Food Protein-Induced Enterocolitis Syndrome (FPIES) Frequently Asked Questions (FAQ)

This FAQ has been developed to assist understanding about FPIES, and includes information that was previously in the ASCIA FPIES Dietary Guide. This FAQ should be provided in addition to the ASCIA FPIES Action Plan www.allergy.org.au/patients/food-other-adverse-reactions/fpies-action-plan

Q 1: What is FPIES?

Food protein-induced enterocolitis syndrome (FPIES), is a delayed (non-IgE mediated) gut allergic reaction to a food(s), usually presenting in the first two years of life, with an estimated incidence in this age group of 1 in 7,000 children. FPIES can occur in adults, although this is uncommon.

Q 2: What are the symptoms of FPIES?

Acute FPIES presents with repetitive, profuse vomiting that typically starts one to four hours after a triggering food is eaten. Some infants can become floppy, pale, cold and develop diarrhoea.

Chronic FPIES is uncommon, and usually occurs in infancy, due to repeated exposure to a food trigger (usually cow's milk protein or soy). It presents with persistent vomiting and/or diarrhoea (which can result in poor weight gain over time). If the trigger is reintroduced before the condition is outgrown, an acute FPIES reaction can occur.

Q 3: Which foods can trigger FPIES?

Although any food can trigger FPIES, the most common triggers for infants and children are rice, oat, cow's milk (dairy) and egg. FPIES in exclusively breastfed infants is rare.

The most common food trigger for adults is seafood.

Q 4: How is FPIES different to many common food allergies?

It is possible for a child with FPIES to also have Immunoglobulin E (IgE) mediated allergies to other foods, and/or have eczema and/or asthma.

However, FPIES is **not** caused by IgE, and:

- Is usually a delayed reaction.
- Reactions only involve the gastrointestinal system.
- No hives, welts or swellings are seen on the face or body.
- Is not associated with anaphylaxis, so adrenaline (epinephrine) is not used to treat an FPIES reaction.

Q 5: How is FPIES diagnosed?

There are no blood or skin tests that can confirm a diagnosis of FPIES and the diagnosis is made on the history of reactions and symptoms. Some tests that are not useful include serum IgE testing, skin prick testing and atopy patch testing to food proteins.

Blood tests may be ordered to look for conditions that have similar symptoms to FPIES.

During an FPIES reaction some children may have a high white cell and platelet count, and therefore the child may be mistaken for having an infection. However, unlike when there is an infection, fever is rare, inflammatory markers (such as C-reactive protein) are usually not elevated and recovery within hours typically occurs after an acute FPIES reaction.

Medically supervised oral food challenges can be useful when the history is not clear or to establish when a child has outgrown FPIES.

Q 6: How is FPIES treated and managed?

Currently the only management option for prevention of FPIES reactions is to avoid the trigger food/s.

FPIES reactions are managed by giving fluids to maintain hydration. In some cases, your specialist may recommend giving ondansetron wafers that dissolve in the mouth to help stop the vomiting. In more severe cases where the vomiting is excessive, and the child is pale and floppy, intravenous fluids may be needed.

There is no role for the use of adrenaline injectors in the management of FPIES.

Q 7: What foods need to be avoided when my child is diagnosed with FPIES?

FPIES reactions are rarely triggered via breastmilk, and so in most cases there is no need for a breastfeeding mother to exclude an infant's FPIES triggers from her own diet.

Your child's allergy specialist and dietitian will discuss which foods to avoid and which foods to introduce to your child. Having FPIES to certain foods may increase the risk of FPIES to another specific food. These foods are outlined in the table below. It is important to leave any food in your child's diet that they are already tolerating, and to continue to introduce your child to a wide range of foods. For example, if your child has FPIES to rice but already tolerates oats, leave oats in their diet, keep introducing other foods and just avoid rice.

If your child has FPIES to:	Foods to avoid introducing - unless advised by your child's allergy specialist
Cow's milk (dairy)	Soy
Rice	Oats (introduce other grains, such as wheat and corn)
Chicken	All poultry
Fish	All fish (unless already tolerating some types of fish) Your child's allergy specialist or allergy dietitian will advise whether your child can have other seafood
Fruits or Vegetables	Avoid the fruits or vegetables your child has reacted to Introduce other fruits and vegetables. If you are not sure, discuss which other fruits and vegetables to introduce with your child's allergy specialist or dietitian

Q 8: Is it possible to have FPIES to more than one food?

Most children (75%) will only have one food trigger for FPIES and only need to avoid one food.

If your child reacts to more than one food, it is best to discuss management with your allergy specialist, and an experienced paediatric allergy dietitian.

Q9: How can appropriate feeding skill development be encouraged?

The first episode of FPIES can be traumatic for some parents, who may be hesitant to give new foods in case it happens again. It is important to continue to offer a wide range of foods during the first year of life so that children will accept a variety of foods and textures.

Limiting the range of foods can lead to nutritional deficiencies, poor growth, food refusal and feeding difficulties. Unnecessary delayed introduction of common allergenic foods such as egg or peanut can even increase the risk of developing allergy to these foods. Currently there have been no studies to determine whether delaying the introduction of certain foods results in reduced risk of developing FPIES to that food.

An experienced paediatric allergy dietitian can assist with a feeding plan to encourage successful progression of feeding whilst avoiding FPIES triggers.

Q 10: When can foods be reintroduced?

The long term outcome for FPIES is excellent. To date, there have been *no* published reports of a fatality from an acute FPIES reaction.

You should only reintroduce foods that your child has reacted to under the direction of your child's allergy specialist.

Most children outgrow FPIES by three years of age, but some children will outgrow their allergy earlier or later than this. A plan for when and how to reintroduce the FPIES trigger food/s will be determined by your child's allergy specialist. This may be done either as a medically supervised oral food challenge or if recommended by your allergy specialist, a re-introduction of the triggering food at home.

Q 11: Where can further information and support be obtained?

Information about food allergy and other adverse reactions to food is available on the ASCIA website:

www.allergy.org.au/patients/food-allergy

www.allergy.org.au/patients/food-other-adverse-reactions

Support for people with FPIES and their carers:

Allergy & Anaphylaxis Australia: www.allergyfacts.org.au

Allergy New Zealand: www.allergy.org.nz