

Testing for food allergy in children and young people

NICE 'clinical guidelines' advise the NHS on caring for people with specific conditions or diseases and the treatments they should receive.

This booklet is about what a healthcare professional should look for when deciding whether to offer a child or young person tests for food allergy, and the steps to follow when making a diagnosis in the NHS in England and Wales. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence). It is written for parents and carers. However, it is recognised that many children and young people will want to know for themselves what the NICE guidance says. This booklet may be useful for them and for anyone with an interest in food allergy in children and young people.

The booklet is to help you understand how food allergy should be diagnosed in children and young people in the NHS. It does not describe food allergy or the tests or treatments for it in detail. Your child's healthcare professional should discuss these with you and your child. There are examples of questions you could ask throughout this booklet to help you with this. You can get more information from the organisations listed on page 13.



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The advice in the NICE guideline covers:

- Children and young people up to their 19th birthday who have symptoms or signs that could suggest food allergy.
- Children and young people who are at greater risk of developing a food allergy. For example, they may already have another condition linked with allergies such as asthma, atopic eczema (an allergy-related type of eczema that tends to run in families) or allergic rhinitis (a type of allergy that includes hay fever). Alternatively, they may have a parent, brother or sister with a food allergy or allergy-related condition.

It does not specifically look at:

- Children and young people who have a reaction to a food that is not caused by the immune system (for example, an intolerance to lactose, the main sugar found in dairy products).

If you think that your child's care does not match what is described in this booklet, please talk to a member of your child's healthcare team in the first instance.

Person-centred care

In the NHS, patients and healthcare professionals have rights and responsibilities as set out in the NHS Constitution (www.dh.gov.uk/en/Healthcare/NHSConstitution/index.htm). All NICE guidance is written to reflect these. Children and young people with a possible food allergy and their parents and carers (where appropriate) have the right to be involved in discussions and make informed decisions about their treatment and care with their healthcare team. Their choices are important and healthcare professionals should support these wherever possible. All children and young people and their parents and carers should be treated with dignity and respect.

To help children and young people, and their parents and carers, make decisions, healthcare professionals should explain the tests for food allergy. They should cover possible benefits and risks related to the personal circumstances of the child or young person. Children and young people, and their parents and carers, should be given relevant information that is suitable for them and reflects any religious, ethnic, or cultural needs they have. It should also take into account whether they have any physical or learning disability, sight or hearing problem or language difficulties. They should have access to an interpreter or advocate (someone who helps you put your views across) if needed.

For children under 16, their parents or carers will need to agree to their treatment, unless it is clear that they fully understand the treatment and can give their own consent.

When parents and carers are involved they should be able to discuss or review their child's care. As treatment progresses, or circumstances change, it is possible for children and young people (or, where

appropriate, their parents and carers) to change their mind about treatment or care.

Healthcare professionals should follow the Department of Health's advice on consent (www.dh.gov.uk/consent) and the code of practice for the Mental Capacity Act. Information about the Act and consent issues is available from www.publicguardian.gov.uk In Wales healthcare professionals should follow advice on consent from the Welsh Assembly Government (www.wales.nhs.uk/consent).

Care of young people who are moving from services for children to adult services should be planned according to guidance from the Department of Health ('Transition: getting it right for young people' available from www.dh.gov.uk).

In an emergency, if the person with parental responsibility cannot be contacted, healthcare professionals may give treatment immediately when it is in the child's best interests.

Food allergy

When the body's immune system reacts negatively to a particular food it is known as a food allergy. Food allergies can cause a wide range of symptoms, including skin reactions (such as a red itchy rash or swelling of the lips, face and around the eyes), digestive problems (such as stomach ache, vomiting or diarrhoea) and hay fever-like symptoms (such as sneezing and itchy eyes). Symptoms can appear suddenly, within minutes of eating the food, or can take hours or days to develop. Occasionally, severe symptoms can occur, such as swelling of the throat, hoarse breathing sounds, and sudden shortness of breath or wheezing. Food allergies are more common in children than adults because children often outgrow their allergy. The most common foods that children are allergic to are cows' milk, hens' eggs, peanuts, and tree nuts such as hazelnut and cashew.

If the body reacts negatively to a particular food but this reaction is not caused by the immune system, the condition is known as a 'food intolerance' (which is not covered in the NICE guideline).

What will happen when we see a healthcare professional?

