A food or drug allergy

Oral Food and Drug Challenge

Your child has symptoms that may be related to a food or drug allergy and has been referred to the paediatrician.

Possible symptoms or a combination of symptoms include:

- Skin: redness, itching, hives
- Gastrointestinal tract: intestinal cramps, vomiting, diarrhoea
- Lungs: shortness of breath, wheezing, hoarseness
- Circulatory system: shock

Any organ system can be affected.

The paediatrician will first try to determine whether your child has antibodies in the blood and/or perform a skin-prick test for the food or drug thought to be the cause. These tests alone are often not enough to confirm a food or drug allergy. Some children have antibodies to a specific food or drug but never develop symptoms when consuming the food or drug in question.

The higher the level of antibodies or the higher the severity of the skin reaction, the higher the risk of symptoms. This means that a child with few antibodies in the blood or a minor reaction to the skin-prick test has a lower chance of having symptoms. A child with high levels of antibodies in the blood or a severe reaction to the skin-prick test is more likely to develop symptoms.

The only reliable test that can accurately diagnose a food or medicine allergy is the elimination diet followed by an oral food/drug challenge.
The food thought to have caused an allergic reaction is removed from your child's diet in an elimination diet. If your child is suspected to be allergic to a drug, we will stop giving that medicine. After the elimination phase, your child will be given the food or drug again during an oral food/drug challenge at the hospital.
If the paediatrician thinks there is little chance of an allergic reaction, the elimination diet will be started without a blood or skin-prick test. If the symptoms disappear after eliminating the food or drug from the diet and then reappear during the oral food/drug challenge at the hospital, your child is allergic.

The elimination diet

Food

During the elimination diet, the paediatrician may ask the dietician for advice. For example, if your child is suspected of having a peanut allergy, the dietitian will prescribe a peanut-free diet.

Drug

If your child is suspected of having a drug allergy, the drug in question will be stopped or replaced by another drug.

The elimination diet lasts up to four weeks. There is no point in continuing any longer. If a rare food or drug is the suspected cause, your child probably hasn't taken it for some time already. If it concerns a common food, such as soy or chicken protein, an elimination diet is necessary to see whether the symptoms disappear.
If no improvement is seen after four weeks, it is not the suspected food causing your child's symptoms. If your child's symptoms decrease during the elimination diet, the paediatrician will suggest an oral food/drug challenge.

Oral Food/Drug Challenge

During an oral food/drug challenge, your child is given the food or drug suspected of causing the allergy in a hospital setting where the reactions can be monitored.

There are two types of oral food/drug challenges:

- a double-blind food challenge;
- open-food challenge.

A double-blind food challenge is performed if your child has vague symptoms such as:

- skin rash;
- stomach ache;
- crying;
- diarrhoea;
- vomiting.

An open-food challenge is performed if your child:

- is suspected of having a drug allergy;
- has clearly recognisable symptoms such as shortness of breath or hives.

Double-blind food challenge
The secretary at the Paediatric Outpatient Clinic will schedule two challenge days with at least one week in between. We do this because allergic reactions can still occur up to 24 hours after the challenge.

The paediatrician asks the dietician to process the suspect food in another food, for example, chicken protein in apple sauce or pancakes.
On the first challenge day, your child will be given the apple sauce **without** the suspected foodstuff, and on the second challenge day, the apple sauce **with** the suspected foodstuff, or vice versa. Only the nutritionist knows which food (with or without the foodstuff to be tested) your child is given on which day. The nutritionist notes which day is which and puts it in a sealed envelope. This is called a double-blind challenge. A double-blind challenge is important because some children react to all foods, in which case the symptoms are not the result of the foodstuff suspected of causing the allergy.

Open-food challenge
In the case of an open-food challenge, your child will be given the suspected food or drug to eat or drink. Everyone knows what and how much of the suspected food or drug your child is getting. Any responses will be carefully noted.

Is your child ill before admission?
In the following cases, it is best to postpone your appointment:

- If your child has an allergic reaction and receives medication within 48 hours of the appointment.
- If your child is ill the day before the appointment (fever, cough, diarrhoea or other symptoms).
- If the challenge coincides with a vaccination (one day before and two days after vaccination). Your child can become ill after the vaccination, and the paediatrician cannot assess whether it is the result of the oral food challenge or the vaccination.

When in doubt, you can consult with the children's ward. If the oral food challenge is postponed, a new appointment will be scheduled two weeks later. Please call the children's ward on +31 40 888 93 70.

Do you have to bring your own food?
No, the dietician ensures that the test food is available in the children's ward.

The day of the oral food challenge

On the agreed day and time, you will come to the Paediatric Outpatient Clinic at the Máxima MC, route 020, location Veldhoven. If your child has any health problems, please inform the nurse. A paediatric house officer will examine your child before and after the challenge. This doctor will decide whether the challenge will go ahead.

Oral Food Challenge
Your child will be given increasing amounts of the suspected food (to eat or drink) every half hour. At each dose increase, your child is checked for any symptoms of an allergic reaction. If your child suffers a reaction during the challenge, the nurse will call for a house officer.

The doctor will determine whether:
- the reaction is the result of the food given;
- it is necessary to stop the challenge;
- medication is needed to manage the symptoms of the allergic reaction.

Drug challenge
In the case of a drug challenge, your child will take the suspected medicine and be checked for symptoms of an allergic reaction every ½ hour for two hours.

If your child shows any symptoms of an allergic reaction, they will be required to stay at the hospital until at least 17:00. The doctor will determine when it is safe for your child to go home. If your child shows no symptoms, they can go home two hours after the test.

What allergic reactions can occur?
Allergic reactions can be divided into four groups, depending on which organ is affected. Symptoms of an allergic reaction can also occur after a challenge.
- Skin: redness, itching, hives
- Gastrointestinal tract: intestinal cramps, vomiting, diarrhoea
- Lungs: shortness of breath, wheezing, hoarseness
- Circulatory system: shock

Allergic reactions at the hospital
Allergic reactions in the lungs and circulatory system will always occur during the hospital challenge. These reactions can be serious, and your child will receive immediate medical care through an IV if necessary. If there is a risk of a severe allergic reaction, we insert the IV before starting the drug challenge.

Allergic reactions after two hours (at home)
Your child may have a late reaction after discharge from the hospital, between 2 and 24 hours after the drug challenge. These reactions to the skin and gastrointestinal tract are generally not that severe. You will receive a prescription from your paediatrician for an anti-allergy drug, a liquid or tablet. Administer this in case of a reaction to the skin or the gastrointestinal tract.

Come to the hospital well prepared

Children and adolescents must be properly prepared for their hospital visits to know what to expect and feel less anxious. You can prepare for your hospital visit at home via our website: www.kindenjeugdmmc.nl. Here you will find information for all ages about the Paediatric Outpatient Clinic, the operating room, the daycare centre and the children's ward.

Check-up and possible follow-up appointments

The paediatrician will call you two days after discharge to discuss any allergic reaction that may have occurred at home. The paediatrician will schedule new appointments with you, depending on your child's response. If your child didn't suffer any symptoms of an allergic reaction to the suspected food or drug, the oral food/drug challenge was negative, and your child is not allergic to the food or drug in question.

Questions

Contact the paediatrician at the Paediatric Outpatient Clinic during office hours if you have any questions about the elimination diet or oral food/drug challenge.

Important telephone numbers

Paediatric Outpatient Clinic	+31 40 888 82 70.
Children's Ward	+31 40 888 93 70.