



# Demystifying Oral Food Challenges



Perhaps your child has had a known food allergy for some time, and now there's reason to believe that the allergy may have been outgrown. Maybe you're in the initial diagnosis process, and your child's allergist has ordered an oral food challenge. Or perhaps your physician would like to do a food challenge to rule out other types of food allergy reactions, such as Food Protein Induced Enterocolitis Syndrome (FPIES). Regardless of the reason why the oral food challenge has been recommended, if you're like many parents, you may find the thought of a food challenge quite frightening. During this test your child will be fed the very food that you believe may cause a reaction.

In a situation like this, you may have a lot of questions running through your mind. What exactly will happen during the oral food challenge? What if my child reacts? What if my child refuses to eat the food? What do I need to do to prepare for the test? The blood test and/or skin prick test already came up positive — doesn't that mean my child is allergic to those foods?

Knowledge is power! This article will address all of these questions and more...so you will be able to approach an oral food challenge with confidence.

## Getting an Accurate Diagnosis is Critical

When a child is diagnosed with potentially life-threatening food allergies, this diagnosis affects many aspects of the child's and family's quality of life. The many precautions that must be taken in order to avoid the allergen can be quite challenging and stressful. If the child is allergic to multiple foods, the diet must be carefully monitored to avoid malnutrition and the potential development of an oral aversion (i.e., the reluctance or fear of eating a food).

While handling all of this is quite doable — severe food allergies are safely and successfully managed by thousands of people every day — food avoidance should not be done unless it is actually necessary. Getting an accurate diagnosis is therefore critical.

## Oral Food Challenges are the “Gold Standard” for Diagnosis

Many people mistakenly believe that food allergies are strictly diagnosed based on skin and/or blood tests alone. As Dr. David Stukus explains in his blog post for KFA on What You Need to Know about Diagnostic Allergy Testing, blood tests and skin prick tests are more accurate for ruling out specific food allergies than they are for diagnosing food allergies. While they are a very useful part of the diagnostic process, a positive result on one or both of these tests is not always definitive, in and of itself, as diagnostic for food allergy.

The more important question is: can your child actually eat the food safely? If your child can eat the food without developing any symptoms, then he or she is unlikely to be allergic to that food. Thus, the oral food challenge — the “feed it to them in a clinical setting and see if they react or not” test — is the only truly accurate test available.

Please keep in mind, though, that food challenges must be done under proper medical supervision and typically should only be done at home when thoroughly discussed and recommended by your allergist (this will depend on your child's history, her/his test results, and the food involved).

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Rev. December 2013



## How the Clinic Staff will Prepare You

Before the oral food challenge is scheduled, you will be able to discuss this decision with your child's allergist. All of your questions and concerns should be addressed. In addition, you will most likely be given some printed material about the oral food challenge to review at home.

A member of the clinic staff — typically a trained allergy nurse, will then contact you prior to the scheduled test date. He or she will answer any questions or concerns you may have and go over important details with you.

## How to Prepare...

### Your Younger Child

For younger children (ages 6 and under) you might find it helpful to do some role playing. For example, using words your child will understand, you can say: "You and I are going to go to the allergy doctor's office. You're going to get to eat a little bit of [name of allergen] to see if your body is okay with it now. If everything is okay you'll then eat a little bit more and a little bit more." You can then play it out at home, pretending to do the test using a similar, allergen-free food.

Answer any questions your child may have in clear, non-frightening terms. Make sure your child understands that you'll be at the doctor's office for a while, and let him or her feel like this will be a very special and fun time for the two of you to spend together.

### Your Older Child

Let your child know that you have scheduled the food challenge that was discussed at his or her last visit to the allergist. Ask your child if he or she is feeling worried about the test. If so, have your child write down the top five things that are making him or her feel anxious about doing the challenge. Go down the list and address each item one by one.

Never try to trick your child. Do not avoid discussing the challenge until the day of the test. Give your child time to emotionally prepare, and provide all of the reassurance and straight-forward answers that he or she needs.

## What to Do Before the Food Challenge

- **1 to 2 weeks before the test:** Most oral food challenges take about three to six hours. However, if your child has a severe reaction (especially if this reaction happens during the final dose of the test), you may be at the clinic for even longer.

