Kiwifruit Allergy: The Facts

Reports of allergy to kiwifruit have become increasingly common over the past 30 years and severe reactions occur quite frequently, especially among children.

Also known as the Chinese gooseberry, the kiwifruit started to be grown commercially in New Zealand in the 1930s but it wasn't until the late 1960s that it became part of the UK diet. Reports of kiwifruit allergy in the UK started to become common in the 1980s, mainly among adults, and then among children in the 1990s.

This Factsheet aims to answer some of the questions which you and your family might have about living with kiwifruit allergy. Our aim is to provide information that will help you to avoid kiwifruit, minimise risks and know how to treat an allergic reaction should it occur.

If you know or suspect you are allergic to kiwifruit, the most important message is to visit your GP and seek a referral to an allergy specialist, even if your symptoms have so far been mild.

Throughout the text you will see brief medical references given in brackets. More complete references are published towards the end of this Factsheet.

Symptoms of kiwifruit allergy

There are two types of kiwifruit allergy.

1. Some people become allergic after direct contact with the kiwifruit itself, such as eating it. It is even possible that direct skin contact with the flesh of the fruit could cause that person to become allergic if their skin has been broken (such as through eczema).

In this type of kiwifruit allergy, there can be a variety of symptoms. Mild symptoms may include nettle rash anywhere on the body, or a tingling or itchy feeling in the mouth.

More serious symptoms could include:

- Swelling in the face, throat and/or mouth
- Difficulty breathing
- Severe asthma
- Abdominal pain, nausea and vomiting

In a few cases there is a dramatic fall in blood pressure (anaphylactic shock). This is where the person may become weak and floppy and may have a sense of something terrible happening. This may lead to collapse and unconsciousness.

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2. The second type of kiwifruit allergy comes under the heading "pollen food syndrome". Those affected become allergic to tree pollen first of all and later develop symptoms to kiwifruit as well. This is because the proteins in the fruit are similar in structure to those in the pollen. A person with this type of kiwifruit allergy will experience immediate tingling, swelling or itching in the lips, mouth or throat, every time they eat raw kiwifruit (Mari et al., 2005). In the vast majority of people with this allergy, the symptoms are mild. This condition is particularly common among UK adults (Skypala et al., 2011), whereas children are more likely to suffer the more severe symptoms described in category 1, above.

How can I get a diagnosis of kiwifruit allergy?

We believe it is vital for **everyone** with allergy to kiwifruit to obtain proper medical advice. See your GP as soon as possible if you know or believe you are allergic to kiwifruit.

Some GPs have a clear understanding of allergy, but allergy is a specialist subject so it is likely your doctor will need to refer you to an allergy clinic. Your GP can locate an allergy clinic in your area by visiting the website of the British Society for Allergy and Clinical Immunology (www.bsaci.org).

Once you get a referral, the consultant will discuss your symptoms with you in detail as well as your medical history. The results of skin prick tests and blood tests will also help the specialist form a clear picture, although these are only partially helpful. Using fresh kiwifruit in skin prick testing is thought to be more reliable than using the standard solutions (Lucas et al., 2004). Before your appointment you might ring and find out if fresh kiwifruit will be available.

Doctors cannot easily determine whether a food allergy is mild or severe. However, there may be certain clues. For example, the severity of the reaction you suffered and the amount of kiwifruit that caused it are important factors. If you have reacted to a very small amount of kiwifruit, this suggests your allergy is probably severe.

Also, the presence of asthma – especially when poorly-controlled – has been shown to be a major risk factor for the occurrence of more severe allergic reactions.

Treating symptoms

If your allergy specialist is confident your symptoms will always be mild, you may be prescribed an antihistamine.

If your kiwifruit allergy is of the more severe type, you are likely to be prescribed an adrenaline auto-injector for self-use in an emergency. If you are prescribed an auto-injector, it should be available at all times – with no exceptions. After an adrenaline injection is used, an ambulance should be called immediately as symptoms may return after a short period and more than one injection of adrenaline may be required.

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Anaphylaxis Campaign
Supporting people at risk of severe allergies

This information has been produced following the principles of the former NHS Information Standard

If you are prescribed an adrenaline auto-injector, you will need to know how and when to use it. Ask your GP or allergist for advice. You can also find help on the website relevant to the auto-injector you carry.

