



# Celery Allergen Fact Sheet

## About celery

Native to the Mediterranean but grown commercially worldwide, celery is a vegetable with crisp succulent stalks and leaves.<sup>1</sup> Although it's made up of 95 percent water with only 16 calories per 100 grams, celery is thought to have anti-inflammatory benefits.<sup>1,2</sup> Celery stalks and bulbs (aka tubers, celeriac) are consumed raw and cooked while celery seeds (aka celery salt) can be used as a spice and within spice mixtures in a multitude of foods. Overall, celery sensitization was observed in 6.3 percent of the general population in 2014.<sup>3</sup> However, this figure is significantly elevated in Switzerland where roughly 40 percent of food allergy patients are allergic to celery root.<sup>4</sup>

## Are there other allergens I could be sensitized to?\*

Some people with celery allergy may also experience symptoms when eating other seemingly unrelated foods. This is called cross reactivity and occurs when your body's immune system identifies the proteins, or components, in different substances as being structurally similar or biologically related, thus triggering a response. The most common cross reactivities with celery include cherries, peaches, hazelnuts, peanuts, and carrots.<sup>3</sup>

If you experience an itchy mouth or throat after eating celery or other related fresh fruits or raw vegetables, you may suffer from oral allergy syndrome (OAS), sometimes called pollen food allergy syndrome (PFAS). This condition is also caused by your immune system's reaction to similar proteins, or components, found in plant foods and tree pollens. It is quite common, with up to 25 percent of children with allergic rhinitis (i.e., hay fever) also suffering from OAS when eating fruits or vegetables.<sup>9</sup> Common pollen allergies that could cause OAS when eating celery include birch and mugwort.<sup>3</sup>



## HOW DO I KNOW IF I'M ALLERGIC?\*

Together with your symptom history, skin-prick testing or specific IgE blood testing can help determine if you are allergic to a particular allergen. If you are diagnosed with an allergy, your healthcare provider will work with you to create a management plan.

Please note that allergies can change over time, and 10 to 20 percent of children with peanut and tree nut allergies may outgrow them.<sup>10</sup>

## COMMON SYMPTOMS

Celery allergy can range from mild to severe and may vary over time, resulting in mild symptoms during one episode and severe symptoms in another. Although food allergy symptoms can start a few minutes to several hours after ingestion, most begin within two hours.<sup>3,5</sup> Symptoms may involve the skin, gastrointestinal tract, cardiovascular system, and respiratory tract, and may include one or more of the following:<sup>5,6</sup>

- **Abdominal pain, diarrhea, nausea, vomiting, stomach cramps**
- **Hives (allergic urticaria), itching, eczema**
- **Wheezing, nasal congestion, shortness of breath, repetitive cough**
- **Shock, circulatory collapse**
- **Tight, hoarse throat, trouble swallowing**
- **Pale or blue skin coloring**
- **Dizziness, lightheadedness, fainting, weak pulse**
- **Anaphylaxis**

Symptoms may also include the following, which are associated with oral allergy syndrome (OAS), aka pollen food allergy syndrome (PFAS):<sup>7</sup>

- **Itchy mouth and hives on the mouth**
- **Scratchy throat**
- **Swelling of the lips, mouth, tongue, and throat**
- **Itchy ears**

Celery also may cause various skin reactions in allergic individuals. While ingestion may cause generalized sunlight sensitivity, skin that has come into direct contact with celery can blister as a result of sun exposure. In addition, allergic contact dermatitis (aka eczema), acute urticaria (aka hives), skin swelling, and anaphylaxis have been reported after ingestion of or direct contact with celery.<sup>1</sup>



## IS THERE A RISK FOR A SEVERE EVENT?

Because food allergic reactions are unpredictable and symptoms range from local to systemic, it is recommended that an epinephrine prescription be considered for any patient with an IgE-mediated food allergy.<sup>10</sup>

If you have asthma, you may face a higher risk of severe celery reactions, particularly if your asthma is poorly controlled.<sup>8</sup>

### Where is celery found?

Celery stalks and bulbs (aka tubers, celeriac) are often consumed raw or cooked.<sup>3</sup> Meanwhile, celery seeds (aka celery salt) can be used as spices and within spice mixtures, and they're found in a variety of foods, such as soups, stocks, tomato juice, stews, sauces, bouillons, and seasonings.<sup>3,8</sup> Other possible sources of celery include cured bacon, marmite, salads, and potato chips (crisps).<sup>8</sup> In addition, celery seed oil can be employed as a food ingredient or used in cosmetics.<sup>3</sup> Those allergic to raw celery should also avoid celeriac root, which is frequently eaten in Europe, and celery powder, which is often used in spice mixtures, soups, salad dressings, and broths.<sup>4,8</sup>