If you are concerned that your child may have a food allergy you can talk to a healthcare professional (it could be your child's GP, health visitor or school nurse). They should ask you about your child's symptoms to see if food allergy could be a possible cause. They should ask if your child has had any of the following:

- Skin problems, such as reddening of the skin, an itchy nettle sting-like rash, swelling of the lips, face or around the eyes, or eczema.
- Problems with eating or their digestive system, such as reluctance to eat or feed, apparent stomach ache, vomiting, diarrhoea,

constipation or 'reflux' (where stomach acid leaks into the oesophagus, or gullet; in a baby this can cause excessive crying, back arching and frequent vomiting after feeds).

- Hay fever-like symptoms, including sneezing, itchy nose and/or eyes or a blocked nose.
- Sudden development of wheezing, cough, shortness of breath or difficult, noisy breathing. This is because of swelling of the throat or lower airway which can be an early sign of an uncommon reaction called 'anaphylaxis'. Anaphylaxis is a medical emergency and needs immediate treatment because in a small number of cases it can be fatal.

The healthcare professional should also ask whether your child often feels very tired and whether they have had any growth problems.

What happens if food allergy is suspected?

If food allergy might be causing your child's symptoms, your GP, or another healthcare professional who is trained to diagnose and assess food allergy, should ask some more detailed questions about your child's symptoms and medical history. Your child should not be offered allergy tests without being asked these questions first.

Questions about symptoms should include:

- how old your child was when they first started
- how quickly they develop
- how severe they are
- how long they last
- how often they happen
- where they usually happen, for example at school or at home

- whether the same symptoms happen each time your child eats a particular food
- how much of the suspected food your child needs to eat for symptoms to appear.

The healthcare professional should also ask whether your child has had any other conditions associated with allergies (such as asthma, eczema or allergic rhinitis) or whether they have a parent or sibling with one of these conditions or with a food allergy. They should ask what you think might be causing the symptoms, whether you have tried any treatments already, or have tried removing any foods from your child's diet and then reintroducing them.

Your healthcare professional should ask questions to help them understand your child's feeding history, for example whether they were breastfed or formula-fed and at what age they were weaned onto solid food. For children who are being breastfed, the healthcare professional should ask some questions about the mother's diet to check whether the child's symptoms could be related to exposure to certain foods through breast milk.

The healthcare professional should then physically assess your child for growth problems, signs that they may not be getting the nutrition they need from their food, or any other physical problems.

What happens next?

If your healthcare professional suspects that your child might have an allergy to one or more foods they should first give you and your child some information about food allergies (if possible in a form that your child can understand). This should include the type of allergy they think it could be (see box on page 10), whether there is any risk of your child

Some tests may not be suitable for your child, depending on your child's individual circumstances. If you have questions about specific tests covered in this booklet, please talk to a member of your healthcare team.

having a severe allergic reaction, and how the allergy can be diagnosed.

They should also give you information about where to get some support for you and your child, including how to contact support groups.

If your child has a suspected allergy to cows' milk, you should be offered advice about what type of hypoallergenic formula to use for a formula-fed baby, or what type of milk substitute to use for an older child. Breastfeeding mothers should be given advice about what foods to personally avoid. You should be offered help from a dietitian if you need it.

Questions that you or your child might like to ask your healthcare professional

- Could my child's symptoms be caused by food allergy?
- Is it possible to confirm my child's food allergy?
- What will having food allergy mean for my child?
- Are there any support organisations in our local area?

Diagnosing your child's food allergy

Your healthcare professional should use the information about your child's symptoms and medical history to decide whether allergy tests are appropriate and, if so, which type of test would be suitable. This depends partly on the type of allergy they suspect.

Types of food allergy

There are two types of food allergy. The type depends on whether or not the allergic reaction is triggered by an antibody called **immunoglobulin E** (usually called **IgE**). These antibodies are the chemical signals that set off an acute (sudden) allergic reaction.

- In an **IgE-mediated food allergy**, reactions usually happen within a few minutes of eating the food. Common symptoms are reddening of the skin, an itchy rash, and swelling of the lips, face or around the eyes. A rare but more serious reaction is anaphylaxis (described on page 6).
- The other type of food allergy is called a **non-IgE-mediated food allergy**. This type of allergy is not caused by IgE antibodies (it is usually because of cell reactions in the immune system). Non-IgE-mediated reactions often appear several hours or days after the food is eaten and can cause symptoms over a longer period, such as eczema, diarrhoea, constipation and, in more severe cases, growth problems.

Sometimes children have a **mixed** reaction which causes both IgE and non-IgE symptoms and signs (for example, this happens in some children with cows' milk allergy).

