



*National Institute for  
Health and Clinical Excellence*

## Quick reference guide

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# Food allergy in children and young people

Diagnosis and assessment of food allergy in children and young people in primary care and community settings



## About this booklet

This is a quick reference guide that summarises the recommendations NICE has made to the NHS in 'Food allergy: diagnosis and assessment of food allergy in children and young people in primary care and community settings' (NICE clinical guideline 116).

## Introduction

Food allergy is an adverse immune response to a food. Food allergy is one of the most common allergic disorders and is recognised as a major paediatric problem in western countries. Its prevalence has increased dramatically in recent decades. There is great variation in current practice for allergy care, and there are no agreed treatment pathways or referral criteria. Many people use alternative sources of support instead of NHS services, including non-validated tests and treatments.

## Patient-centred care

Treatment and care should take into account the individual needs and preferences of children and young people with possible food allergy, and those of their parents and carers. Good communication is essential, supported by evidence-based information, to allow children and young people and their parents and carers to reach informed decisions about their care. Follow advice on seeking consent from the Department of Health or Welsh Assembly Government if needed.

## Key to terms

Food allergy can be classified into **IgE-mediated** and **non-IgE-mediated** allergy.

**IgE-mediated** reactions are acute and often have a rapid onset.

**Non-IgE-mediated** reactions are generally characterised by a delayed and non-acute onset.

**Mixed reactions** involve a mixture of both IgE and non-IgE responses.

NICE clinical guidelines are recommendations about the treatment and care of people with specific diseases and conditions in the NHS in England and Wales.

This guidance represents the view of NICE, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summary of product characteristics of any drugs they are considering.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties.

# Care pathway

## Initial recognition

Consider food allergy in a child or young person who:

- has one or more of the signs and symptoms in **box 1** (pay particular attention to persistent symptoms that involve different organ systems) **or**
- has had treatment for atopic eczema<sup>1</sup>, gastro-oesophageal reflux disease or chronic gastrointestinal symptoms (including chronic constipation) but their symptoms have not responded adequately.

<sup>1</sup> For information about treatment for atopic eczema, see 'Atopic eczema in children' (NICE clinical guideline 57).

## History and examination

- Do not offer allergy tests without first taking an allergy-focused clinical history.
- A healthcare professional with the appropriate competencies (a GP or other healthcare professional) should take a clinical history using the questions in **box 2**.
- Based on the clinical history, physically examine the child or young person, in particular for:
  - growth and physical signs of malnutrition
  - signs indicating allergy-related comorbidities (atopic eczema, asthma and allergic rhinitis).

## When to consider referral (also see blue referral box below)

If any of the following apply, consider referral to secondary or specialist care:

- The child or young person has:
  - faltering growth with one or more gastrointestinal symptoms in **box 1**
  - had one or more acute systemic reactions or severe delayed reactions
  - significant atopic eczema where multiple or cross-reactive food allergies are suspected by the parent or carer
  - possible multiple food allergies.
- There is persisting parental suspicion of food allergy (especially where symptoms are difficult or perplexing) despite a lack of supporting history.

Food allergy is suspected

## Assessment

Information and support

Offer age-appropriate information that is relevant to the type of allergy (IgE-mediated, non-IgE-mediated or mixed). Include:

- the type of allergy suspected
- the risk of a severe allergic reaction
- any impact on other healthcare issues such as vaccination
- the diagnostic process, which may include:
  - an elimination diet followed by a possible planned rechallenge or initial food reintroduction procedure
  - skin prick tests and specific IgE antibody testing and their safety and limitations
  - referral to secondary or specialist care
- support groups and how to contact them.

IgE-mediated allergy is suspected

- Offer a skin prick test and/or blood tests for specific IgE antibodies to the suspected foods and likely co-allergens. Base choice of test on:
  - the clinical history **and**
  - the suitability for, safety for, and acceptability to the child (or their parent or carer) **and**
  - the available competencies of the healthcare professional.
- Tests should only be undertaken by healthcare professionals with appropriate competencies.
- Only undertake skin prick tests where there are facilities to deal with an anaphylactic reaction.
- Interpret test results in the context of clinical history.
- Do not use atopy patch testing or oral food challenges to diagnose IgE-mediated allergy in primary care or community settings.

Non-IgE-mediated allergy is suspected

- Try eliminating the suspected allergen for 2–6 weeks, then reintroduce. Consult a dietitian with appropriate competencies about nutritional adequacies, timings and follow-up.
- Taking into account socioeconomic, cultural and religious issues, offer information on:
  - what foods and drinks to avoid
  - how to interpret food labels
  - alternative foods to eat to ensure a balanced diet
  - the duration, safety and limitations of an elimination diet
  - oral food challenge or reintroduction procedures, if appropriate, and their safety and limitations.
- If allergy to cows' milk protein is suspected, offer:
  - food avoidance advice to breastfeeding mothers
  - information on appropriate hypoallergenic formula or milk substitute to mothers of formula-fed babies.

Consult a dietitian with appropriate competencies.

Consider referral to secondary or specialist care if:

- symptoms do not respond to a single-allergen elimination diet
- the child or young person has confirmed IgE-mediated food allergy and concurrent asthma
- tests are negative but there is strong clinical suspicion of IgE-mediated food allergy.

