



## Oral Allergy Syndrome

One little girl with severe ragweed allergy used to complain to her father that eating melon, banana, cucumber and tomato made her throat and inner ears itch. He thought it was just her imagination.

However, it is now recognized that symptoms such as these are caused by a type of food-related allergic reaction called Oral Allergy Syndrome (OAS). One in three adults and children who are allergic to inhaled pollens (tree, grass and ragweed pollens) and who usually have seasonal allergic rhinitis (hay fever) may experience symptoms after eating certain raw vegetables, nuts, seeds, or fresh fruit.

### Food and Pollen Cross-reactions

OAS is caused by nearly identical allergens that are present in both fresh food and pollens. These allergens are called cross reacting allergens. The foods that are most commonly associated with OAS are listed below. The symptoms of OAS occur where the food touches the mouth, which results in itching or swelling of the lips, tongue, back of the throat, or roof of the mouth.

Because the allergens that are responsible for these symptoms are usually destroyed by heat from cooking procedures, it is best to eat cooked, baked or microwaved fruits or vegetables. Some patients find relief from symptoms from peeling the skin from fruit or vegetables which they consume. Canned foods may also limit a reaction. For example, a person may experience itching of the tongue and roof of the mouth when eating a fresh apple, but have no problems after consuming apple pie or apple sauce.

Specific cross-reactions have been identified between ragweed pollen and banana, cucumber, melons (ie: cantaloupe, watermelon and honeydew), zucchini, sunflower seeds, dandelions, chamomile tea and Echinacea. Cross-reactions between birch pollen and peach, apple, pear, kiwi, plum, coriander, fennel, parsley, celery, cherry, carrot, hazelnut and almonds have also been found. Those with allergies to grass may have a reaction to peaches, celery, tomatoes, melons and oranges.

### Diagnosis and Treatment

Your Allergist can make the diagnosis of OAS most often from a complete clinical history. If skin testing with commercial extracts of the suspected fruits and vegetables or blood testing for food-specific IgE (allergic) antibodies produces negative results, skin tests done with fresh fruits or raw vegetables will usually be positive. Skin testing to the cross-reacting pollens will also be positive.

The natural history of patients with OAS has not been well studied. Some researchers report that both allergic rhinitis (hay fever) symptoms and OAS symptoms go away if the affected individual receives immunotherapy injections with extracts of the cross-reacting pollens. Patients with OAS also report that some improvement occurs with the use of regular doses of antihistamines.

However, this form of treatment is not advised in patients with any history of systemic (affecting the entire body) reactions to foods. In patients who experience not only oral symptoms but serious systemic reactions to food, identifying the responsible food and strictly avoiding that food is the key to successful long-term management.

While Oral Allergy Syndrome is not a typical food allergy, it is a food-related allergic reaction. It may improve with treatment of the underlying allergic rhinitis, but patients with persistent bothersome symptoms should avoid raw forms of the offending foods, especially during pollen season. More severe reactions require urgent evaluation by an Allergist.

Some foods which have been linked to Oral Allergy Syndrome include

#### Vegetables:

- carrots, celery, parsley, potatoes, tomatoes

#### Seeds & Nuts:

- fennel seed, hazelnut (filbert), sunflower seeds

#### Fruits:

- apples, apricots, bananas, cantaloupes, cherries, honeydew melon, oranges, peaches, pears watermelon

If you have questions about Oral Allergy Syndrome, feel free to contact our office. One of our staff would be happy to answer your questions about OAS and discuss different treatment options offered at Allergy & Asthma Clinics of Ohio.