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## **Common Food Allergen Substitutions for Child Care Settings**

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**Produced by the ODPH Child Care Working Group**

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## ACKNOWLEDGEMENTS

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### **About ODPH**

Ontario Dietitians in Public Health (ODPH) is the independent and official voice of registered dietitians working in the Ontario public health system. For more information, please visit our website at [odph.ca](http://odph.ca) or contact us via email at [info@odph.ca](mailto:info@odph.ca).

The ODPH Child Care Working Group (CCWG) has developed many resources to support child care settings in planning healthy menus and creating supportive nutrition environments that help providers meet the food and drink requirements set out in the Child Care and Early Years Act, 2014 (section 42 of Ont. Reg. 137/15). These resources can be accessed at <https://www.odph.ca/child-care-resources>.

## Managing Food Allergies

Keeping children with food allergies safe and healthy requires trusting partnerships and clear communication between child care providers and families. It is recommended that cooks and/or supervisors meet and discuss a child's special dietary needs upon enrollment or when needed to promote consistent and clear communication between all staff and the family. In some cases, parents may need to bring in an ingredient or food for their child.

[Food Allergy Canada](#) has many educational [resources for child care providers](#) to promote safe and nurturing environments for children with food allergies in child care.

To promote an inclusive environment, it is recommended that when substitutions are offered for special dietary reasons, they resemble the foods offered to the other children as much as possible. Substitutions need to be documented.

## What is a Food Allergy?

A food allergy is when the immune system mistakenly treats something in a particular food, most often the protein, as if it's dangerous (1).

The 10 **most common food allergens** include (2):

- Eggs
- Fish (e.g., cod, halibut, salmon, tilapia, trout, tuna)
- Milk
- Mustard
- Peanuts
- Shellfish (e.g., shrimp, crab, lobster, mussels)
- Soy
- Sesame seeds
- Tree nuts (e.g., walnuts, almonds, hazelnuts, cashews)
- Wheat

## Egg Substitutes

### For moisture (per egg)

- ¼ cup (60 mL) applesauce, pumpkin puree, sweet potato puree or other fruit/vegetable purees that are smooth and creamy
- ¼ cup (60 mL) silken tofu, pureed
- ¼ cup (60 mL) vegetable oil, milk or plain yogurt

### As a binder (per egg)

- ¼ cup (60 mL) banana or avocado, mashed (approx. ½ medium fruit)
- 3 Tbsp (45 mL) smooth nut-free butter (e.g., soy butter, sunflower seed butter)
- ¼ cup (60 mL) potato or sweet potato, mashed, (works well for savoury recipes like meatballs and meatloaf)
- 2 Tbsp (30 mL) sifted cornstarch + 3 Tbsp (45 mL) water or pureed tofu (works well with savoury recipes)
- 1 Tbsp (15 mL) ground flax seed or chia seed + 3 Tbsp (45 mL) warm water (mix well and allow to gel for 15 minutes before adding to the recipe)

### As a leavening agent (per egg)

- 1 ½ Tbsp (22 mL) vegetable oil + 1 ½ Tbsp water (22 mL) + 1 tsp (5 mL) baking powder
- 1 Tbsp (15 mL) apple cider vinegar + 1 tsp (5 mL) baking soda (add vinegar to wet ingredients and baking soda to dry ingredients, combining at the end)
- ¼ cup (60 mL) fruit puree + increase both baking powder and baking soda by 25%

### Scrambled egg

- Tofu scramble - typically made by chopping up firm tofu and sauteeing in a small amount of vegetable oil, adding spices and/or sautéed vegetables as desired

### Omelette/Frittata/Quiche

- Flour-based omelette/frittata/quiches (e.g., chickpea flour, quinoa flour)
- Silken tofu omelette/frittata/quiches

## Dairy Substitutes

### For beverages

*Milks from other animals (e.g., goat, sheep) are not safe alternatives for those allergic to cow's milk since most children will react to these alternative milks as well.*

- For infants and young toddlers under 2 years of age, follow instructions from parents
- Fortified soy beverage can be offered to children over 2 years of age

### For baked goods

#### Buttermilk

- 1 Tbsp (15 mL) vinegar or lemon juice + 1 cup (250 mL) soy beverage (stir and let it sit for 5 minutes)

