

Allergy Testing: Information for Patients



What is allergy?

An allergy occurs when a person's immune system reacts to substances in the environment that are usually harmless to most people. These substances are known as **allergens (antigens)** and are found in sources such as house dust mites, pets, pollens, moulds, insects and insect venoms, foods, food additives, and some medicines. The body has several types of immune responses to allergens. The most common immune response is when the body reacts by producing antibodies called immunoglobulin E (IgE). When exposed to an allergen, the IgE antibodies recognize and bind to the allergens to eliminate them from the body. In the process, chemicals such as histamine are released, leading to **allergic inflammation** and causing typical symptoms such as redness, swelling, and itching.

Allergic conditions show an increasing incidence worldwide and in South Africa. Allergy symptoms may range from an itching nose to severe life-threatening anaphylaxis.

Common allergy symptoms include:

- Nose - blocked, runny nose, itching
- Eyes - itching, red eyes
- Lungs - asthma, cough, wheezing
- Abdominal - cramps, vomiting, diarrhoea
- Skin - eczema and sometimes urticaria
- Anaphylactic shock

Why test for allergy?

A good clinical history of exposure to an allergen should always guide allergy tests. Allergy tests should only serve to **confirm the suspected source of the allergen** causing the symptoms. It is not always necessary to test for allergies. In some cases, the cause of the allergy can be identified by a good clinical history and demonstration of symptoms upon exposure alone. By identifying the source of the allergen (e.g., house dust mites), steps can be taken to **reduce exposure to the allergen** and/or treatment can be initiated for the specific allergy. Managing allergies or allergic symptoms can significantly improve your quality of life and reduce further health complications.

What are the most common allergens?

- **Inhaled** - pollens, cat and dog epidander, house dust mites, cockroaches and mould spores
- **Food (Infants & children)** - egg, milk, peanut, soy, wheat, and fish
- **Food (Adults)** - shellfish, peanut, tree nuts, and fish
- **Other** - insect venom, food additives, and drugs.

Types of allergy tests

There are different types of allergy tests available. The specific test depends on the allergen and the type of allergic reaction.

- A **Skin prick test (SPT)** is a quick, cost-effective method to identify **inhalant (airborne) allergens**. You need to make an appointment with your local laboratory for a SPT need to make an appointment with your local laboratory for a SPT. Your doctor may ask you to stop your antihistamines two to three days before the test.
- **Allergen specific-IgE blood tests (ImmunoCAP®)** can be used to identify most **inhalant, food, insect venom, and some drug allergens**. Antihistamines do not interfere with this test.
- Some allergy blood tests (mainly for **drugs, metals, and food additives**) need special arrangements, and the laboratory should be contacted beforehand.
- **Skin patch testing** are used to identify allergens causing contact dermatitis (delayed immune response allergy).

Beware of allergy tests offered by non-accredited laboratories, as some of these tests are not scientifically validated nor recommended by the Allergy Society of South Africa (ALLSA).

Cost of allergy tests

Allergy tests can be expensive if a good clinical history does not guide the specific allergy test request. Therefore, you should consult your clinician to limit unnecessary allergy investigations.

Interpretation of allergy tests

Allergy test results are complicated and should only be interpreted in conjunction with the clinical history or presentation. Positive allergy tests only implicate sensitization to an allergen and not necessarily a clinical allergy. After testing, a follow-up consultation with the referring clinician is recommended to interpret the results, and to discuss further management.

More information regarding allergies and allergen avoidance is available from the South African Allergy Society website at www.allsa.org or from the Allergy Foundation South Africa at www.allergyfoundation.co.za.

Inligting vir Pasiënte oor Allergietoetsing



Wat is allergie?

Allergie vind plaas wanneer 'n persoon se immuunstelsel reageer teenoor omgewingstowwe wat gewoonlik skadeloos is vir die meeste individue. Hierdie stowwe staan bekend as **allergene** (antigene) en kom voor in onder andere bronne soos huisstofmiete, troeteldiere, stuifmeel, swamme, insekte en insekgif, voedsel, voedselaanvullings en sommige geneesmiddels. Die liggaam toon verskeie soorte immuunreaksies op allergene. In die mees algemene reaksie produseer die immuunstelsel teenliggame bekend as immunoglobulien E (IgE). Met blootstelling aan die allergeen herken en bind die IgE-teenliggame die allergeen in 'n poging om hulle uit die liggaam te verwyder. Chemiese stowwe soos histamien word gedurende die proses vrygestel wat verantwoordelik is vir **allergiese inflammasie** wat presenteer met tipiese simptome soos rootheid, swelling en jeuk.

