

Pollen Allergy Test TEST RESULT



Your test result

A pollen allergy can be detected by measuring the level of IgE antibodies in the blood. During an allergic response to a specific pollen, your body releases IgE antibodies in an attempt to block the allergen. This can lead to a range of different symptoms such as skin rash, breathing difficulties and/or a swollen throat.

IgE antibodies were detected in your sample.



Analysis

A pollen allergy occurs when the immune system responds to substances that are actually harmless, in this instance pollen from a plant. This process involves two stages. The first stage is **sensitisation**, when the allergen initially encounters the immune system. During this initial stage, the immune system produces specific IgE antibodies in preparation for the next exposure to the allergen. When there is **repeat exposure** to the antigen, i.e. in the second stage in this process, the immune system recognises the allergen as harmful and activates specialised immune cells. This response results in the release of histamine, among other factors, which causes the typical allergic symptoms such as sneezing, coughing and skin rashes. Pollen allergy, commonly referred to as hay fever, is a type 1 hypersensitivity, or immediate hypersensitivity reaction. This means that symptoms occur immediately after re-exposure to the allergen. Symptoms can persist as long as six hours after exposure.

Your test results

As requested, we have tested your blood for IgE antibodies specific to 16 different allergens, each of which is the pollen of a particular plant. For illustration purposes, only the plant itself is listed as the allergen, but the allergen refers to the pollen of the plant.

Grasses and herbs

Parameter	Reaction
Bahia Grass	NO REACTION
Bermuda Grass	NO REACTION
Cultivated Rye	NO REACTION
Grass Mix	NO REACTION
Mugwort	000000
Timothy Grass	NO REACTION
Wall pellitory	•••••

Plants

Parameter	Reaction
Common Ragweed	••••
Cypress	•••••
Ficus benjamina	•••••
Olive	NO REACTION
Poplar	NO REACTION
Ribwort plantain	000000

Trees

Parameter	Reaction
Alder	NO REACTION
Birch	NO REACTION
Hazelnut	NO REACTION

In case of the weeping fig it is not the pollen that causes the allergy, but the sap.

Your individual results report

How to interpret you IgE results

Your IgE concentrations have been classified into three response levels, which we would like to explain in more detail over the next few pages. We distinguish these according to whether immune responses are absent (0 circles), weak (1–2 circles) or strong (3–6 circles).

How do you detect sensitisation?

We detect E class immunoglobulins (abbreviated to IgE) in your blood. These are antibodies that consist of proteins and can be detected in serum. They are secreted by the body as a defensive response against foreign substances that the body considers dangerous.

If we have identified IgEs in your blood, this indicates that you have been sensitised to an allergen.

"Sensitisation" means that, when your body was initially exposed to the allergen, it triggered an immune response. This means that your body has an increased tendency to respond in an allergic manner. Sensitisation does not necessarily cause symptoms. However, if you develop symptoms immediately after exposure (or up to two hours afterwards), you may be experiencing an IgEmediated allergy.

What do these test results mean in my case?

"No response"

We were unable to detect any sensitisation to specific allergens in your blood. A "classic" type 1 hypersensitivity reaction (an immediate response after exposure to the allergen) is therefore unlikely.

Weak response (1 to 2 circles)

"We have identified a weak to low sensitisation to a specific allergen. However, because each person reacts differently, an allergy may also be present in cases of low sensitisation or inconspicuous test results. It is therefore essential that you pay attention to symptoms that occur immediately after exposure to the allergen, or two hours afterwards at the latest:

*Asthma or bronchitis (coughing, breathing difficulties) *Sniffles or frequent nose inflammations *Frequent sneezing *Itchy and stinging eyes, possibly conjunctivitis *Rashes (e.g. eczema, hives) *Swelling of the eyes or in the mouth and/or throat *Gastrointestinal symptoms/indigestion/flatulence/propensity to diarrhoea *Other responses which may point to hypersensitivity



· Or If you experience one or more of these symptoms, you should seek medical advice and consult an allergy specialist.

