

Lipid Transfer Protein Allergy Syndrome

Previous in Spain and Italy, now in the UK

Patient leaflet; <https://www.cuh.nhs.uk/patient-information/lipid-transfer-protein-ltp-allergy-syndrome-patient-information-leaflet/#:~:text=People%20at%20high%20risk%20of,should%20also%20carry%20their%20inhalers.>

Your quick guide to: Lipid Transfer Protein Allergy

What are lipid transfer proteins?

Lipid transfer proteins are proteins found in plant based foods including fruit, vegetables, nuts and cereals and they are designed to protect the plant. In lipid transfer protein allergy, you become sensitised to the proteins in these plant foods and can have allergic reactions. Most lipid transfer proteins are found in the skin, pips and seeds of the food.

Who does it affect?

Lipid transfer protein allergy usually affects adults, although we do not know how many people are affected in the UK. It is thought to be rare in children.

What foods can cause symptoms?

Although any fruit, vegetable, nut seed or cereal has the potential to cause an allergic reaction, the most common plant foods triggering reactions are apples, grapes, peanuts, hazelnuts, almonds, walnuts, dried fruit and tomatoes. Some other foods may also cause symptoms such as barley, grapes, lettuce, cabbage, mustard, peaches and other stone fruit. Reactions to foods tend to be very individual and you may only react to one or two.

Lipid transfer proteins are not broken down by the digestive system, or by heating or processing the food, so many people with Lipid transfer protein allergy cannot eat the plant food in any form, whether it is raw, heated, juiced, dried, canned, fermented or crystallized.

An example of a lipid transfer protein allergy is grape and allergic reactions can involve all food products containing grape. This means that avoidance advice may need to include avoidance of all forms of grape, including raisins, grape juice, wine vinegar and wine.

How will I know if it is allergy - what are the symptoms?

Symptoms usually come on within 15-30

minutes after eating the plant food and can include the following:

- Swelling of the lips, mouth, face, eyes and throat
- A red raised itchy skin rash - looks like nettle rash (clinically called urticaria) Download urticaria Factsheet.
- Digestive symptoms - vomiting, stomach ache and pain
- Breathing difficulties which can include wheezing, cough, or worsening of asthma
- Occasionally, a severe and potentially life-threatening allergic reaction (anaphylaxis) can occur, with symptoms which include feeling faint, dizzy, difficulty in talking and breathing and collapse. Download anaphylaxis Factsheet.

Are there any other factors that can contribute to an allergic reaction?

It is important to understand that, in addition to eating the food, other factors such as exercise, alcohol and pain relief medication (including 'over the counter anti-inflammatory medication, such as ibuprofen) can trigger an allergic reaction. You may find that you can eat the plant food, for example tomato, without experiencing any symptoms. However, when you eat tomato and take pain relief such as ibuprofen, you may find that you do experience a reaction.

Often reactions occur within minutes of eating the plant-based food, but where a co-factor such as exercise, medication or stress triggers the allergic reaction, this may only occur when the co-factor is present and could be some time after you have eaten the food. Manage and treat your allergy, including what to do in the event of an allergic reaction, when to get help and how to take or administer medication.

If you are unsure of what may be causing your allergic reactions it always a good idea

Key facts:

The most common foods are **apples, hazelnuts, almonds, walnuts, peanuts, dried fruit** and **tomatoes**, with most lipid transfer proteins found in the skin, pips and seeds of the food.

In addition to eating the food, other factors such as **exercise, alcohol** and **pain relief medication** can trigger an allergic reaction.

If you are unsure of what may be causing your allergic reactions, keep a **symptoms diary** that you can discuss with your healthcare professional

Allergy UK Helpline

Mon-Fri, 9am-5pm:

Call: 01322 619 898

Email: info@allergyuk.org

Visit us at:
allergyuk.org

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to keep a symptoms diary as this can help when you are discussing your symptoms with your healthcare professional.
[Download our Symptoms Diary.](#)

What should I do if I suspect I may have lipid transfer protein allergy – Getting a diagnosis

Lipid transfer protein allergy is not something you can diagnose yourself and sometimes it can be difficult to work out which plant foods you may be reacting to. There are also other forms of allergy to plant foods such as [pollen food syndrome](#) that do not require the same level of avoidance as lipid transfer protein allergy, but may involve symptoms or foods that are similar.

It is important to only avoid the foods that have been identified to cause a reaction, as reactions to foods are very individual. It can be difficult to find out what plant foods you are allergic to and if you suspect you have an allergy to a plant food it is best to seek advice from your healthcare professional who may refer you to an allergy service for more specialist care, especially if you have experienced a severe reaction.

How can I manage my lipid transfer protein allergy?

Where a lipid transfer protein allergy is confirmed, you will usually be advised on complete avoidance of the plant food causing the allergic reactions – this may include avoidance of all forms of the plant food including raw, cooked and processed forms of the food. Your healthcare professional should agree a management plan with you. This will be your guide to helping you to manage and treat your allergy, including what to do in the event of an allergic reaction, when to get help and how to take or administer medication.

Your healthcare professional will advise on any medication required to manage your allergy and, if necessary, prescribe [adrenaline auto-injectors](#) if you have had a severe allergic reaction due to your allergy. You may also be referred for more specialist assessment and you may also be referred to a dietitian for advice, especially if you are excluding large amounts of fruits or vegetables from your diet.

Further support

- Allergy UK website: www.allergyuk.org
- Allergy UK Helpline: Monday to Friday, 9am to 5pm 01322 619 898 / info@allergyuk.org

Clinical contributions:

Allergy UK Clinical Team

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Allergy UK Health Advisory Board

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Additional Resources / References

Oral Allergy Syndrome

<https://www.allergyuk.org/resources/oral-allergy-syndrome-pollen-food-syndrome-factsheet/>

Anaphylaxis and Severe Allergic Reactions

<https://www.allergyuk.org/resources/anaphylaxis-and-severe-allergic-reaction-factsheet/>

This Factsheet was prepared by Allergy UK's Clinical Team and made possible by the support of ThermoFisher Scientific.

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