

# Clinical immunology

[Science](#), [Biology](#)



CLINICAL IMMUNOLOGY CLINICAL IMMUNOLOGY INTRODUCTION Immunology is defined as the study of the power by which an individual's body can fight foreign insults in the form of bacteria, viruses, fungi or any other foreign body that would affect the body's natural and normal physiology.

Immunology is a sum of defensive forces which include innate and acquired immunity. Innate immunity is built in whereas acquired immunity is adaptive immunity. For our ease we divide the immunology into two further subtypes which are classical and clinical immunology. Classical immunology deals with the study of how a pathogen affects a body system and in turn how the body's defensive mechanism, its immunity works. On the other hand clinical immunology is the branch which is more important in applied medicine because it deals with those diseases which come into being due to malfunctioning of the immune system. Malfunctioning can be due to dysfunctional immune system or due to any abnormal malignant growth in the cells of immune system. The value of immunological mechanism in pathogenesis and transmission of disease is reflected in the context of prophylactic immunization or the therapeutic manipulation of immune response. These intellectual and practical considerations have created a pathway to establishment of new discipline called clinical immunology (Denman, 1981 pg. 277).

#### DISEASES OF THE IMMUNE SYSTEM

The diseases which cause malfunctioning of the immune system fall into two subtypes which are the autoimmune diseases and the immunodeficiency diseases. Autoimmune diseases are the ones in which our defensive immune system starts attacking its own body. Best known examples of autoimmune

diseases are myasthenia gravis, Hashimoto's thyroiditis and rheumatoid arthritis. Immunodeficiency diseases occur when the system cannot give proper response after foreign insult. Chronic granulomatous diseases are common immunodeficiency diseases. The most common and lethal immunodeficiency disorder is AIDS. Human immunodeficiency virus affects the body of the affected individual and starts competing with the normal cells of the body (Stern, 1981 pg. 206). Another modern intervention the field of clinical immunology is dealing with is transplant rejection. Clinical immunologists work day in and day out to prevent transplant rejections which may occur if the host's body rejects the tissue that is being transplanted (Murphy, Porett and Turka, 2011 pg. 39).

#### SUMMARY

Our immune system is our very own army. Its two arms, acquired and innate provide us with protection against internal and external insults. These insults can be lethal. With the evolution of time and progress in research studies new diseases which affect the immune system have come forward. To study these diseases a branch of immunology called clinical immunology has surfaced which emphasizes on the the diseases causing agent and the reaction of the body's immune system. Transplants and transplant rejections also fall into the category of clinical immunology. Clinical immunology has helped clinicians greatly, due to which they now understand specific diseases more than they did before. Hence this field is an evolving subject and new developments arise in it regularly. Developments and researchs are continuously being held in this field. Clinical immunology is like a ray of hope for understanding diseases on a better way.

## Bibliography

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