

key points

SELECTED BY

Dr Peter Saul

GP, Wrexham and Associate GP Dean for North Wales, UK

Allergy to milk and egg are the two most prevalent food allergies in children. They are typically diagnosed in infancy and carry a good prognosis with the majority of cases resolving before the child reaches school age. Other allergies may present later in childhood and are more likely to persist. Severe eczema in early life is a major risk factor for allergy as defects in the skin barrier allow allergens to penetrate and provoke an immune response resulting in sensitisation. There is evidence of a causal link between early onset severe and widespread eczema that is unresponsive to moderate topical steroids and development of IgE mediated food allergy, in particular peanut allergy.

Allergic reactions can be classified as either IgE mediated (immediate) and non-IgE mediated (delayed) reactions. IgE mediated reactions occur within minutes (usually < 30 minutes) of allergen ingestion and are caused by mast cell degranulation as the allergen binds to IgE on the surface of the cell. This leads to histamine release and causes symptoms such as rash, hives, itching and swelling, abdominal pain and vomiting. In non-IgE mediated reactions symptoms usually occur 2 -72 hours after ingestion of the allergen and can be cutaneous, i.e. a rash or a flare of eczema, or gastrointestinal, such as vomiting, diarrhoea, blood in the stool, abdominal pain or colic in infants. The mechanism of action is less clearly defined.

The best way to diagnose allergy is with a good history. Skin prick testing and specific IgE testing are commonly used in secondary and tertiary care in addition to history taking to aid diagnosis for immediate type allergies, particularly if there is doubt as to the causative allergen from the history given. However, both tests can return false-positive or false-negative results and must be interpreted with caution.

Ingestion of allergens during pregnancy or breast feeding has no impact on the prevalence of allergy in infants and so it is recommended that mothers should not alter their diet for this purpose. If non-IgE mediated milk allergy is suspected in an infant the practitioner can suggest the mother excludes milk protein from her own diet if breast feeding or tries a hypoallergenic formula if the baby is bottle fed. This should be tried for 2-4 weeks, and it is important to re-challenge the baby to cow's milk protein after this period to see if the symptoms recur or worsen. The EAT study showed that infants who were weaned early and exposed to egg and peanut had a significant reduction in allergy to both foods.

Avoidance of the allergen is still the mainstay of management, and once an allergy has been confirmed patients should be referred to a dietitian for advice on exclusion diets and nutritionally replete alternatives. Symptoms of a mild to moderate allergic reaction can be managed with an oral antihistamine, given at the first sign of a reaction. Symptoms suggestive of anaphylaxis should be treated with adrenaline without delay, emergency services should be called and the child admitted to hospital.