

Food Protein-Induced Enterocolitis Syndrome (FPIES)

What is FPIES?

Food Protein-Induced Enterocolitis Syndrome is a delayed type of food allergy that affects the gastrointestinal (GI) tract, and typically involves recurrent vomiting that happens hours after eating a food.

What are symptoms of FPIES?

The most common symptom is vomiting, which has onset 1-6 hours after ingestion of a food and may be forceful and prolonged. Some people have diarrhea, usually 1-2 hours after vomiting. A small number of patients will be pale, lethargic (sleepy, hard to wake), have low blood pressure, and require intravenous fluids and hospitalization.

What are common FPIES triggers?

In infants, the most common trigger foods are cow's dairy and soy. In older children, egg, rice, and oat are common triggers. In adults, fish and shellfish are the most reported trigger foods. Any food protein can trigger a reaction, and we are seeing increasing numbers of peanut and tree nut FPIES cases. Most patients have a single food trigger, while having multiple trigger foods is less common.

How do you test for FPIES?

FPIES is a non-IgE (immediate) mediated food allergy. Unlike typical food allergies, symptoms may not be immediate and do not include hives, swelling or wheezing, and do not show up on standard allergy tests (skin prick or serum IgE testing). The diagnosis is based on the history of reaction and generally requires 2 or more episodes with the same food. Food challenges may be recommended for diagnostic confirmation.

How do you treat FPIES?

Most reactions can be monitored at home with observation and fluids. Your physician may prescribe a medication called ondansetron, which can be given by mouth or intramuscularly (as an injection) to help reduce the duration and severity of vomiting. As mentioned above, some FPIES reactions can be severe and may require medical attention. If your child is having an FPIES reaction and becomes pale or lethargic or shows signs of dehydration it is important to seek medical attention immediately.

Depending on the food trigger and age at onset, most people will outgrow the condition within 2-5 years. The condition appears to be more persistent in adults, though evidence is limited.

Treatment options include strict avoidance followed by a food challenge 1-2 years after the most recent reaction. An alternative approach involves use of food ladders to facilitate reintroduction of the food in very small amounts, gradually increasing the amount consumed over time. As strict avoidance of foods can increase the risk of immediate type (IgE-mediated) allergy in certain individuals (those with eczema, asthma, environmental allergies or a family history of these conditions), reintroduction and food ladder use is our preferred approach for:

- Patients with eczema, asthma, environmental allergies or a family history of these conditions
- Patients whose FPIES trigger food is a common cause of immediate type (IgE-mediated) food allergy (e.g. peanuts, tree nuts, eggs, cow's dairy, shellfish, etc.)

Minimizing the duration of food avoidance may prevent the development of life threatening IgE-mediated allergy.

What can we do while we wait for an allergy assessment?

While awaiting assessment, your child should strictly avoid the suspected trigger food. If your child can tolerate a certain amount or form of the food without reaction, they should continue to eat this amount regularly (e.g. eggs or dairy in baked forms like muffins).