

Food Allergen Challenges

Frequently Asked Questions

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Q 1: What is a supervised food allergen challenge?

Food allergen challenges are procedures where small and increasing amounts of a food are fed to a patient in a medical clinic. The patient is monitored by a health professional to confirm if the food causes an allergic reaction. These challenges should use standard protocols and be supervised by a clinical immunology/allergy specialist or paediatrician with additional training in allergy. Most challenges take two to three hours to eat the required doses of food, followed by two hours of observation.

Q 2: Why are supervised food allergen challenges performed?

Food allergen challenges are used to confirm:

- If a person has outgrown an existing food allergy.
- Suspected food allergy when the history or allergy tests are unclear.
- If a person with a positive allergy test to a food (that they have never eaten), has a true food allergy.
- If a person allergic to egg and/or milk can tolerate these foods in baked form.

Q 3: Who can perform supervised food allergen challenges?

Food allergen challenges should only be performed in carefully selected patients by a clinical immunology/allergy specialist or paediatrician with additional training in allergy. They must always be performed by trained and experienced medical and nursing staff, in a medical facility with immediate access to emergency treatment for anaphylaxis.

Q 4: What happens if there is no allergic reaction from a food allergen challenge?

If the food allergen challenge is completed without an allergic reaction it is called “negative”, which means that the patient:

- No longer needs to avoid that food.
- Will need to regularly include the food in their diet. Evidence shows that this will help to maintain tolerance of that food.

This can have a very positive impact for patients and their families, as they no longer need to avoid a food that may be part of their usual diet.

Q 5: What happens if there is an allergic reaction from a food allergen challenge?

If an allergic reaction occurs, the food allergen challenge is called “positive” and the actions below are followed:

- The challenge is stopped, and the allergic reaction is treated with medication. The way an allergic reaction is treated in a hospital may vary from the instructions on the ASCIA Action Plan for Anaphylaxis. This is because hospital staff have ready access to blood pressure and oxygen checks, oxygen masks and other equipment. It is important to follow instructions on the ASCIA Action Plan for Anaphylaxis when not in a hospital.

- The patient needs to stay under medical supervision for a few hours after the challenge.
- The patient is diagnosed as allergic to the food and needs to avoid that food.

The severity of the allergic reaction during the challenge does not predict the severity of future allergic reactions. For example, if a patient has a mild allergic reaction during the challenge, a reaction at another time could be more severe and life threatening (anaphylaxis).

If the patient has anaphylaxis in the challenge, they should have adrenaline (epinephrine) injectors prescribed. Anaphylaxis is the most severe type of allergic reaction and should always be treated as a medical emergency. Anaphylaxis requires immediate treatment with adrenaline, which is injected into the outer mid-thigh muscle. Delayed treatment can result in fatal anaphylaxis.

Q 6: Why are food allergen challenges sometimes performed after other allergy tests?

A positive food allergy test using skin prick tests or blood tests for allergen specific immunoglobulin E (IgE) antibodies, means that a person is sensitised to an allergen. This means that their immune system has produced an antibody response to that food. It is possible to be sensitised to a food, without having an allergy to that food. This means that the person can eat the food without any symptoms. For this reason, it can be important to confirm a positive allergy test with a food allergen challenge.

Q 7: How do you prepare for a food allergen challenge?

- You may be asked to bring in the challenge food on the day, which depends on the food allergy that is being assessed.
- The person being challenged must be well on the day of the challenge, with no fever, and other allergic conditions well controlled. If they have asthma, it must be stable with no recent wheezing. Spirometry before the challenge may be considered in some cases.
- Antihistamines should not be taken for four days before the challenge.
- If the person being challenged has a prescribed adrenaline injector, it should be brought to the challenge. If anaphylaxis occurs, it may be an opportunity for the person, or parent to use the adrenaline injector in a controlled setting. Staff will always have a supply of adrenaline available, even if you have your adrenaline injector with you.
- Be prepared to stay at the challenge facility for half a day. This may be longer for some people.
- If there is no allergic reaction resulting from the challenge, be prepared to include the food on a regular basis in the diet. Evidence shows that this will help maintain tolerance of that food.

Q 8: What else do you need to prepare if your child is having a food allergen challenge?

- Talk to your child before the challenge and reassure them that if they have an allergic reaction, it will be managed.
- Bring things to occupy them, as the challenge can take some time.
- You may be asked to bring in a soft or liquid food which your child is not allergic to, and likes to eat, which can be used to mix with the challenge food.
- Take allergy safe snacks that you know your child likes to eat. Let medical staff know that you have these foods before giving them to your child who is having a challenge.
- You may want to pack a spare change of clothes for your child to change into after the challenge.
- If more than one child in a family is being challenged on the same day, it is recommended that each child has a parent or other carer with them.

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Content updated March 2024

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