

What is a Clinical Immunologist / Allergy Specialist?

The immune system is a complex network of cells and proteins that defends the body against infection. Immunologists and Allergy Specialists identify and treat the diseases that result from abnormalities of the immune system.

Underactivity of the immune system, also called **immunodeficiency**, can be inherited, acquired as a result of medical treatment or caused by another disease. Immunodeficiency predisposes people to infection.

Overactivity of the immune system can take many forms, including **allergic diseases** - where the immune system makes an excessive response to things in the environment (such as pollen or dust mite) and; **autoimmune diseases** - where the immune system mounts a response against normal components of the body.

Research into the immune system has been active during the last 40 years and Australia has a strong track record in this area. This makes Immunology a dynamic and constantly changing field of medicine. Clinical Immunologists and Allergy Specialists translate this knowledge into clinical practice, by assessing and treating a range of common and rare diseases that involve the immune system, including:

- **Allergic diseases** such as food, drug or stinging insect allergy, anaphylaxis (life-threatening allergy), hay fever (allergic rhinitis), sinus disease, asthma, hives (urticaria), dermatitis and eczema.
- **“Auto” immune diseases** – where the immune system attacks parts of the body. These can be confined to one part of the body (such as multiple sclerosis, autoimmune thyroid disease, type 1 diabetes) or may affect many different parts of the body (such as systemic lupus erythematosus, rheumatoid arthritis, systemic vasculitis).
- **“Immunodeficiencies”** - conditions in which the immune system does not function correctly, leading to increased infections. These may be inherited (such as X-linked Agammaglobulinaemia, X-linked Severe Combined Immunodeficiency, Complement deficiencies, Phagocyte cell deficiencies) or acquired later in life (such as HIV/AIDS).
- **Immunosuppression** – treatment of people who are immuno-suppressed (such as recipients of organ transplants or cancer chemotherapy).

Clinical Immunologists and Allergy Specialists undergo similar training as other medical specialists. They receive general training in internal medicine, followed by several years of additional training in immunology and allergy. They work in hospitals, private community practice, diagnostic immunology laboratories and research centres. Some undertake one area of work only, such as patient consultations or diagnostic pathology. Others combine these roles together with research and teaching. As with other medical specialists, a referral from one’s general practitioner is required for consultation.

When should patients be referred to a Clinical Immunologist / Allergy Specialist?

- For further investigations, confirmation and management of clinical disorders of the immune system, including allergic diseases, autoimmune diseases, immunodeficiencies and immunosuppression.
- For further education regarding disorders of the immune system for patient and/or family.
- In cases of severe, life-threatening allergy (anaphylaxis).
- When food or occupational allergy is suspected.
- If immunotherapy for treatment of allergic diseases is contemplated.
- In asthma, when there is evidence of continuing poor control, despite regular use of asthma medication.
- For investigation of unexplained inflammation (fevers of unknown origin, unexplained fevers, weight loss).
- Investigation of recurrent or unusual (opportunistic) infections.