Allergiese toestande toon 'n toename regoor die wêreld, sowel as in Suid-Afrika. Simptome van allergie kan wissel van hooikoors tot lewensbedreigende anafilaktiese reaksies.

Algemene simptome van allergie sluit in:

- Neus - toe neus, loopneus, jeuk
- Oë - jeukerige, rooi oë
- Longe - asma, hoes, aamborstigheid
- Abdominaal - krampe, braking en diarree
- Vel - ekseem en soms galbulte
- Anafilaktiese skok

Hoekom toets vir allergie?

Toetse vir allergie moet altyd met 'n goeie kliniese geskiedenis van blootstelling aan 'n allergeen gepaard gaan. Allergietoetse dien slegs om die bron van die allergeen wat vermoedelik die simptome veroorsaak, te bevestig. Dit is nie altyd nodig om vir allergie te toets nie. In sommige gevalle kan die bron van die allergie deur 'n goeie kliniese geskiedenis en uitlokking van simptome ná blootstelling aan die allergeen bevestig word. Deur identifikasie van die bron van die allergeen (b.v. huisstofmiete), kan stappe geneem word om blootstelling aan die allergeen te vermy en/of behandeling vir die spesifieke allergie kan begin word. Die hantering van allergieë of allergie simptome kan u lewensgehalte betekenisvol verbeter, en ook toekomstige gesondheids-onkoste komplikasies verminder.

Wat is die algemeenste allergene?

- Lugverspreide allergene - stuifmeel, skilfers van katte en honde, huisstofmiete, kakkerlakstof en swamspore
- Babas en kinders - eiers, melk, grondbone, soja, graan en vis
- Volwassenes - skulpvis, vis, grondbone en boomneute
- Ander - insekgif, voedselaanvullings en middels

Soorte allergietoetse

Verskeie soorte allergietoetse is beskikbaar. Die allergeen en die soort allergiese reaksie sal die spesifieke toetsmetode bepaal.

- **Velpriktoetse (VPT)** is 'n vinnige, koste-effektiewe manier om ingeasemde allergene te identifiseer. U moet 'n afspraak met u plaaslike laboratorium vir 'n VPT maak. U dokter kan u vra om die gebruik van antihistamiene vir twee of drie dae voor die toets te staak.
- **Allergeen-spesifieke-IgE bloettoetse (ImmunoCAP®)** word gebruik om die meeste ingeasemde-, voedsel-, insekgif- en sommige geneesmiddel- allergene te identifiseer. Antihistamiene belemmer nie hierdie toets nie.
- **Sekere bloettoetse vir allergieë** (hoofsaaklik vir **geneesmiddels, metale en voedselaanvullings**) benodig spesiale reëlins en die laboratorium moet vooraf gekontak word.
- **Velplaktoetse** kan gedoen word vir pasiënte met moontlike kontakdermatitis (vertraagde immuunrespons allergie).

Pasop vir allergietoetse wat deur nie-geakkrediteerde laboratoriums aangebied word. Sommige van hierdie toetse is nie wetenskaplik bekragtig nie, en word nie deur die Allergievereniging van Suid-Afrika (ALLSA) aanbeveel nie.

Koste van allergietoetse

Allergietoetse kan duur wees indien die toetsversoek nie gelei word deur 'n goeie kliniese geskiedenis nie. Raadpleging met u dokter word dus aanbeveel om onnodige allergie-ondersoeke te beperk.

Interpretasie van allergietoetse

Die diagnose van allergie word nie op 'n laboratorium ondersoek alleen gemaak nie. Resultate van allergietoetse is ingewikkeld en moet slegs saam met 'n goeie kliniese geskiedenis geïnterpreteer word. Byvoorbeeld: 'n Persoon met verhoogde IgE-teenliggaam teenoor 'n stof word slegs as allergies gediagnoseer indien simptome na blootstelling aan die stof ondervind word. Na toetsing word 'n opvolgkonsultasie met u dokter vir interpretasie van die resultate aanbeveel, sowel as om verdere hantering te bespreek.

Meer inligting aangaande allergieë en allergeen vermyding kan van die webtuiste van die Suid Afrikaanse Allergievereniging by www.allergysa.org verkry word of op die webtuiste www.allergyfoundation.co.za.

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