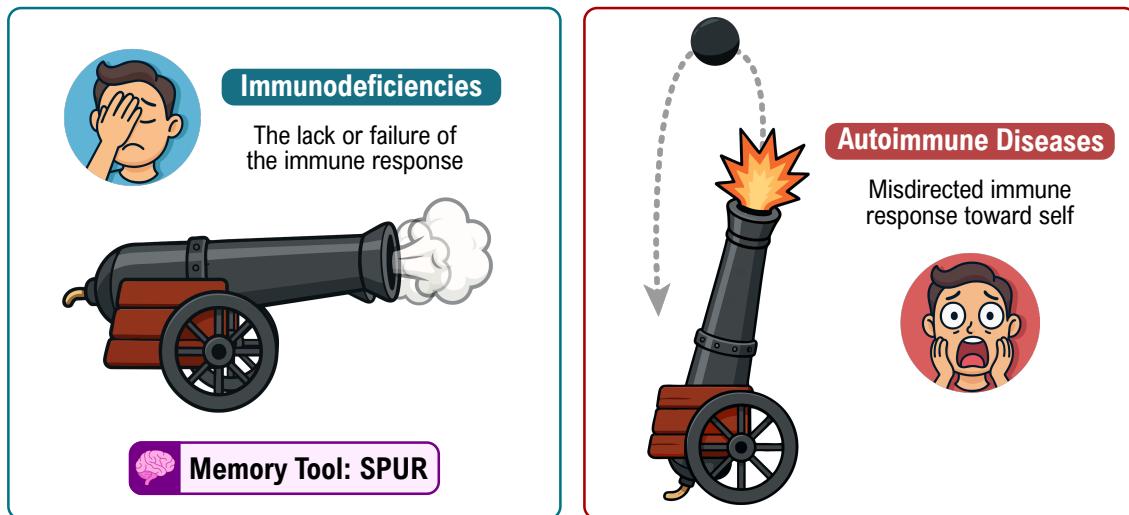


TOPIC: IMMUNODEFICIENCY DISORDERS

Immunodeficiency Disorders

- ◆ **Immunodeficiency Disorder:** chronic _____ or *failure* of a sufficient immune response.
 - Leads to _____ susceptibility: **severe, persistent, unusual, repeated infections** & _____ vaccine responses.



- ◆ Immunodeficiency disorders can be primary or secondary.

Primary Immunodeficiencies

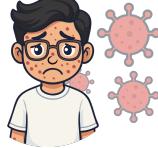
- ◆ **Primary (Congenital) Immunodeficiencies:** _____ disorder usually present from _____.
 - Are generally _____; can affect complement system, phagocytes, B cells, T cells or a combination.

Primary Immunodeficiency	Defect	Manifestation
Chronic Granulomatous Disease	Ineffective phagocytes.	Frequent & severe infections.
Bruton's (X-linked) Agammaglobulinemia	Lack of _____ cells & lack of immunoglobulins.	Frequent & overwhelming infections.
DiGeorge Syndrome	Impaired thymus development: causes severe lack/absence of _____ cells.	Lack of cell-mediated immunity – may lead to death from secondary infection.

TOPIC: IMMUNODEFICIENCY DISORDERS

Secondary Immunodeficiencies

- ◆ **Secondary (Acquired) Immunodeficiencies:** occurs *after* birth in patients with a *previously* healthy immune system.

Factors Contributing to Secondary Immunodeficiencies	
_____ – immune system deteriorates as we age into older adulthood. 	Certain Infections/Disorders – e.g. HIV, measles. 
Malnutrition – Not enough building blocks → fewer/poorer antibodies & white blood cells. 	Medical Interventions – immunosuppressant drugs/cancer treatments (e.g. radiation, chemotherapy). 

- ◆ **AIDS (Acquired ImmunoDeficiency Syndrome):** most advanced _____ infection (kills helper T cells).
 - _____ chance of *opportunistic* infections & *rare* cancers.

EXAMPLE

Mark the following with a tick (✓) if they are a possible cause of a secondary (acquired) immunodeficiency, and a cross (X) if they are not:

1	Genetic disorders	_____
2	Malnutrition	_____
3	Concussion	_____
4	Chronic infection	_____
5	Certain medications	_____
6	Family history of immunodeficiency	_____

PRACTICE

Which of the following is an immunodeficiency characterized by a complete lack of T cells?

- a) AIDS.
- b) Bruton's agammaglobulinemia.
- c) Chronic granulomatous disease.
- d) DiGeorge Syndrome.