Common allergens in infants

Why infant allergies can be hard to interpret

Infants commonly develop rashes, spit up, pass loose stools, cry intensely, and have sleep disruptions for many reasons unrelated to allergy. At the same time, genuine food allergy can present early in life, especially as milk feeds and solid foods expand. This overlap is why it is rarely helpful to label every symptom as an allergy without a structured assessment.

A clinician usually considers timing, reproducibility, the specific food involved, the amount eaten, associated skin or respiratory signs, growth pattern, stool findings, eczema history, and family history of atopy. The pattern matters: a baby who develops hives and facial swelling 20 minutes after egg has a different risk profile from a baby with chronic mucus in the stool while otherwise feeding and growing normally.

It is also important to distinguish allergy from intolerance. Allergy involves immune mechanisms. Intolerance, such as difficulty digesting lactose, does not involve the same immune pathways and is managed differently. Because unnecessary food restriction can affect nutrition and feeding confidence, suspected reactions should be discussed with a pediatrician, dietitian, or allergist before long-term elimination diets are used.

The major common allergens in infants

The major common allergen foods during weaning are cow's milk, egg, peanut, tree nuts, wheat, soy, sesame, fish, and shellfish. These foods account for many IgE-mediated food allergies in children, although the exact pattern varies by region, diet, and family history.

Cow's milk: Often the earliest dietary allergen because many infants are exposed through formula, breast milk proteins, or dairy-containing solids.
Egg: Egg white proteins are common triggers, although reactions may occur to egg in different forms.
Peanut: Peanut allergy can be persistent, but early introduction in appropriate infants may help reduce risk.
Tree nuts: Examples include almond, cashew, walnut, hazelnut, pistachio, and others. Whole nuts are choking hazards and must not be given to infants.
Wheat: Wheat can trigger IgE-mediated allergy in some infants, though many babies tolerate cereals and breads well when textures are safe.
Soy: Soy may be involved in IgE-mediated allergy or non-IgE gastrointestinal conditions, and it can overlap with cow's milk protein allergy in some babies.
Sesame: Sesame has become increasingly recognized as an important allergen and may appear in tahini, hummus, baked foods, or seed pastes.
Fish and shellfish: These can cause allergic reactions, though many infants are not exposed until later depending on family diet.

These foods should be offered only in developmentally appropriate, baby-safe textures. Peanut butter, for example, should be thinned or mixed into puree rather than given as a thick spoonful. Nuts should be offered as smooth nut butter thinned into foods or as finely ground nut meal mixed into a soft food, never as whole nuts or hard pieces.

IgE-mediated food allergy symptoms

IgE-mediated food allergy symptoms typically begin quickly, often within minutes and usually within two hours after ingestion. They may involve more than one organ system. Skin symptoms can include hives, flushing, itching, or swelling of the lips, eyelids, or face. Gastrointestinal symptoms can include vomiting or abdominal distress. Respiratory symptoms may include coughing,

wheezing, noisy breathing, or breathing difficulty after allergen exposure.

Anaphylaxis is a severe, potentially life-threatening allergic reaction. In infants, it may be harder to recognize because they cannot describe dizziness, throat tightness, or a sense of doom. Warning signs may include sudden lethargy, pallor, persistent cough, wheeze, swelling of the tongue or throat, repetitive vomiting, or collapse, especially when they occur soon after a likely allergen exposure.

If a baby has a history of immediate reactions, the next steps should be individualized. A clinician may recommend allergy testing, supervised oral food challenge, temporary avoidance of a specific food, or an emergency plan. Testing without a consistent clinical history can produce false positives, so interpretation should be done by someone experienced in pediatric allergy.

Cow’s milk protein allergy

Cow’s milk protein allergy is one of the most discussed infant allergies because exposure can occur early through standard cow’s milk-based formula, dairy proteins in complementary foods, or small amounts transferred through breast milk. It can be IgE-mediated or non-IgE-mediated, and the symptom pattern differs.

IgE-mediated cow’s milk allergy may cause rapid hives, swelling, vomiting, wheeze, or anaphylaxis after milk protein exposure. Non-IgE forms tend to be delayed and may present with blood or mucus in stool, vomiting, diarrhea, feeding difficulty, or poor growth in more significant cases. Food protein-induced allergic proctocolitis, a non-IgE condition, often presents in otherwise well infants with blood-streaked stools, though other diagnoses must also be considered.

Management depends on the baby’s feeding method, severity, growth, and suspected mechanism. Some infants may need a hypoallergenic formula, while breastfed infants may sometimes be managed with maternal dietary changes under professional supervision. Because dairy is nutritionally important and infant formulas differ significantly, formula changes and prolonged milk avoidance should be guided by a pediatric clinician.

FPIES and other delayed gastrointestinal reactions

Food protein-induced enterocolitis syndrome, or FPIES, is a non-IgE-mediated food allergy that mainly affects the gastrointestinal tract. Unlike classic immediate allergy, FPIES often causes delayed repetitive vomiting, commonly one to four hours after eating the trigger food. Some infants may become pale, floppy, lethargic, or dehydrated. Diarrhea can occur later.

Common FPIES triggers include cow’s milk, soy, rice, oats, egg white, and other foods, though many foods can be implicated. Because skin hives and wheezing are usually absent, families may initially think the baby has a stomach virus. A pattern of repetitive vomiting after eating the same food is an important clue to discuss with a pediatrician or allergist.

Acute severe FPIES can require urgent medical care for dehydration and shock-like symptoms. Diagnosis is clinical and sometimes supported by a supervised oral food challenge in a medical setting. Families should not attempt to confirm suspected FPIES at home by repeatedly feeding the suspected trigger.

Introducing allergenic foods safely

For many babies, allergenic foods can be introduced around 6 months of age, when the baby is developmentally ready for solids, and not before 4 months. Developmental readiness usually includes good head and neck control, interest in food, and the ability to sit with support. Current prevention guidance generally does not recommend delaying common allergens for most infants.

Practical steps can reduce anxiety and improve observation. Offer a small amount of one new allergenic food at a time, in the morning or earlier in the day when medical help is easier to access if needed. Use baby-safe allergen food textures, such as well-cooked egg mashed into puree, smooth peanut butter thinned with warm water or mixed into cereal, yogurt without added sugar, or finely flaked cooked fish with bones removed.

Once an allergenic food is tolerated, regular exposure after tolerated allergens is usually encouraged, because occasional single exposures may not support ongoing tolerance. Frequency and serving size should be realistic for

the family diet and the infant’s feeding stage. Babies with severe eczema, existing food allergy, or previous reactions should have individualized guidance, and some may need evaluation before peanut or egg introduction.

When to seek help and what to track

A feeding and symptom diary can be useful when reactions are unclear. Record the food, amount, preparation, timing, symptoms, duration, treatment, and whether the same food was tolerated previously. Photos of rashes can help clinicians, especially because infant skin changes may resolve before an appointment.

Seek prompt medical advice for suspected food reactions in babies, especially if symptoms are reproducible, involve more than one body system, or affect feeding, hydration, breathing, or growth. Emergency care is appropriate for breathing difficulty, tongue or throat swelling, persistent wheezing, repeated vomiting with lethargy, blue or gray color, limpness, or collapse.

Try not to remove multiple foods from an infant’s diet without medical supervision. Broad elimination can make feeding more stressful, increase nutritional risk, and complicate later evaluation. A pediatrician, pediatric allergist, or pediatric dietitian can help design a plan that balances safety, nutrition, and the family’s day-to-day reality.