#### Yogurt (for moisture)

- Silken tofu, pureed

#### Butter

- Dairy-free, non-hydrogenated margarine
- Vegetable oils

### For snacks

#### Yogurt

- Soy yogurt
- 1 cup (250 mL) silken tofu, pureed + 2 Tbsp (30 mL) lemon juice + fruit or vanilla extract for added taste, as desired

#### Cheese

- Plant-based/vegan cheese (e.g., from soy)

## Soy Substitutes

### For beverages

- For infants and young toddlers under 2 years of age, follow instructions from parents
- Cow's milk (if tolerated) or fortified plant-based beverages (other than soy beverage) can be offered to children over 2 years of age

## Wheat and Gluten Substitutes

### For baked goods

*Wheat-free flour may not rise as much in baked goods, so recipes may need to be cooked longer at a lower oven temperature (around 25°F less). Adding ½ tsp (2 mL) of baking powder per 1 cup (250 mL) of substitute flour or an extra egg in the recipe may help baked goods rise more.*

#### Wheat flour (per 1 cup/250 mL)

- ⅔ cup (220 mL) rice flour (brown rice flour works best in baked goods with a grainy texture, e.g., bread)
- ¾ cup (175 mL) potato flour
- 1 cup (250 mL) tapioca flour
- 1 cup (250 mL) millet flour
- 1 ¼ cups (310 mL) rye flour

#### For multi-ingredients flours

*Multi-ingredient flour substitutes work best in baked goods. They can also be bought premixed.*

- 4 ½ cups (1.1 L) white rice flour + 1 ½ cups (375 mL) potato starch + ¾ cup (175 mL) tapioca flour
- 1 cup (250 mL) rye flour + 1 cup (250 mL) potato flour

### For thickening (per 1 Tbsp/15 mL wheat flour)

- ½ Tbsp (7 mL) cornstarch
- ½ Tbsp (7 mL) potato flour/starch
- 1 Tbsp (15 mL) tapioca flour
- 1 ½ Tbsp (22 mL) arrowroot flour

### For meal sides

- Wheat pasta and couscous substitutes: gluten-free pasta, rice vermicelli, quinoa, rice
- Bread substitutes: gluten-free bread (available in most grocery stores)

### For breakfast and snack

- Cereal substitutes: gluten-free certified cereals (read labels carefully)
- Rice cakes or other gluten-free crackers

### Notes

- Children with wheat allergies cannot eat most gluten products although some children may be able to eat food items made with oats, rye and barley which contain gluten. It is important to **check with parents of children with wheat allergies** to find out if their child can tolerate oats, rye or barley.
- Barley is quite “cross-reactive” with wheat. This means an allergic reaction can occur because the proteins from barley and wheat are similar.
- Often rye bread will also contain wheat flour.

## Website for allergy-friendly recipes

Please note the recipes on the following websites do not necessarily reflect the recommendations from the [Menu Planning & Supportive Nutrition Environments in Child Care Settings - Practical Guide](#). Always consider the Menu Planning and Supportive Nutrition Environments for Child Care Settings - Practical Guide recommendations to ensure recipes follow the guidelines.

### Cookspiration - Dietitians of Canada (English and French):

- [Dairy-free recipes](#)
- [Egg-free recipes](#)
- [Gluten-free recipes](#)
- [Soy-free recipes](#)
- [Wheat-free recipes](#)

### Food Allergy Canada (English only)

- [Allergy-friendly recipes](#)

### Kids with Food Allergies (English only)

- [Safe Eats® Allergy-Friendly Recipes: The Largest Collection of “Free Of” Recipes](#)

### Pulses Canada (English only)

- [Pulses and the Gluten-free Diet](#)



## References

1. Food Allergy Canada. What is a food allergy? [Internet] 2019 [cited 2019 Dec 3]. Available from: <https://foodallergycanada.ca/food-allergy-basics/food-allergies-101/what-are-food-allergies/>
2. Health Canada. Common food allergens. [Internet] 2018 [cited 2019 Dec 3]. Available from: <https://www.canada.ca/en/health-canada/services/food-nutrition/food-safety/food-allergies-intolerances/food-allergies.html>