

## Oral Allergy Syndromes

People affected by oral allergy suffer immediate symptoms in the lips, mouth and throat when they eat certain kinds of fresh fruit, raw vegetables or nuts. This is due to a secondary kind of food allergy, and the primary cause is likely to be hay fever (allergy to pollen) or latex allergy (allergy to natural rubber).

### Pollen Food Syndrome

Many hay fever sufferers who are sensitive to the proteins in pollen also react to similar proteins in fruits or vegetables. This usually only happens when the food is eaten raw. The condition is known as the *pollen food syndrome*.

Most people with this condition will suffer from hay fever during the pollen season. Because the proteins in certain pollens are similar to those in some foods, the antibodies created mistake the food for pollen and this causes a mouth reaction when the food is eaten at any time of the year.

Symptoms usually come on immediately and they may include:

- Swelling or itching of lips, tongue, mouth, and ears.
- Itching in the throat. Throat swelling is possible, although this is unlikely to prove serious.
- Symptoms in the oesophagus (gullet) or stomach, including pain, nausea and even vomiting.

Most people are unlikely to ever have a severe reaction and mild reactions are unlikely to get worse over time. However, medical advice should be sought in all cases. This is particularly important if the swelling causes difficulty in swallowing or breathing, or if the symptoms include asthma.

The condition is more likely to develop in people who have had pollen allergy for a long time. It is more frequently seen in adults than children, although it is becoming commoner in children, as hay fever develops in younger age groups.

Different types of pollen can cause the problem, but *the most common in the UK is birch pollen*. This causes hay fever symptoms from the end of March until the end of May. More than half of the people who are allergic to birch pollen will suffer mouth symptoms due to pollen food syndrome. Many people may not realise they have the condition as in its mildest form people may only experience a sensation in the lips or tongue after eating one of the implicated fresh fruits or raw vegetables.

The following foods, when eaten fresh or raw, are the commonest foods that cause the symptoms of pollen food syndrome:

<b>Almond</b>	<b>Green pea</b>	<b>Peach</b>
<b>Apple</b>	<b>Hazelnut</b>	<b>Peanut</b>
<b>Apricot</b>	<b>Kiwi fruit</b>	<b>Pear</b>
<b>Bean sprouts</b>	<b>Jack fruit</b>	<b>Plum</b>
<b>Bell pepper</b>	<b>Mango</b>	<b>Raspberry</b>
<b>Carrot</b>	<b>Melon</b>	<b>Soya</b>
<b>Celery</b>	<b>Nectarine</b>	<b>Tomato</b>
<b>Cherry</b>	<b>Parsley</b>	<b>Walnut</b>

Unprocessed soya (for example soya milk, tofu) can sometimes cause severe symptoms. Some patients also react to raw legumes and some to fresh herbs and spices. Some sufferers report itchy hands, nose or eye symptoms when handling raw potatoes, carrots or parsnips.

Grass pollen sometimes causes pollen food syndrome, and people who are allergic to both birch and grass pollen are likely to develop symptoms with a wider range of foods. Weed pollens such as mugwort can also act as the trigger.

### Latex Food Syndrome

Oral allergy also affects some people who suffer from latex allergy. This is caused by a reaction to the proteins found in natural latex, the raw material from which rubber is made. Latex allergy is particularly common amongst people who come into regular contact with soft latex products (e.g. latex gloves) such as healthcare workers.

Because latex proteins are similar food proteins, people who are allergic to latex might also react to these foods. The condition is known as the *latex food syndrome* and these foods are often involved.

<b>Almond</b>	<b>Fig</b>	<b>Papaya</b>
<b>Avocado</b>	<b>Hazelnut</b>	<b>Passion fruit</b>
<b>Banana</b>	<b>Kiwi fruit</b>	<b>Peach</b>
<b>Cherry</b>	<b>Mango</b>	<b>Pineapple</b>
<b>Chestnut</b>	<b>Melon</b>	<b>Plum</b>

## Diagnosis and Management

The correct identification and avoidance of the culprit food or foods must be the main aim. Previous experience of what has happened when eating certain foods is the most important evidence. Skin and blood tests may help a doctor to identify the occasional patient for whom there is a risk of a severe reaction and who will therefore be advised to carry adrenaline injection as a precaution.

Desensitisation treatment for these conditions is not yet available, although it may become available in the future.

## Dietary Management

It does not necessarily follow that all the foods of a particular group will cause trouble for someone who reacts to one or two of them. Unless you are advised otherwise, only the foods that have caused symptoms need to be avoided. But do remember that sensitivities to other foods in the same group might develop in the future.

When trying a fresh fruit or raw vegetable for the first time, it is best to be cautious. Rub the lip with a small amount or chew a tiny portion and spit it out. Wait for fifteen minutes to see if any symptoms develop.

Once you are sure that a particular food is causing symptoms (and especially if tests confirm the allergy) it is important to exclude it in future.

## What fruits and vegetables CAN I eat?

The fruit and vegetable proteins causing an oral allergy syndrome reaction are easily destroyed by heat. This means that cooked or heat-treated forms of the food are usually tolerated and can normally be eaten without symptoms. You might try:

- Canned and stewed fruit such as tinned peaches, pineapple, stewed or baked apples
- Longlife (UHT) fruit juices and possibly other carton juices
- Fruit pies, crumbles and puddings with fruits such as apples, pears or plums
- Jams such as strawberry jam, raspberry jam
- Dried fruit such as apricot, banana or mango
- Canned, boiled, steamed or roasted vegetables

Microwaving the fresh fruit for a short time (from 20 to 40 seconds) may be enough to destroy the allergy-inducing protein. If you decide to try this, remember to test a small amount (see above) to see if it has

worked. The fruit can then be refrigerated if you want to eat it cold. Peeling a fruit may also help as the troublesome proteins are often located just under the skin.

Some individuals do react to cooked fruits and vegetables although this is more likely in the case of a primary food allergy. It is important that this is investigated further.

## Healthy Fruit and Vegetable Intake

If you react to many kinds of fruits and vegetables it can be a struggle to reach the recommended *five a day*\* portions of fruit and vegetables. Fruits and vegetables contribute important nutrients for health such as vitamins, minerals, antioxidants and fibre. Most of these nutrients will still be present after cooking. Vitamin C is the nutrient at risk if fresh fruits and vegetables are drastically reduced in the diet because its content is reduced by cooking. So try to include a good vitamin C source every day such as citrus fruit (orange, grapefruit and clementines) and raw or cooked green vegetables. Both of these groups are usually well tolerated by oral allergy sufferers.

\*For *five a day* advice visit [www.nhs.uk/livewell/5aday](http://www.nhs.uk/livewell/5aday)

## Nut Allergy – how serious?

Nut proteins that cause reactions amongst oral allergy sufferers may also be destroyed by heat. This means that oral allergy sufferers may react to raw uncooked nuts but not react to roasted or cooked nuts. However people may react to both uncooked and roasted or cooked nuts. As some types of nut allergy can be very severe, people who suspect that they are nut allergic should avoid nuts completely until they have been investigated and advised by a doctor or dietitian.

## Primary Food Allergy

Allergic reactions to fruits, nuts and vegetables are not always related to pollen or latex, in some cases, there is a primary allergy to the food itself. These reactions can be much more severe. Symptoms in the mouth can also be caused by foods other than raw fruit and vegetables. Examples are egg, shellfish and fish. This is not an oral allergy syndrome and these allergies may be more serious.

Any reaction to a food should be reported to your GP. If your GP is unable to tell you what type of food allergy is the problem, you are likely to need further assessment at an allergy clinic.

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