Because of this, you must make arrangements for you and your child to be at the clinic for the day. This includes making arrangements for you to miss work, for your child to miss school and any after-school activities (if the test is scheduled for a school day), and for someone else to care for your other children and/or take care of your other responsibilities on that day.

- **3 to 5 days before the test:** Based on the instructions from your child's allergist, do not give your child any antihistamine for three to five days before the test.
- **Day before the test:** Reconfirm any arrangements that you have made for your other children. Review the "what to bring" list below and make sure you have these items on hand. Be sure you are prepared to bring the food that will be used for the challenge, if you have been instructed to do so.
- **Day of the test:** Do not give your child any albuterol (an asthma medication). If your child needs his or her inhaler due to an asthma flare on the day of the test, call the clinic to discuss if he or she is healthy enough for the challenge.

Pack up everything on the "what to bring" list. Check with your child's allergy clinic team about whether or not your child should eat any food the morning of the scheduled challenge, and follow the instructions you are given.

## What to Bring to the Food Challenge

- **Things for your child to do:**

Food challenges typically take three to six hours; sometimes they take longer. This is a very long time for a child to sit around in a medical clinic. Bring things to entertain your child, such as books, toys, paper and crayons, electronic devices and other non-edible items. If your child is young, bring a favorite comfort item, such as a stuffed animal or "blanky."



- **Change of clothes for your child:** In case your child has a reaction and vomits, or gets the allergen on his or her clothes before failing the test, you'll want to have some clean clothes on hand.
- **Change of clothes for you:** You may want to at least bring a clean shirt, in case your child vomits on you.
- **Foods to be challenged:** You will be instructed as to exactly what to bring.
- **Safe food for after the challenge:** You and your child are likely to be hungry by the time the test is over. During the final waiting time you might want a safe snack to share. Water is a beverage that can typically be consumed during the challenge.
- **Two epinephrine autoinjectors:** To have with you on the car ride home.
- **Any other items that your allergist recommends:** Check the list that they provide.

## Your Child Must be Healthy on the Day of the Food Challenge

In fact, your child must be 100% healthy for at least 24 hours before the food challenge, too. He or she cannot be just coming off or apparently just coming down with an illness. This means no cold symptoms, no diarrhea and no fever. If your child is not 100% well, the food challenge may be re-scheduled.

If your child has asthma, the asthma must be very stable, and not in the middle of a flare-up.

If your child has eczema, his or her skin must be stable, too, and not in the middle of a flare-up. This does not mean that his or her skin must be clear, if it is not usually clear. It just needs to be “typical,” whatever this means for your child.

## What to Expect During the Food Challenge

The following is a description of how oral food challenges might be done at food allergy centers in the U.S. Keep in mind that the protocols followed may vary. Here’s what you might experience:

- **A High Level of Supervision:** The challenge will be conducted by a nurse, under the supervision of a physician, who has been specifically trained to manage oral food challenges. This nurse will either be assigned one-on-one to supervise your child’s food challenge, or will be supervising a few food challenges at once. He or she will be nearby and will not be responsible for other clinical activities during your child’s test.
- **A Safe Environment:** In addition to close supervision from a trained nurse, a doctor will always be nearby and available. Emergency medications (including epinephrine, albuterol, antihistamine and other emergency medications) will all be on hand and ready to be used.
- **The Use of Measured, Increasing (Graded) Doses:** At the start of the challenge your child will be fed a very small, measured amount of the suspected allergen and observed closely. The test does not start with a full serving! If no symptoms develop after 10 to 20 minutes, then another, slightly larger amount of the food will be given. If things go well, this process will be repeated over the course of about three hours. The goal is to work up to a full serving size for your child’s age.
- **No Forcing or Tricks:** The nurse who conducts the test understands that both you and your child may experience anxiety. While various methods will be used to encourage your child to eat the food, your child will never be forced to do so. If he or she absolutely refuses to eat the food, the test will be stopped and rescheduled for another time.

All oral food challenges are done in a developmentally appropriate way. The child is not bribed or tricked. The food being tested may be mixed with another food that is known to be safe in order to make it more palatable. However, if the child is old enough to understand the concept of what is being done, then he or she will be told that the allergen is there. Some challenges are done in a “blinded” fashion where a placebo is also used. This is only done with full consent from the family.