Strong response (3 to 6 circles)

We have detected a strong sensitisation to a specific allergen in your blood. This in itself does not mean that you have an allergy, but that your body shows an increased readiness to mount an allergic immune response. Just as with mild to moderate responses, it is a good idea to pay attention to any symptoms that occur immediately after exposure to the allergen.

If you develop an IgE response to a specific allergen and also suffer from severe symptoms, please consult a therapist who is experienced in diagnosing allergies and who can help you to further treat the allergy.

Did you obtain a positive test result without having any symptoms?

If you have a positive IgE test result but do not experience any symptoms, this may be an indication that your body has built up some form of self-protection (immune tolerance). It is also possible that the measured response is a cross-reaction. Some allergens have very similar structures. The immune system may not be able to differentiate between these two different allergens, which means that an allergic response may occur when you are exposed to either of the two substances.

General information on allergies

An allergy is caused by a hypersensitive reaction of the body to foreign substances, called allergens. In general, allergens do not harm the body. In the case of an allergy sufferer, however, the immune system produces antibodies (IgE antibodies) against these substances and thereby attempts to eliminate the substances that are presumed to be harmful.

These antibodies are formed after the initial exposure to the allergen and attach themselves to specific cells. This is referred to as ""sensitisation"". Upon re-exposure to the allergen, the cells that are primed with IgEs then release specific substances that trigger allergic symptoms such as coughing or rashes. Allergies affect some 30 million individuals in Germany alone. There are a variety of sources of allergens. The most common allergens include pollen, dust mites, pets and farm animals, but particular foods, medications and contact allergens such as latex can also trigger an allergic response.

Pollen count and symptoms of the parameters tested

The male genetic material of plants is spread by pollen. Pollen can be spread by wind, but also by insects, in some cases over a distance of several hundred kilometres.



Flowering period



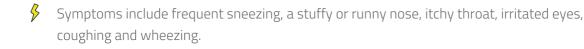
Symptoms

Grasses and herbs

Bahiagrass (1)



June to August



Bermuda grass (2)



May to August

Symptoms include frequent sneezing, a stuffy or runny nose, itchy throat, irritated eyes, coughing and wheezing.

Rye grass (3)



May to June

Symptoms include itchy and stinging eyes and nose, irritable sneezing, difficulty breathing through the nose, increased lachrymal flow rate and runny nose.

Timothy grass (4)



Symptoms include frequent sneezing, a stuffy or runny nose, itchy throat, irritated eyes, coughing and wheezing.

Mugwort (5)



Symptoms include a runny and stuffy nose, sneezing, eye irritations accompanied by stinging, itching, and moistening. Also coughing, shortness of breath, chest symptoms, and night-time discomfort.

Parietaria (6)



Symptoms include watery, irritable, itchy eyes, ear infections, an itchy, runny nose, sneezing fits, allergic coughing, rashes and itchy skin.



Plants

Ragweed (1)



August and September

Symptoms include an itchy, stuffy nose, red eyes, allergic asthma, hives and contact dermatitis.

Weeping fig (2)

In this case it is the sap that is the allergen, rather than the pollen. Therefore, with this allergen, there is no flowering season. Symptoms of a weeping fig allergy include rhinitis, a blocked nose, itchy eyes and coughing.

Olive (3)

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Symptoms include rhinitis and swelling of the nasal mucous membrane, hives and reddening of the skin. Other symptoms include an itchy throat and pharynx, but also nausea, vomiting and diarrhoea. Anaphylactic shock* may occur in severe cases, and this can be life-threatening.

An Anaphylactic shock is a rare but life-threatening allergic immune response. Its onset is sudden and it may involve the skin, mucous membrane, respiratory tract, digestive system, nervous system and cardiovascular system. Early warning signs may include an itchy or burning sensation on the palms of the hands, the soles of the feet, or in the genital region, a metallic taste on the tongue and difficulty swallowing, as well as anxiety or disorientation which may progress to anaphylactic shock.

