

# Immunodeficiency Diseases

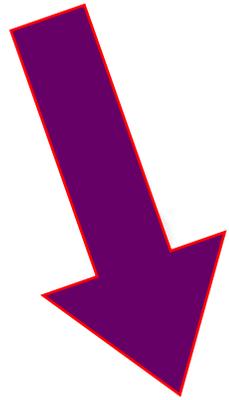
**By:** Zahra Alhasadi 2776  
Noor Alfallah 3295  
Sajid Albarasi 2925



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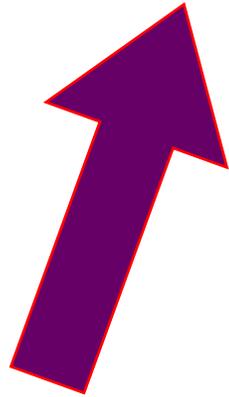
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Introduction



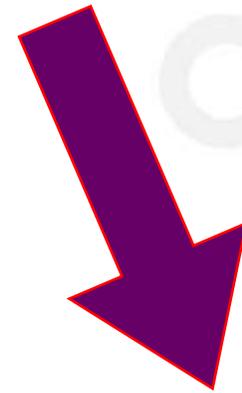
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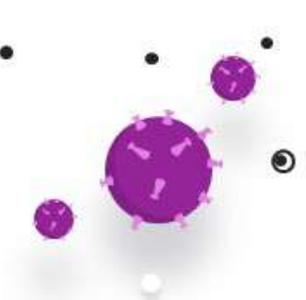
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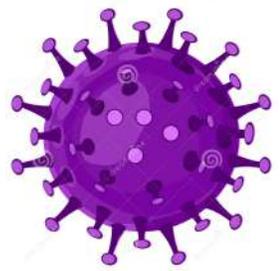


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Summary



# Introduction



Immunodeficiency disorders prevent your body from fighting infections and diseases. This type of disorder makes it easier for you to catch viruses and bacterial infections. immunodeficiency disorders are either congenital or acquired. A congenital, or primary, disorder is one you were born with. Acquired, or secondary, disorders you get later in life. Acquired disorders are more common than congenita disorders





# Types and Cause of Immunodeficiency Disorders

**Primary:** These disorders are usually present at birth and are genetic disorders that are usually hereditary. They typically become evident during infancy or childhood. However, some primary immunodeficiency disorders (such as common variable immunodeficiency) are not recognized until adulthood. There are more than 100 primary immunodeficiency disorders. All are relatively rare.



## Examples of primary immunodeficiency disorders include:

- 1** **X-linked agammaglobulinemia (XLA):** People with XLA have very few B cells, which are specialized white blood cells that help protect the body against infection
- 2** **Common variable immunodeficiency (CVID)** is an antibody deficiency that leaves the immune system unable to defend against bacteria and viruses, resulting in recurrent and often severe infections primarily affecting the ears, sinuses, and respiratory tract (sinopulmonary infections)
- 3** **Severe combined immunodeficiency (SCID)**, which is known as alymphocytosis or “boy in a bubble” disease



# Types and Cause of Immunodeficiency Disorders

**Secondary** immunodeficiency disorders happen when an outside source like a toxic chemical or infection attacks your body. The following can cause a secondary immunodeficiency disorder:

1

Severe burns

3

Radiation

5

Malnutrition

2

Chemotherapy

4

Diabetes

6

HIV

# Classification and Examples of Immunodeficiency

1

Disorders of  
specific immunity

Humoral immunodeficiencies (B cell defects)

Transcobalamin  
II deficiency

Selective  
immunoglobulin  
deficiencies  
(IgA, IgM or IgG  
subclasses)

X-linked  
agammaglobulinemia

Transient  
hypogammaglobulinemia  
of infancy

Common variable  
immunodeficiency  
(late onset  
hypogammaglobuli  
nemia)

Immunodeficiencies  
with hyper-IgM

# Classify and Examples of Immunodeficiency

1

Disorders of specific immunity

Humoral immunodeficiencies (B cell defects)

II. Cellular immunodeficiencies (T cell defects)

Purine nucleoside phosphorylase (PNP) deficiency

# Classify and Examples of Immunodeficiency

1

Disorders of  
specific immunity

Humoral immunodeficiencies (B cell defects)

III. Combined  
immunodeficiencies  
(B and T cell defects)

Episodic lymphopenia  
with lymphocytotoxin

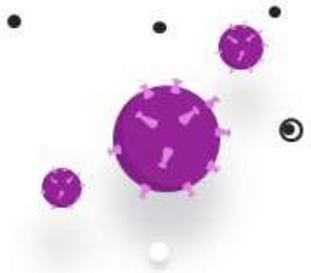
# Classify and Examples of Immunodeficiency

2

Disorders of Complement

Complement component deficiencies

Complement inhibitor deficiencies



# Classify and Examples of Immunodeficiency

3

Disorders of Phagocytosis

Myeloperoxidase deficiency

Chediak-Higashi syndrome

Chronic granulomatous disease

Job's syndrome

Leukocyte G6PD deficiency

# Summary

Immunodeficiency disorders impair the immune system's ability to defend the body against foreign or abnormal cells that invade or attack it (such as bacteria, viruses, fungi, and cancer cells).

Immunodeficiency disorders have two types congenital (primary) or acquired (secondary) Many primary immunodeficiency disorders are inherited

Secondary immunodeficiency disorders These disorders can result from Prolonged (chronic) and/or serious disorders such as diabetes or cancer

# Summary

Classification of Immunodeficiency include

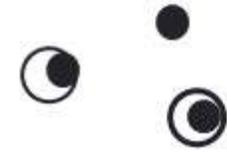
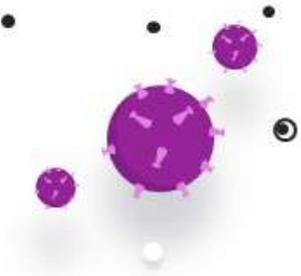
Disorders of specific immunity I. Humoral immunodeficiencies (B cell defects)

II. Cellular immunodeficiencies (T cell defects)

III. Combined immunodeficiencies (B and T cell defects)

Disorders of complement

# References



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Thank  
You!