

PRECISION ASTHMA

Your asthma is unique. Your treatment should be too.

TREAT THE BIOLOGY — NOT JUST THE SYMPTOMS

Today, specialist assessment can reveal treatable inflammatory patterns in asthma - opening the door to more personalised care.



**ONE DIAGNOSIS.
DIFFERENT IMMUNE PATHWAYS.**

NOT ALL ASTHMA IS THE SAME

Two people with the same symptoms may have different drivers of airway inflammation - and respond differently to treatment.



ALLERGY

IgE-driven sensitivity to relevant allergens



TYPE 2

Eosinophils and inflammatory signals



OTHER TRAITS

Irritants, comorbidity and mixed mechanisms

DIFFERENT PATTERNS • A MORE PERSONAL APPROACH



ALLERGIC ASTHMA

IgE & sensitisation

Immune responses to clinically relevant allergens may drive inflammation. Rhinitis, eczema or other allergies may coexist.



EOSINOPHILIC / TYPE 2

Cells & signals

Eosinophils and pathways involving IL-5, IL-4 and IL-13 can drive repeated attacks and airway inflammation.



MIXED OR OTHER TRAITS

Whole-person review

Asthma phenotypes overlap. Reflux, rhinitis, smoke exposure, sleep, obesity and breathing patterns can contribute.

YOUR ASTHMA FINGERPRINT • WHAT SPECIALISTS MEASURE



01

SPIROMETRY

Airflow limitation and bronchodilator response; normal tests do not always exclude asthma.



02

EOSINOPHILS

A blood-cell marker that may indicate Type 2 inflammation; levels vary over time.



03

FeNO

A breath measure of Type 2 airway inflammation; affected by steroid treatment.



04

ALLERGY TESTS

IgE and relevant allergen tests help distinguish an allergic pattern.

No single marker decides treatment. Attack history, steroid exposure, other conditions and repeated results all matter.

WHEN TO ASK FOR A MORE DEFINITIVE REVIEW

IS THIS YOU?

- Attacks or repeat oral-steroid courses
- Night waking or disrupted study, sport or work
- Ongoing symptoms despite prescribed preventers
- Uncertainty about diagnosis or next steps



MOVING INTO ADULT CARE?

A planned transition helps young people take ownership of medicines, action plans, exercise goals and follow-up - without losing continuity of care.

BEYOND THE INHALER

Biologics, genomic science and protected choices.

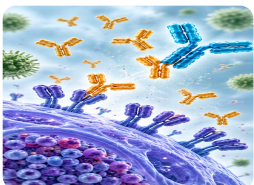
FIVE MEDICINES. FIVE DISTINCT INFLAMMATORY TARGETS.

Biologics are specialist add-on medicines for selected patients with severe asthma. Each interrupts a different immune signal; none is an emergency reliever or a cure.

HOW EACH BIOLOGIC WORKS • DIFFERENT MOLECULAR TARGETS

IgE

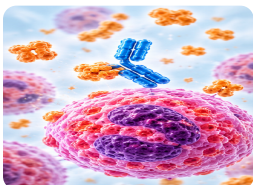
OMALIZUMAB



Captures free IgE before it can activate allergic pathways.

IL-5

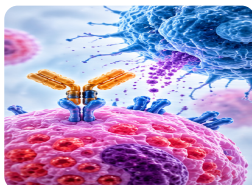
MEPOLIZUMAB



Neutralises IL-5, a signal sustaining eosinophils.

IL-5Rα

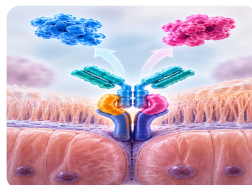
BENRALIZUMAB



Binds eosinophil IL-5 receptors and depletes these cells.

IL-4Rα

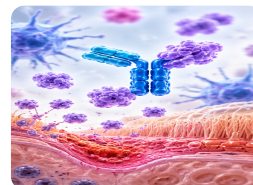
DUPILUMAB



Blocks IL-4/IL-13 signalling involved in Type 2 inflammation.

TSLP

TEZEPELUMAB



Intercepts an early airway epithelial alarm signal.

GENOMICS • UNDERSTANDING WHY ASTHMA DIFFERS



DNA + IMMUNITY + ENVIRONMENT

INHERITED BIOLOGY

Asthma is polygenic: many DNA variants can influence susceptibility and immune signalling. Genes interact with infections, allergens and environmental exposures.

MULTI-OMICS: NEW INSIGHT

Research combining genomics, gene-expression profiles and proteins aims to reveal more precise molecular endotypes, future drug targets and predictors of response.

WHAT GUIDES TREATMENT TODAY

Current biologic selection uses symptoms, attacks, lung function and markers such as eosinophils, FeNO and IgE. Routine genome sequencing is not required.

AUSTRALIA NOW PROTECTS GENETIC TEST INFORMATION

**8 OCT
2026**

Life insurers cannot request or use protected genetic-testing information when deciding whether to offer life insurance or its terms. This includes life, TPD, trauma and income-protection cover for new or varied policies.

You need not disclose protected results. Non-genetic tests, diagnoses, symptoms and family history can still be considered. Health insurance has different rules; patients may volunteer favourable results with written consent.

Source: Genomics Australia; Treasury Laws Amendment (Genetic Testing Protections in Life Insurance and Other Measures) Act 2026.

BEYOND SYMPTOM CONTROL: ASK ABOUT PRECISION CARE

For adolescents moving into adult care and people with persistent attacks: request a specialist review of diagnosis, biomarkers, treatment options and progress.

Safety: Biologics do not replace your reliever or action plan. Do not stop preventers or abruptly reduce oral steroids. Severe breathing difficulty: call 000.