Diagnosis

Diagnosis

Alternative diagnostic tools

Do not use the following alternative diagnostic tests in the diagnosis of food allergy:

- vega test
- applied kinesiology
- hair analysis.

Do not use serum-specific IgG testing to diagnose food allergy.

Box 2 Allergy-focused clinical history

Ask about:

- any personal history of atopic disease (asthma, eczema or allergic rhinitis)
- any individual and family history of atopic disease (asthma, eczema or allergic rhinitis) or food allergy in parents or siblings
- details of any foods that are avoided and why
- presenting symptoms and other symptoms that may be associated with food allergy (see **box 1**), including:
  - age at first onset
  - speed of onset
  - duration, severity and frequency
  - setting of reaction (for example, at school or home)
  - reproducibility of symptoms on repeated exposure
  - what food and how much exposure to it causes a reaction
- cultural and religious factors that affect the child's diet
- who has raised the concern and suspects the food allergy
- what the suspected allergen is
- the child's feeding history, including age of weaning and whether they were breastfed or formula-fed (if the child is breastfed, consider the mother's diet)
- details of previous treatment, including medication, for the presenting symptoms, and the response to this
- any response to the elimination and reintroduction of foods.

Box 1 Signs and symptoms of possible food allergy<sup>2</sup>

IgE-mediated	Non-IgE-mediated
<b>The skin</b>	
<ul style="list-style-type: none"> <li>• Pruritus</li> <li>• Erythema</li> <li>• Acute urticaria (localised or generalised)</li> <li>• Acute angioedema (most commonly in the lips and face, and around the eyes)</li> </ul>	<ul style="list-style-type: none"> <li>• Pruritus</li> <li>• Erythema</li> <li>• Atopic eczema</li> </ul>
<b>The gastrointestinal system</b>	
<ul style="list-style-type: none"> <li>• Angioedema of the lips, tongue and palate</li> <li>• Oral pruritus</li> <li>• Nausea</li> <li>• Colicky abdominal pain</li> <li>• Vomiting</li> <li>• Diarrhoea</li> </ul>	<ul style="list-style-type: none"> <li>• Gastro-oesophageal reflux disease</li> <li>• Loose or frequent stools</li> <li>• Blood and/or mucus in stools</li> <li>• Abdominal pain</li> <li>• Infantile colic</li> <li>• Food refusal or aversion</li> <li>• Constipation</li> <li>• Perianal redness</li> <li>• Pallor and tiredness</li> <li>• Faltering growth plus one or more gastrointestinal symptoms above (with or without significant atopic eczema)</li> </ul>
<b>The respiratory system (usually in combination with one or more of the above symptoms and signs)</b>	
<ul style="list-style-type: none"> <li>• Upper respiratory tract symptoms – nasal itching, sneezing, rhinorrhoea or congestion (with or without conjunctivitis)</li> </ul>	
<ul style="list-style-type: none"> <li>• Lower respiratory tract symptoms (cough, chest tightness, wheezing or shortness of breath)</li> </ul>	
<b>Other</b>	
Signs or symptoms of anaphylaxis or other systemic allergic reactions	

<sup>2</sup> Note: this list is not exhaustive – the absence of these symptoms does not exclude food allergy.

## Further information

### Ordering information

You can download the following documents from [www.nice.org.uk/guidance/CG116](http://www.nice.org.uk/guidance/CG116)

- A quick reference guide (this document) – a summary of the recommendations for healthcare professionals.
- 'Understanding NICE guidance' – a summary for patients and carers.
- The full guideline – all the recommendations, details of how they were developed, and reviews of the evidence they were based on.

For printed copies of the quick reference guide or 'Understanding NICE guidance', phone NICE publications on 0845 003 7783 or email [publications@nice.org.uk](mailto:publications@nice.org.uk) and quote:

- N2442 (quick reference guide)
- N2443 ('Understanding NICE guidance').

### Implementation tools

NICE has developed tools to help organisations implement this guidance (see [www.nice.org.uk/guidance/CG116](http://www.nice.org.uk/guidance/CG116)).

### Related NICE guidance

For information about NICE guidance that has been issued or is in development, see [www.nice.org.uk](http://www.nice.org.uk)

- Coeliac disease. NICE clinical guideline 86 (2009). Available from: [www.nice.org.uk/guidance/CG86](http://www.nice.org.uk/guidance/CG86)
- Diarrhoea and vomiting in children. NICE clinical guideline 84 (2009). Available from: [www.nice.org.uk/guidance/CG84](http://www.nice.org.uk/guidance/CG84)
- Atopic eczema in children. NICE clinical guideline 57 (2007). Available from: [www.nice.org.uk/guidance/CG57](http://www.nice.org.uk/guidance/CG57)
- Postnatal care. NICE clinical guideline 37 (2006). Available from [www.nice.org.uk/guidance/CG37](http://www.nice.org.uk/guidance/CG37)
- Inhaled corticosteroids for the treatment of chronic asthma in children under the age of 12 years. NICE technology appraisal guidance 131 (2007). Available from: [www.nice.org.uk/guidance/TA131](http://www.nice.org.uk/guidance/TA131)

### Updating the guideline

This guideline will be updated as needed, and information about the progress of any update will be available at

[www.nice.org.uk/guidance/CG116](http://www.nice.org.uk/guidance/CG116)

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