Poplar (3)



Symptoms include rhinitis, a runny nose, itchy or burning eyes, swelling of the nasal mucous membrane, irritated airways, reddening of the skin and hives.

Ribwort (4)



Symptoms include a runny nose, rhinitis, sneezing, itchy nasal mucous membranes, irritation of the respiratory tract, itchy and stinging eyes, reddening of the skin and blisters.

Cypress (6)



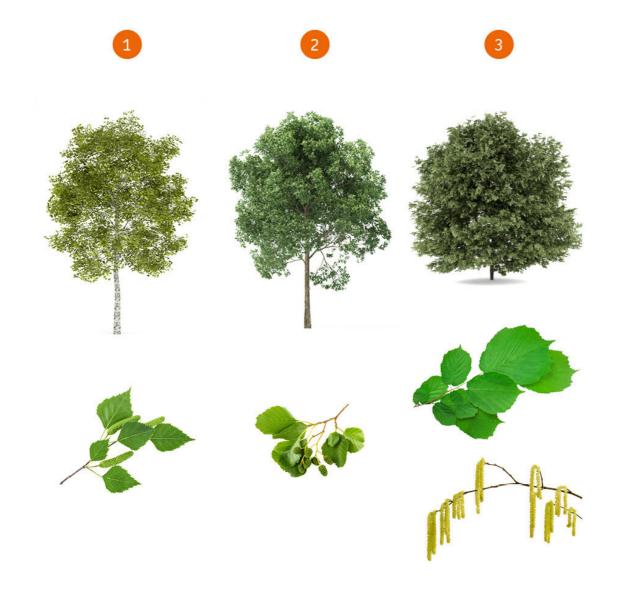
Symptoms include rhinitis, pharyngitis, coughing and sometimes asthma. A cypress allergy can also occasionally cause conjunctivitis.



Trees

Birch (1), alder (2) and hazelnut (3)

January to March Symptoms include a runny, itchy nose or congested nasal passages, frequent sneezing, and watery, itchy and irritated eyes. Often those affected also feel exhausted or complain of headaches, tiredness and/or a loss of appetite. Skin reactions may also occur.



Recommendations for handling an allergy

If your test result indicates a sensitisation, there are several options that can help you deal with a suspected allergy. The most effective is to avoid the allergen altogether. This is of course difficult with pollen, as it is usually airborne over a long period of time and can be widely dispersed. But you can protect yourself even from pollen to some extent. You can, for example, install pollen screens on your windows or even wear protective masks that allow you to go outside during the flowering season. During the pollen season it is advisable to wipe down surfaces with a damp cloth more often, change your clothes when you enter the house, and wash your hair before going to bed. In addition, medicines such as antihistamines can also make some improvement to your quality of life, although they cannot combat the allergy itself.¹ A study has recently shown that external application of black cumin seed oil can be helpful in cases of allergic rhinitis, i.e. inflammation of the nasal mucous membrane.² There are also preliminary studies examining whether an increased intake of honey is associated with an improvement in allergic rhinitis symptoms. Animal models of allergic rhinitis in particular have shown that an increased intake of honey can improve symptoms. Further studies in humans are required to determine the basis for these findings and the optimal dose of honey.³

·Of course, these are just a few examples and tips on how to deal with your allergy. If you have any further questions, please contact our nutritionists. Before you start to treat yourself either with homemade remedies such as black cumin seed oil or with antihistamines, please seek the advice of a doctor experienced in diagnosing allergies.

Cross-reactions

Allergens have quite specific chemical structures. If two allergens from different sources have very similar structures, it may give rise to cross-reactions, also referred to as cross-allergies. The immune system confuses a harmless allergen with a harmful allergen on account of its closely related chemical structure. This leads to an allergic immune response.

