

Food allergen challenges frequently asked questions (FAQs)

What is a food allergen challenge?

A food allergen challenge is a procedure where small and incremental amounts of a particular food are fed to a person while under medical supervision and monitored to determine if the food being tested causes an allergic reaction.

Most food allergen challenges involve a time period of about 2 to 3 hours to eat the required doses of food, followed by 2 hours of medical observation.

Occasionally the food is given in one serving for rare types of food allergy such as Food Protein Induced Enterocolitis Syndrome (FPIES).

If an allergic reaction occurs, the challenge:

- May take longer.
- Is usually stopped and if necessary, treatment for the allergic reaction is given.
- Is usually called '**positive**' and the person is diagnosed as allergic to the food.

If the challenge is completed without an allergic reaction:

- It is called '**negative**'.
- The person will then be asked to regularly include the food in their diet.

Who can perform food allergen challenges?

Food allergen challenges should **only** be performed:

- **In carefully selected patients** by a clinical immunology/allergy specialist or by appropriately qualified and experienced medical practitioners in consultation with a clinical immunology/allergy specialist.
- **Under medical supervision** with immediate access to emergency treatment for anaphylaxis (severe allergic reaction).

Why are food allergen challenges performed?

Food allergen challenges are mainly used to determine if a:

- Person has outgrown an existing food allergy.
- Suspected food allergy is an actual allergy, when the history or allergy tests are unclear.
- Positive food allergy test in a person who has never before reacted to that food, is associated with an actual allergy to that food.
- Person with confirmed food allergens can safely eat alternative foods. For example, a soy challenge may be used to determine if a person with cow's milk allergy and a positive skin prick test to soy, is also allergic to soy.

What are food allergen challenges **not** useful for?

Due to the incremental and controlled nature of food allergen challenges, it is possible for a person to have a mild allergic reaction at challenge, and then have a severe allergic reaction (anaphylaxis) to the same food in a different setting.

Therefore a food allergen challenge may not completely identify the risk of anaphylaxis due to the future ingestion of a food in a person. However it may provide an indication of the risk. For example, if a mild reaction occurs after only a very small amount of food, that person may be considered at increased risk due to accidental exposure in the future.

Why are food allergen challenges sometimes performed following other food allergy tests?

A positive food allergy test (using skin prick tests or blood tests for allergen specific IgE) means that a person's immune system has produced an antibody response to that food. We call this being sensitised.

However, sometimes false positives can occur, which means that the test is positive yet the person can eat the food without any symptoms. For this reason, it can be important in some circumstances to confirm the significance of a positive allergy test with a food allergen challenge.

What are the implications of a successful (negative) food allergen challenge?

If the challenge is successful and does not result in any allergic reaction, the challenge food will need to be regularly included in the diet. This is very important as some people who do not eat the food for long periods may become sensitised once more and have allergic reactions again.

It is recommended that the food is eaten at least once a week. If you think this will be difficult, you should discuss this with your doctor before undertaking the food allergen challenge.

What are the implications of an unsuccessful (positive) food allergen challenge?

If an allergic reaction occurs during the challenge:

- This will be treated with whatever medications and other measures are needed.
- It will be necessary to stay under medical supervision for a period of time after the challenge.
- The food must continue to be avoided.

Unfortunately, the severity of the allergic reaction during the challenge does not provide any information regarding the severity of any future reactions. For example, if a person has only a mild allergic reaction during the challenge, a reaction on another occasion could be much more serious and even be life-threatening (anaphylaxis).

How do you prepare for a food allergen challenge?

- You may be asked to bring in the challenge food on the day, depending on what food allergy is being assessed.
- The person being challenged must be well on the day of the challenge with no fever and if asthma is present, it must be stable with no recent wheezing.
- If the person being challenged has a prescribed adrenaline (epinephrine) autoinjector this should be brought to the food allergen challenge. If a severe allergic reaction occurs, it may be an opportunity for the person (if old enough and well enough) or parent to administer the adrenaline autoinjector in a controlled setting. Staff will always have a supply of adrenaline available even if you have your adrenaline autoinjector with you.

If your child is having a food allergen challenge ...

- Talk to them beforehand and ensure they are aware that if they have an allergic reaction this 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, to help with the challenge process. It can be used to mix with the challenge food.

Food allergen challenges are performed in a controlled medical environment with medical and nursing staff experienced in treating anaphylaxis, so the way an allergic reaction is managed in a hospital may vary slightly 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. Although management in a hospital may be different, it is **important** that you closely follow instructions on the ASCIA Action Plan for Anaphylaxis when not in a hospital setting.

Will there be other people having food allergen challenges on the same day?

- Yes. Challenges are generally performed in a food allergen challenge clinic with several people having challenges to different foods in the clinic on the same day.
- Medical and nursing staff in these clinics are trained to take care to not cross contaminate foods they are challenging separate patients with.
- Children are encouraged to eat when next to their parents and then play with toys, so that communal toys are not contaminated with different foods. By doing this, skin reactions such as hives are less likely to be attributed to accidental touch reactions from the environment.
- If more than 1 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.

Where can I obtain more information?

Information for people with food allergies, including general information about food allergy and dietary avoidance for food allergens (diet sheets) are available free of charge on the ASCIA website:
www.allergy.org.au/patients/food-allergy

ASCIA anaphylaxis e-training for first aid (community) is available free of charge on the ASCIA website:
www.allergy.org.au/patients/anaphylaxis-e-training-first-aid-community

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ASCIA is the peak professional body for allergy/clinical immunology specialists in Australia and New Zealand

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Disclaimer

Information contained in this document is not intended to replace medical advice and any questions regarding a medical diagnosis or treatment should be directed to a medical practitioner. Protocols have been developed by ASCIA to standardise the way food allergen challenges are conducted by specialist Immunology and Allergy physicians in Australia and New Zealand. ASCIA takes no responsibility for any adverse outcomes that may occur using these protocols. This document and the ASCIA food allergen challenge protocols are peer reviewed, based on expert opinion and published literature, and not funded by, nor influenced by any commercial organisations.

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