Emergency treatment of anaphylaxis – what injectors are available?

Three kinds of pre-loaded adrenaline injection devices – Emerade®, EpiPen® and Jext® – are available on prescription in the UK for those thought to be at risk of a severe reaction. If you carry an auto-injector it should be available to you at all times – with no exceptions. Visit the website of the auto-injector you carry:

- Emerade: www.emerade-bausch.co.uk
- EpiPen: www.epipen.co.uk
- Jext: www.jext.co.uk

If you do not have an adrenaline auto-injector and suffer a severe allergic reaction dial 999 immediately.

Allergies to other foods and substances

Some people with kiwifruit allergy may also react to natural rubber (latex), avocado or banana (Möller et al., 1998). This is something known as cross-reactivity – where the proteins in one food are similar in structure to those in another. If you have kiwifruit allergy and react to some other food or substance, you should discuss this with your allergist.

Avoiding kiwifruit

If you have a food allergy, strict avoidance of the culprit food is the first line of defence. Read food ingredient lists carefully every time you shop, even if you have bought a product many times before. Ingredient lists sometimes change.

Kiwifruit may be found in a wide range of products including jams, fruit yoghurts and desserts. Be particularly careful of smoothies and fruit drinks. Kiwifruit may be an ingredient but not necessarily mentioned in the name of the product.

There are unusual places where kiwifruit can be found. For example, we noticed it was an ingredient in an Easter egg moulding kit.

When eating out, you should question staff very directly, asking whether kiwifruit is an ingredient of the food you have chosen or whether there is a risk of cross-contamination. Don't be afraid to ask the waiter to check with the chef. There are particular pitfalls to watch out for. For example, a mixed fruit salad may include small pieces of kiwifruit that could go unnoticed.

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Apart from the familiar green kiwifruit, there are other varieties on the market. Results of a Swiss study suggest that some varieties may be more likely than others to trigger severe reactions (Le et al., 2011). However, research on this is incomplete. Our advice to people with kiwifruit allergy is to play safe and avoid all varieties.

It is worth noting that while the variety known as Zespri gold is easily identifiable by its gold colour and similar shape to kiwifruit, in a fruit salad it might be mistaken for melon or some other tropical fruit.

There is a shortage of information about the risk from kiwi berry, but we advise people with kiwifruit allergy to play safe and avoid it.

Cross-contamination can be a risk when food is being prepared. A report in the medical literature mentions a case where a severe allergic reaction was triggered by tiny amounts of kiwifruit left on a knife that was then used to cut a strawberry dessert served in a restaurant (Mempel et al., 2003). When you eat out, tell the staff that even a very small amount could cause a reaction.

In some regions of the world, kiwifruit is used to glaze pâté and tenderise meat. This may not be a common practice in the UK, but it would be wise to check when you eat out.

The key messages are:

A diagnosis of a food allergy can be daunting but by thinking ahead and employing coping strategies, people affected can get on with their lives.

- Get medical advice. See your GP in the first instance
- Always be vigilant when food is around
- Check food labels
- Be proactive when eating out
- Carry prescribed medication everywhere
- If you have been prescribed an adrenaline auto-injector, learn how and when to use it
- Ensure that asthma is well managed. See your GP about this

Links

Learn more about anaphylaxis and adrenaline.

References

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Reviewers

The content of this Factsheet has been Peer Reviewed by **Dr Isabel Skypala**, Clinical Lead for Food Allergy, Royal Brompton and Harefield NHS Foundation Trust. Disclosure: Dr Skypala was a co-author of one of the studies quoted above.

Disclaimer – The information provided in this leaflet is given in good faith. Every effort has been taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for good medical advice provided by a medical professional.

About the Anaphylaxis Campaign: *Supporting people with severe allergies*

The Anaphylaxis Campaign is the only UK wide charity to exclusively meet the needs of the growing numbers of people at risk from severe allergic reactions (anaphylaxis) by providing information and support relating to foods and other triggers such as latex, drugs and insect stings. Our focus is on medical facts, food labelling, risk reduction and allergen management. The Campaign offers tailored services for individual, clinical professional and corporate members.

Visit our website http://www.anaphylaxis.org.uk and follow us on Twitter @Anaphylaxiscoms.

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