

Immunodeficiency Diseases

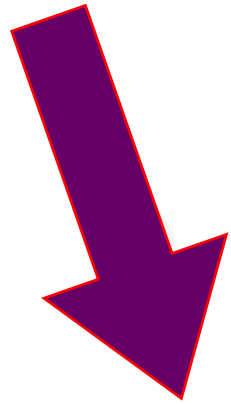
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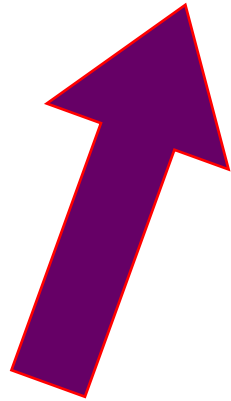
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Introduction



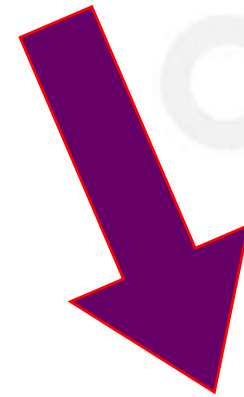
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Introduction



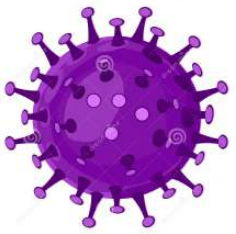
Immunodeficiency disorders prevent your body from fighting infections and diseases. This type of disorder makes it easier for you to catch viruses and bacterial infections. immunodeficiency disorders are either congenital or acquired. A congenital, or primary, disorder is one you were born with. Acquired,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

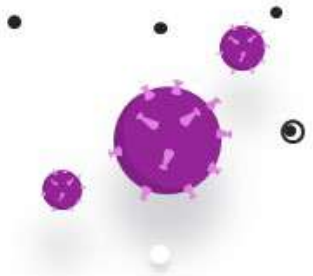
Classify and Examples of Immunodeficiency

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

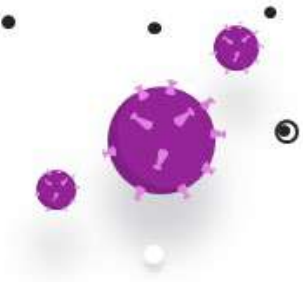
Disorders of specific immunity I. Humoral immunodeficiencies (B cell defects)

II. Cellular immunodeficiencies (T cell defects)

III. Combined immunodeficiencies (B and T cell defects)

Disorders of complement

References



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Thank
You!