Diagnosing IgE-mediated food allergy

If your healthcare professional thinks your child has an IgE-mediated food allergy they should offer your child either a blood test or a skin prick test. In a skin prick test, a small drop of liquid containing a suspected food protein is placed on the forearm, and then a tiny prick is made in the skin through the drop to see if a reaction happens. Your

Your healthcare professional should consider your child's symptoms, medical history and assessment as well as the results of their tests when deciding if they have a food allergy.

healthcare professional should explain exactly what these tests involve and talk to you about which test you and your child would prefer. Your child should not be offered a test called an atopy patch test without being seen by a specialist. You should not be advised to try a procedure called an oral food challenge, or be offered this procedure, without seeing a specialist if your child has suspected IgE-mediated food allergy.

Your healthcare professional should consider your child's symptoms, medical history and assessment as well as the results of their allergy tests when deciding if they have a food allergy.

Diagnosing non-IgE-mediated food allergy

If your healthcare professional thinks your child has a non-IgE-mediated food allergy they should discuss with you trying avoidance of the food for a trial period (usually between 2 and 6 weeks) and then reintroducing the food. This is known as an elimination diet. It may involve avoiding just one food, or several foods. If your child's symptoms improve or disappear when a food is avoided, but then return when that food is eaten again, it can confirm the allergy.

You and your child should be offered help and advice before you start an elimination diet. This should include how to understand food labels to make sure your child doesn't eat the suspected food by mistake, what foods they can eat instead to make sure they have a healthy diet, and how to reintroduce the food safely. Your healthcare professional should also take into account whether your child's culture or religion affects foods that they can or cannot eat.

You should be offered support from a dietitian if you need it, to help you start the elimination diet and check how you are managing.

Alternative tests for food allergy

Some complementary or alternative health practitioners offer tests for food allergy. These can include tests called applied kinesiology, hair analysis, vega tests and serum-specific IgG antibody tests. Your healthcare professional should not offer your child these tests because there is no evidence that they can reliably diagnose food allergy.

When your child might need to see a specialist

There are some situations where your child might need to see a specialist (an expert in diagnosing and treating allergies). These include if an elimination diet has been tried and it has not worked, if your child has been judged to have had a severe allergic reaction or if they have asthma or severe atopic eczema as well as allergies to one or more foods. You may also be referred to a specialist if the results of your child's allergy tests are negative but your healthcare professional still suspects that your child has a food allergy, or that they are allergic to more than one food.

Questions that you or your child might like to ask your healthcare professional

- What type of food allergy might my child have?
- Please give me more details about the tests my child may have.
- Will allergy tests be painful or distressing for my child?
- How soon can my child be tested and how long will it take to get the results?
- If we are trying an elimination diet, how can I make sure my child has a healthy diet?
- Do I have to avoid the food(s) completely – even traces?
- What if the allergy tests are negative but my child still has symptoms?
- If we are being referred to a specialist can you explain why?

More information

The organisations below can provide more information and support for children and young people with food allergy. NICE is not responsible for the quality or accuracy of any information or advice provided by these organisations.

- Allergy UK, 01322 619898
www.allergyuk.org
- The Anaphylaxis Campaign, 01252 542029
www.anaphylaxis.org.uk

The organisations below can also provide more information and support for children and young people who have eczema.

- National Eczema Society, 0800 0891122
www.eczema.org
- Nottingham Support Group for Carers of Children with Eczema, 0115 926 9996, www.nottinghameczema.org.uk

NHS Choices (www.nhs.uk) may be a good place to find out more. Your local patient advice and liaison service (usually known as 'PALS') may be able to give you more information and support. You should also contact PALS if you are unhappy with the treatment you are offered, but you should talk about your care with a member of your healthcare team first. If your local PALS is not able to help you, they should refer you to your local independent complaints advocacy service. If you live in Wales you should speak to NHS Direct Wales for information on who to contact.

About NICE

NICE produces guidance (advice) for the NHS about preventing, diagnosing and treating medical conditions. The guidance is written by independent experts including healthcare professionals and people representing patients and carers. They consider the evidence on the condition and treatments, the views of patients and carers and the experiences of doctors, nurses and other healthcare professionals. Staff working in the NHS are expected to follow this guidance.

To find out more about NICE, its work and how it reaches decisions, see www.nice.org.uk/AboutGuidance

This booklet and other versions of the guideline aimed at healthcare professionals are available at www.nice.org.uk/guidance/CG116

*You can order printed copies of this booklet from NICE publications (phone 0845 003 7783 or email publications@nice.org.uk and quote reference N2443). The NICE website has a screen reader service called *Browsealoud*, which allows you to listen to our guidance. Click on the *Browsealoud* logo on the NICE website to use this service.*

We encourage NHS and voluntary organisations to use text from this booklet in their own information about food allergy.

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