

The logo for LIMU (Lampung Islamic University) features a stylized red and white crescent moon and star above the acronym 'LIMU' in blue capital letters.

LIMU

The logo for the Faculty of Pharmacy features a stylized red and blue pill or capsule shape within a circular frame, with the text 'كلية الصيدلة' and 'Faculty of Pharmacy' below it.

كلية الصيدلة
Faculty of Pharmacy

Immunodeficiency Diseases

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Objectives

- Classify and enumerate immune deficiency diseases.
- Differentiate between primary and secondary immuno deficiency diseases.



Human Body
Immune Systems

Thymus

Hormones

Antibodies

White
Blood Cells

Bone
Marrow

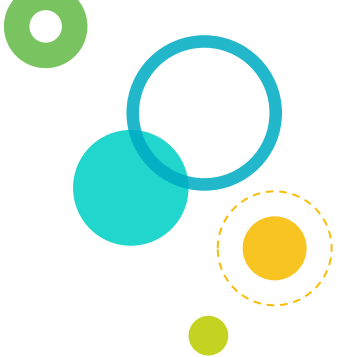
Spleen

Lymphatic
System

Complement
System

A decorative graphic on the left side of the slide consists of several overlapping circles and rings in various colors: pink, orange, teal, light blue, and lime green. Some circles have dashed outlines, and some are solid. The largest element is a lime green ring with a white center, surrounded by other smaller circles and rings.

Introduction

A decorative graphic on the right side of the slide consists of several overlapping circles and rings in various colors: teal, lime green, yellow, and light green. Some circles have dashed outlines, and some are solid. The largest element is a teal ring with a white center, surrounded by other smaller circles and rings.

Immunodeficiency disorders prevent body from fighting infections and diseases. This type of disorder makes it easier for you to catch viruses and bacterial infections.

The background features several decorative elements: a large orange ring with a dashed red inner circle in the top left; a large light blue dashed circle in the top center containing the number '1'; a green circle with a white center in the top right; a yellow circle with a dashed green inner circle in the top right; a pink circle in the middle left; a green circle with a dashed green inner circle in the middle left; a large teal ring in the bottom right; a large green circle in the bottom left; a small cyan circle in the bottom left; and a teal circle with a dashed teal inner circle in the bottom right.

