



# Buckwheat Allergen Fact Sheet

## About buckwheat

Buckwheat (aka common buckwheat) is high in protein and carbohydrates but also provides small amounts of vitamins B1 and B2 as well as rutin, an ingredient with antioxidant capacity.<sup>1,2</sup> Hulled buckwheat kernels are cooked and served much like rice, and buckwheat flour can be mixed with wheat flour to create a variety of dishes, including popular options such as crepes and noodles (e.g., soba, ramen, somen, and udon).<sup>1,3</sup> However, buckwheat is considered a serious food allergen because it can cause severe reactions such as anaphylaxis in allergic individuals.<sup>2</sup> Various forms of allergic reactions may occur via ingestion, occupational exposure, and domestic exposure through pillows filled with buckwheat husks.<sup>4</sup> For those allergic to buckwheat, inhalation of buckwheat flour can also cause a reaction.<sup>2</sup> In the United States, much of Western Europe, and Australia, buckwheat-sensitization prevalence is 2.8 percent overall and 2.2 percent excluding those with sensitivities to birch pollen.<sup>5</sup> However, buckwheat is the sixth most common source of food allergy in Japan, where it's also the fourth most frequent cause of food-related anaphylaxis.<sup>6</sup> Although the median ages of buckwheat allergy in children in Korea and Japan are 7 years and 7.4 years, respectively, most children eventually outgrow it. One study in Japan demonstrated that 72 percent of children with a buckwheat allergy had acquired tolerance by a median age of 7. What's more, two-thirds of children with prior anaphylactic reactions to buckwheat developed tolerance after a dietary elimination period of a median 10.5 years.<sup>7</sup>

## Do I need to avoid all forms of buckwheat?\*

Some of the allergenic proteins in buckwheat are stable to both heat and digestion. A buckwheat allergic person may therefore be at risk of reacting to any form of buckwheat (cooked, baked, processed, or raw).<sup>5</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 sensitized to a particular allergen. If you are diagnosed with an allergy, your healthcare provider will work with you to create a management plan.

Note that the majority of children with buckwheat allergies seem to outgrow the allergy and be tolerant of buckwheat later in childhood.<sup>7</sup> Specific IgE blood testing can help determine if allergy is outgrown and if food can be reintroduced again.

## COMMON SYMPTOMS

Buckwheat 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>8</sup> Symptoms may involve the skin, gastrointestinal tract, cardiovascular system, and respiratory tract, and may include one or more of the following:<sup>8,9</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>10,11</sup>

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

Buckwheat allergy can also cause exercise-induced anaphylaxis, a rare disorder in which individuals develop IgE-mediated hypersensitivity in conjunction with exercise, causing anaphylaxis.<sup>3,12</sup>

## Where is buckwheat found?

Buckwheat or buckwheat flour can be found in dishes such as dumplings, buckwheat pancakes (aka galettes), soups, porridges, pastas, pizzas, cookies, sausages, beer, noodles (e.g., soba and guksu), memilmuks (Korean jellies), pizzoccheri (Italian pasta), polenta taragna, pancake-blinis, and poffertjes.<sup>2,13</sup> Additionally, since buckwheat isn't botanically related to wheat, it's usually safe for individuals allergic to wheat.<sup>13</sup> Thus, buckwheat is often used to create gluten-free foods.<sup>2</sup> Buckwheat chaff (i.e., hulls) are sometimes used for pillow fillings.<sup>4</sup>

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

Some people with buckwheat 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.<sup>5</sup> Several case studies have revealed cross-reactivity between buckwheat and latex, coconut, and poppy seeds.<sup>2</sup>

If you experience an itchy mouth or ears, scratchy throat, hives on the mouth, or swelling of the lips, mouth, tongue, or throat after eating buckwheat or other related fresh fruits, raw vegetables, or tree nuts, you may suffer from pollen food allergy syndrome (PFAS) also called oral allergy syndrome (OAS). This condition is caused by your immune system's reaction to similar proteins, or components, found in foods and pollens.<sup>10</sup> It is quite common, as one study suggests that up to 25 percent of 8-year-old children with allergic rhinitis (aka hay fever) also suffer from PFAS.<sup>14</sup> Common pollen allergies that could cause OAS when eating buckwheat include tree (e.g., birch), grass, and weed.<sup>11</sup>

## How do I manage my allergy?

If you are allergic to buckwheat, your healthcare provider may recommend a plan that includes the following.<sup>2,15-18</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.
- Check for common buckwheat as an ingredient if purchasing gluten-free food.



## IS THERE A RISK FOR A SEVERE EVENT?

Because buckwheat allergic reactions are unpredictable and symptoms range from local reactions to systemic, it is recommended that an epinephrine prescription be considered for any patient with an IgE-mediated food allergy.<sup>15</sup>

## How do I manage my allergy? (continued)

### Symptom relief

Your healthcare 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 a supplement may be useful in relieving mild symptoms (e.g., itch), however they do not halt the progression of an allergic reaction.
- Bronchodilator (albuterol) as 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) >

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