A cross-reaction between inhaled allergens such as pollen and food is quite common. These are also called pollen-associated food allergies. We have listed the different foods that can cross-react with specific allergens below.

Birch Pollen

Hazelnuts, almonds, apples, pears, cherries, peaches, nectarines, apricots, plums, strawberries, kiwifruit, celery, carrots, raw potatoes, soya beans, peanuts, mung beans, coconuts, walnuts, bananas, pineapples, papayas, mangoes, oranges, avocados, tomatoes, peppers, parsley, basil, onions, garlic, hops

Mugwort pollen



celery, carrots, potatoes, spices, tomatoes, peppers, cucumbers, spinach, leek, cabbage, cress, mustard, soya, peanuts, kiwifruit, mangoes, apples"

Grass Pollen



celery, carrots, potatoes, spices, tomatoes, peppers, cucumbers, spinach, leeks, cabbage, cress, mustard, soya, peanuts, kiwifruit, mangoes, apples

Ragweed pollen



Water melons and other melons, bananas, courgettes, cucumbers

Some tips for allergy sufferers

If you suffer from an allergy and feel a tingling sensation on the roof of your mouth, a burning and itchy mouth or lips, or even feel that your face is becoming swollen when you eat certain foods, you should avoid these foods at all costs. Instead of raw vegetables, eat mainly cooked fruit and vegetables, as allergenic proteins can be denatured by heat. Peeling fruit and vegetables may also help. Avoid stress, alcohol and excessive use of medication, as these factors may exacerbate allergic symptoms

How to prevent an allergy

A healthy gut flora and an intact intestinal barrier can be important factors in the prevention of allergies. The healthier the intestine, the fewer foreign substances can slip through the intestinal barrier and challenge the immune system. The following tips are intended to help you keep your intestine heathy. Eat a **varied diet: rich in **fresh fruit and vegetables, wholemeal products* and fibre. Eat as few **processed foods* as possible, or foods that are high in fat or sugar. Compensate for mental stress. *Exercise* sufficiently, but avoid excessive physical stress, for instance by exercising despite physical problems. Attempt to *limit the use of **antibiotics* and take probiotics during antibiotic treatments. **Avoid smoking* cigarettes, both passively and actively, as much as possible. Go out into nature, breathe **fresh air* and, if possible, avoid contact with environmental toxins and toxins contained in exhaust fumes.

The following recommendations are intended for mothers and parents. Particularly where children are concerned, you can have a greater influence on whether an allergy develops or not. There are many different factors that are important here, which we have summarised in the list below.⁴

Pregnancy recommendations *If at all possible breastfeed for at least the first four months. *Do not adopt any particular restrictive diets during pregnancy (unless there are disease-related reasons for doing so, such as coeliac disease). *Regularly eat fatty, cold-water fish such as herring or mackerel while you are pregnant or breastfeeding. Omega-3 fatty acids may reduce the risk of your baby developing allergies. Further research is still required to substantiate this.

Lifestyle recommendations *If one of the parents suffers from an allergy and you cannot breastfeed, you should feed your newborn a special hydrolysed formula. It consists of ingredients that have low allergenic potential. *Introduce fish from the age of 5 months. *Prevent overweight/obesity in children. *If there is a family history of allergies and your child is therefore at increased risk of developing an allergy, you should not keep a cat. In contrast, there is no link between keeping dogs and an increased risk of allergies. Don't use products specifically designed for allergy sufferers, such as anti-mite protectors for mattresses, if you don't suffer from this particular type of allergy. *Avoid

any indoor conditions that promote mould formation. *Avoid any active or passive exposure to tobacco smoke from pregnancy onwards. *Reduce exposure to indoor pollutants, e.g. from paint. *Minimise exposure to vehicle emissions.



Do you have any questions?