- **No Other Food Given During the Test:** During the food challenge the only things your child will be allowed to eat or drink are water and the food or beverage that is being given as part of the test.

## What Foods are Commonly Challenged?

Oral food challenges are usually done using the actual food itself, such as...

- **Dairy:** milk
- **Heated Milk:** specific baked recipe that contains milk
- **Eggs:** scrambled egg and/or French toast
- **Baked Eggs:** specific baked recipe that contains eggs
- **Grains:** flour, which is mixed with a safe food such as applesauce or pudding
- **Peanuts and Tree Nuts:** nut butter, specific nut, or nuts ground up to a flour consistency and mixed with a safe food
- **Soy:** soy milk, which can be mixed with a safe liquid or served with a safe chocolate syrup to mask the taste
- **Fish:** a cooked piece of the actual fish
- **Shellfish:** typically a cooked piece of shrimp or crab

## Strategies to Make the Foods Less Scary for the Child

A child who has spent years learning to avoid a food may be understandably frightened by the thought of being given that particular food. There are many things that can be done to help make the test less frightening. Depending on the child’s age, the possibilities include:

- Using the child’s familiar sippy cup from home
- Using the child’s own dishes and silverware from home
- Mixing liquids with a safe liquid that the child enjoys
- Feeding the child an allergen-free version of the food at home for a few weeks prior to the test, to help them get familiar with the food’s look, taste, texture and consistency
- Serving nut butters spread on a favorite cracker or piece of bread
- Serving the food with ketchup, syrup or another safe and familiar condiment

Many parents or caregivers experience anxiety before or during their child’s food challenge. It is important to acknowledge these worries and talk about them with your child’s allergist. It is also important not to let your child know about your anxiety or to shift your worries onto your child.



## What Happens if My Child Has a Reaction?

The clinic staff is prepared and will provide appropriate treatment for any type of reaction that may occur. Depending on the severity of the reaction (i.e. two hives versus full-blown anaphylaxis), treatment can mean anything from stopping the test and simply observing the child to giving antihistamines and/or asthma medication, to giving an injection of epinephrine.

If it is developmentally and medically appropriate, you (or the parent/caregiver who is present) and your child will be involved in the treatment process (i.e. using the epinephrine auto-injector, etc.).

The food challenge itself will be halted. Depending on the severity of the reaction, your child will be kept for another two to six hours for observation.

## A Reaction Can Also be a Learning Opportunity

For older children who have no memory of their last allergic reaction, experiencing a reaction during the food challenge can be an excellent opportunity for the child (and you!) to see that if a reaction occurs it can be treated and everything will be okay. It also gives the child the opportunity to experience what a reaction might feel like, to help him or her recognize the feeling if it should ever occur again. Plus, it can be an opportunity for the family to participate in treating the reaction.

Of course, a reaction can be a terrible disappointment for both you and your child. Help your child to see the experience in a positive light and not as a failure.

## What Happens if My Child Does Not Have a Reaction?

Once the test is complete your child will be observed for an additional one to two hours. If all is well, this means that your child “passed” the test! You will be sent home with specific instructions regarding how to add this food to your child’s diet. Your allergist may recommend a schedule for introducing the food and how frequently to keep the food in your child’s regular diet.

*Although not all children will become eligible for a food challenge, a food challenge should be offered when appropriate. The oral food challenge is the “Gold Standard” in food allergy diagnosis, and as such is a valuable tool in managing a child’s real or suspected food allergies.*

*Quality of life issues impact families of children who have food allergies in a variety of ways. Food challenges can help the clinician manage the allergies based on better information about the presence and severity of the allergy, thereby increasing the quality of life for all involved. Most importantly, if your child passes a challenge then this will expand his or her diet and add a variety of new options.*

**Nancy Polmear-Swendris, MEd, RN** is the program coordinator for the University of Michigan’s Food Allergy Program. Nancy is also a certified school nurse in the Ann Arbor, MI, school district.

## FOR MORE INFORMATION

For more information about managing children’s food allergies, please visit:

**KidsWithFoodAllergies.org**

Family education resources, food and cooking resources, recipes, school planning, and connecting online with other parents.

**AAFA.org**

Support group information.

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Rev. December 2013