1

Classification of immunodeficiency diseases

Immunodeficiency

Primary

Secondary

Primary

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graph TD; A[Primary] --> B[Disorders of complement]; A --> C[Disorders of phagocytosis]; A --> D[Disorders of specific immunity];
```

**Disorders of
complement**



**Disorders of
phagocytosis**


**Disorders of
specific
immunity**



Disorders of specific immunity

I. Humoral immunodeficiencies (B-cell defects)

- a. X-linked agammaglobulinemia
 - b. Transient hypogammaglobulinemia of infancy.
 - c. Common variable immunodeficiency (late onset hypogammaglobulinemia).
- 
- 



**d. Selective immunoglobulin deficiencies
(IgA, IgM or IgG subclasses).**

e. Immunodeficiencies with hyper-IgM.

f. Transcobalamin II deficiency.





Disorders of specific immunity

II. Cellular immunodeficiencies (T-cell defects)



a. Thymic hypoplasia.



b. Purine nucleoside phosphorylase (PNP) deficiency.





❖ Disorders of specific immunity

III. Combined immunodeficiencies (B- and T-cell defects)

- 
- a. Cellular immunodeficiency with abnormal immunoglobulin synthesis (Nezelof syndrome).
 - b. Ataxia telangiectasia.
 - c. Wiskott-Aldrich syndrome.
- 



d. Immunodeficiency with thymoma

**e. Immunodeficiency with short-limbed
dwarfism**

**f. Episodic lymphopenia with
lymphocytotoxin**

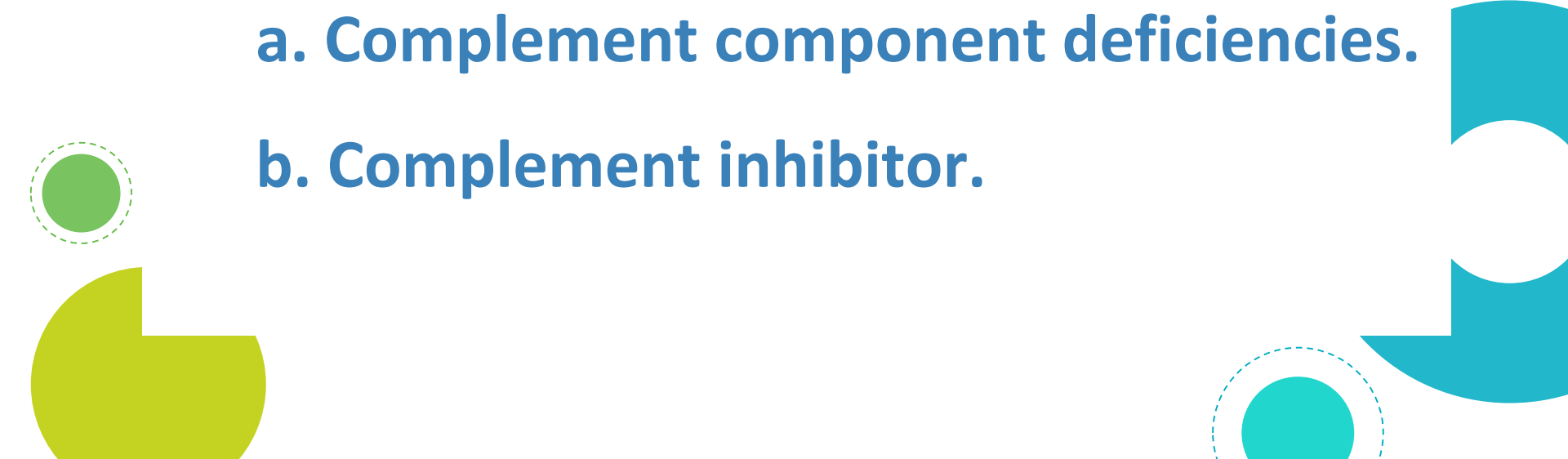


g. Severe combined immunodeficiency






❖ Disorders of complement

- a. Complement component deficiencies.
 - b. Complement inhibitor.
- 



Disorders of phagocytosis

- a. Chronic granulomatous disease.
 - b. Myeloperoxidase deficiency.
 - c. Chediak-Higashi syndrome.
 - d. Leukocyte G6PD deficiency.
 - e. Job's syndrome.
- 





f. Tuftsin deficiency.

g. Lazy leukocyte syndrome.

h. Hyper-IgE syndrome.

i. Actin-binding protein deficiency.



The background features a variety of colorful circles and dashed lines in shades of orange, yellow, green, and teal. Some circles are solid, while others are dashed outlines. A large teal circle with a white center is prominent on the right side. A light blue rectangular box is centered on the page, containing the word "Secondary" in a bold, blue, sans-serif font.

Secondary



❖ AIDS

Secondary immunodeficiency is far more common than primary immunodeficiency.



The background features a variety of colorful circles and dashed lines in shades of orange, yellow, green, blue, and pink. A large, light blue dashed circle is centered behind the number '2'.

2

**Difference between
Primary and Secondary
Immunodeficiency**

Primary immunodeficiency diseases

Adaptive immune function

- T cells or
- B cells
- or both

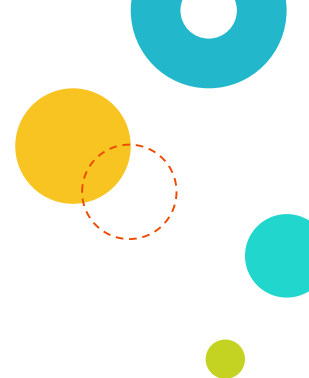
Innate immune function

- Phagocytosis
- Complement



Secondary Immunodeficiency

◎ Secondary or acquired deficiencies of immunological mechanisms can occur secondarily to a number of disease states. And it's more common than primary immunodeficiency



Diseases causes secondary immunodeficiency

AIDS

Metabolic disorders

Malnutrition

Drugs and Chemicals

Malignancy

Infections

Summary

Primary Immunodeficiency	Secondary Immunodeficiency
Most are genetically determined	Arise as complication of cancer and other diseases
Less common	More common

Thanks!



Any questions?