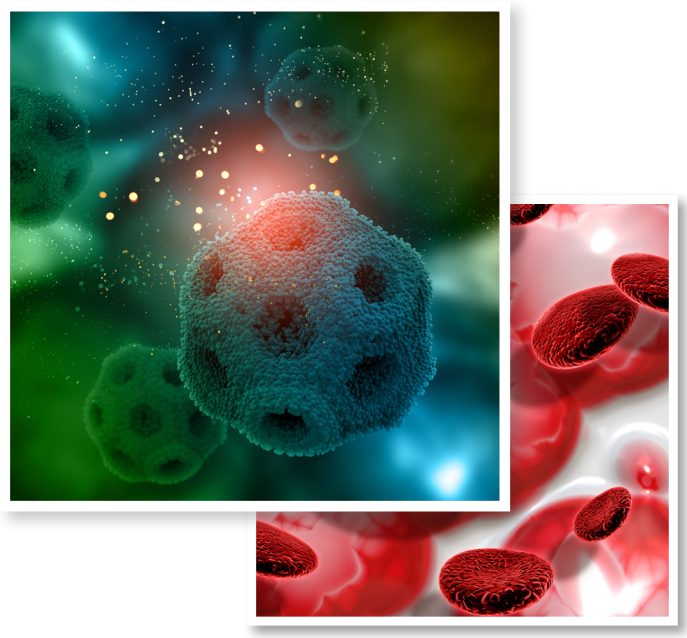
Dunwoody Labs

Dunwoody Labs is an innovator of testing solutions that assist in the diagnosis and management of conditions.

THE COMPLEMENT SYSTEM:
Inflammation and Related Conditions

The complement system is part of our innate immune system, it is activated by antigens and activation can occur in the absence of antibodies. The complement system consists of multiple proteins that when activated assist antibodies and phagocytic cells with their attack against pathogens in the body.

Complement proteins promote inflammation, dysregulation of the complement system has been involved in the pathogenesis and manifestations of many conditions in the body. Dunwoody Labs Dietary Antigen Test measures C3d, a complement protein, and it's activation level in response to commonly eaten and reactive foods.



Complement Associated Conditions

Lupus	**Crohn's Disease**	**Rheumatoid**	**Ulcerative Colitis**
Psoriasis	**Cystic Fibrosis**	**Epilepsy**	**Gout**
Scleroderma	**Thyroiditis**	**Reiter Syndrome**	**Dermatomyositis**

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Complement Determinations In Human Disease

Abstract

OBJECTIVE: To define techniques used for complement measurements and examine the clinical relevance of alterations of complement determinations in disease.

DATA SOURCES: Data have been assembled from the authors' research, original articles, and reviews, as well as chapters and complete books on complement.

STUDY SELECTION: Studies were chosen for inclusion by the opinions of the authors, relevant complement reviews, publications, and books.

RESULTS: Complement has been shown to possess approximately 31 proteins, some of which are enzymes (C1r, C1s, C2, factor B, factor D), some cofactors, some inhibitors or inactivators, and others composed of membrane-integrated proteins. All of the complement proteins have been purified, and many of the respective genes have been identified. The complement cascade is a dual-edged sword, causing protection against bacterial and viral invasion by promoting phagocytosis and inflammation. Pathologically, complement can cause substantial damage to blood vessels (vasculitis), kidney basement membrane and attached endothelial and epithelial cells (nephritis), joint synovium (arthritis), and erythrocytes (hemolysis) if it is not adequately controlled.

CONCLUSIONS: Definitive evidence is available that complement-mediated tissue destruction occurs after immune complex injury in the kidney and lung and may be important in lupus erythematosus and adult respiratory distress syndrome. Future studies on complement receptor structure and function may provide clues to treat effectively lupus, hemolytic anemias, and nephritis. In addition, gene therapy and antibody therapy need further refinement to treat immunodeficiency diseases.