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Frequently Asked Questions

What causes an allergy? _______^

An allergy is caused by a hypersensitive reaction of the body to foreign substances, called allergens. In the case of an allergy sufferer, the immune system produces antibodies (IgE antibodies) against these substances and thereby attempts to eliminate the substances that are presumed to be harmful. These antibodies are formed after the initial exposure to the allergen and attach themselves to specific cells. Upon re-exposure to the allergen, the cells that are primed with IgEs then release specific substances that trigger allergic symptoms such as coughing or rashes.

What is an anaphylactic shock? ________^

Anaphylactic shock is a rare but life-threatening allergic immune response. Its onset is sudden and it may involve the skin, mucous membrane, respiratory tract, digestive system, nervous system and cardiovascular system. Early warning signs may include an itchy or burning sensation on the palms of the hands or soles of the feet, or in the genital region, a metallic taste on the tongue and difficulty swallowing, as well as anxiety or disorientation which may progress to anaphylactic shock.

What is a food allergy? ______^

Allergens have quite specific chemical structures. If two allergens from different sources have very similar structures, it may give rise to cross-reactions, also referred to as cross-allergies. The immune system confuses a harmless allergen with a harmful allergen on account of its closely related chemical structure. This leads to an allergic immune response.

A cross-reaction between inhaled allergens such as pollen and food is quite common. These are also called pollen-associated food allergies. We have listed the different foods that can cross-react with specific allergens below.

Can I prevent an allergy?

The Allergy Prevention Guideline provides the following recommendations to reduce the risk of allergy in newborns, assuming that the parents are aware of any known allergies: *Mother and child should eat a balanced diet and not abstain from particular foods unless justified for specific health reasons. *Mothers should not smoke during pregnancy. *Pregnant women, breastfeeding mothers and children should not be exposed to moulds or increased levels of car emissions. Whether supplementation with Omega-3 fatty acids during pregnancy reduces the risk of developing an allergy remains to be established.^{4, p. 3}



If you have further questions about your test results, please don't hesitate to contact us.

Contact us by email at: help@cerascreen.com

We don't leave you alone with your test results and support you on your way towards a symptom-free future. Your Cerascreen Team

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References

¹ "Wie wird Heuschnupfen behandelt?" Allergie Informationsdienst, Feb. 01, 2019, Zugegriffen: Mai 18, 2020. [Online]. Verfügbar unter:

https://www.allergieinformationsdienst.de/krankheitsbilder/heuschnupfen/therapie.html.

² A. Alsamarai, M. Abdulsatar, und A. Ahmed Alobaidi, "Evaluation of topical black seed oil in the treatment of allergic rhinitis." Anti-Inflammatory & Anti-Allergy Agents in Medicinal Chemistry, 2014, Zugegriffen: Mai 18, 2020. [Online]. Verfügbar unter: https://www.ncbi.nlm.nih.gov/pubmed/23855426.

³ Zamzil Amin Asha'ari, Mohd Zaki Ahmad, Wan Shah Jihan Wan Din, Che Maraina Che Hussin, und Ishlah Leman, "Ingestion of honey improves the symptoms of allergic rhinitis: evidence from a randomized placebo-controlled trial in the East Coast of Peninsular Malaysia". Annals of Saudi Medicine, 2013, Zugegriffen: Mai 18, 2020. [Online]. Verfügbar unter:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6074882/.

⁴ Deutsche Gesellschaft für Allergologie und klinische Immunologie (DGAKI), und Deutsche Gesellschaft für Kinder- und Jugendmedizin (DGKJ), "S3 Leitlinie Allergieprävention", 2014, Zugegriffen: Feb. 25, 2019. [Online]. Verfügbar unter: https://www.awmf.org/uploads/tx_szleitlinien/061-016I_S3_Allergiepr%C3%A4vention_2014-07-abgelaufen.pdf.

⁵ H.-K. Biesalski, P. Grimm, und S. Nowitzki-Grimm, Taschenatlas Ernährung, 7., unveränderte Auflage. Stuttgart New York: Georg Thieme Verlag, 2017.