### Do I need to avoid all forms of celery?

Celery consists of different types of proteins that all have different characteristics that may be associated with varying risk of causing severe allergic reactions. Some people with celery allergy may be able to eat celery if it is extensively heated (cooked), as high temperatures break down the causative proteins. For another patient, celery should be avoided completely, as it could potentially cause a severe event, also called anaphylaxis. Your specific risk profile depends on which proteins you are allergic to.<sup>3</sup>

Knowing the proteins, or components, within each allergen that are triggering your symptoms can help guide your management plan. With that in mind, and based on your symptom history, your healthcare provider may suggest something called a specific IgE component test, which can help reveal other pollens and foods you may react to.<sup>3</sup>

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### Already have your specific IgE component test results?\*

Your component test results will include the name of the components (a series of letters and numbers and/or name). Your healthcare provider will likely review the results with you, but here you'll find an at-a-glance breakdown you can use as a reference. Simply match the component names to the list below to see what they mean in terms of symptom management.<sup>3</sup>

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- Usually associated mild symptoms, such as oral allergy syndrome (OAS).
- Present in all pollens and plant foods, associated with cross reactions, typically to birch pollen.
- Sensitive to heat and digestion, and cooked foods are often tolerated.

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- Indicates that symptoms may be caused by pollen from mugwort, ragweed, sunflower, or feverfew pollen due to cross reactivity.
- Mugwort pollen allergen immunotherapy may be considered.

#### MUXF3 (CCD)

- Positive specific IgE for celery in combination with MUXF3 CCD (Cross-reactive Carbohydrate Determinant), being the only positive component test indicates that the cause of symptoms may be something other than celery.

Please note that the test results should be interpreted by your health care provider, in the context of your clinical history. Final diagnosis and decision on further management is made by your healthcare provider.

## How do I manage my allergy?

Because there is no cure for food allergies, your healthcare provider may recommend a plan that includes the following.<sup>10-13</sup>

### Allergen avoidance

- Read ingredient labels and “may contain” advisory panels on food and nonfood products carefully, and avoid all foods and products containing any form of the allergen. Note that these lists and panels may not appear on the same side of a product’s packaging and that manufacturers frequently change ingredients. If you’re unable to obtain a list of ingredients, it’s safest to avoid that item.
- Avoid cross contamination when cooking by using two sets of cooking and eating utensils, with one exclusively for the allergic individual. Wash all dishes and utensils in hot soapy water between uses.
- Craft an action plan with a list of steps for you and others to take should you accidentally ingest the allergen. Print out a copy of the plan and carry it with you.
- Talk with restaurant chefs about your allergy and order food that’s simply prepared and void of any form of the allergen. Avoid desserts, as they often contain or have come into contact with food allergens.
- Plan ahead for traveling to ensure your food allergy will be managed and any emergency medication is always available.
- Wear a medical ID bracelet identifying the allergen to which you’re allergic.
- Carry any recommended or emergency medication with you at all times.
- Teach children with food allergies which foods to avoid. Work with caregivers and school staff to eliminate or reduce exposure to the allergen and to ensure they understand when and how to use medication to treat symptoms.

### Symptom relief

Your health care provider may direct you to take one of the following medications:

- Epinephrine auto-injector when there are signs of an acute severe event, aka anaphylaxis (see below). Ensure your family members know how to administer it in case of an emergency.
- Antihistamines as supplement may be useful in relieving mild symptoms (e.g., itch), however they do not halt the progression of an allergic reaction.
- Bronchodilator (albuterol) is a supplemental therapy for respiratory symptoms, especially in those with a history of bronchospasm or asthma.

### Emergency plan

If you’re with someone who’s having an allergic reaction and shows signs of shock, act fast. Look for pale, cool, and clammy skin; a weak, rapid pulse; trouble breathing; confusion; and loss of consciousness. Do the following immediately:

- Call local emergency services.
- Ensure the affected individual is lying down with legs elevated.
- Administer epinephrine immediately for any obvious signs of anaphylaxis.
- Check the affected individual’s pulse and breathing and administer CPR or other first-aid measures if necessary.

View all references at the bottom of the online allergen fact sheets at [AllergyInsider.com](https://www.allergyinsider.com) >

\*These products may not be approved for clinical use in your country. Please work with your healthcare provider to understand availability.

Prepare for your next visit with your healthcare provider.



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