

# Allergy and Immunology

## WHEAT ALLERGY

Wheat contains a number of different proteins. Allergic reactions to wheat can result from reactions to one or more of these proteins. The management of wheat allergy involves strict avoidance of wheat and wheat containing foods.

### **How is wheat allergy different from Coeliac Disease?**

One of the proteins present in wheat and some other cereals is called gluten. Coeliac disease is a condition where the lining of the small intestine is damaged by an immunological reaction as a result of exposure to gluten.

The treatment for Coeliac disease involves the strict avoidance of all gluten containing cereals including wheat, barley, oats and rye. Coeliac disease is a lifelong condition. In contrast, children with a wheat allergy may react to components of wheat which are different from gluten and therefore may tolerate other grains that contain gluten such as rye and oats. Children usually grow out of their wheat allergy whereas coeliac disease is a lifelong condition. Products labelled as gluten free can also be included in a wheat free diet as gluten free products do not contain any wheat proteins.

### **Will my child grow out of their wheat allergy?**

Many children will grow out of their wheat allergy. By adolescence approximately 2/3 children will outgrow their wheat allergy. The doctors will determine whether your child has outgrown their allergy by a combination of skin testing and food challenge with wheat. Skin tests may be repeated periodically to monitor your child's allergies. The result of a skin test may not always show whether your child will have symptoms when they have wheat products, therefore a challenge with wheat may be the only way to determine if your child has outgrown their wheat allergy. Challenges may need to be done in a hospital by experienced medical staff. Do not do challenges at home unless instructed to by your doctor.

### **Are allergy blood tests helpful?**

A blood test for wheat allergy may sometimes help your doctor decide whether your child has outgrown the wheat allergy. This test may be helpful in those children who have had an anaphylactic reaction to wheat.

### **How should my child AVOID WHEAT?**

Wheat is a common cereal grain and forms the basis of many of our staple foods in Australia such as breads, breakfast cereals, pasta and baked goods. Wheat is also commonly used as the base ingredient for many additives in commercial food products such as thickeners, and stabilising agents. In order to avoid wheat it is necessary to be familiar with the large number of food items that can contain wheat and if the food is labelled to understand what these labels mean.

Contain wheat	Likely to contain wheat
<ul style="list-style-type: none"> <li>• Wheat flour</li> <li>• Bulgar and durum wheat</li> <li>• Wheatgerm</li> <li>• Wheat starch</li> <li>• Semolina</li> <li>• Cous cous</li> <li>• Wheat pasta</li> <li>• Wheat noodles</li> <li>• Regular bread</li> <li>• Battered or crumbed meats</li> <li>• Soups with pasta or noodles</li> <li>• Baked products such as biscuits, cakes, pancakes, pastry</li> <li>• Commercial teething rusks</li> <li>• Pretzels</li> <li>• Ice cream cones and wafers</li> </ul>	<ul style="list-style-type: none"> <li>• Rissoles and sausages</li> <li>• Processed meats and sandwich meats</li> <li>• Breakfast cereals</li> <li>• Soy products (wheat based maltodextrin)</li> <li>• Chicken stuffing and skin seasonings</li> <li>• Dry roasted nuts</li> <li>• Gravy, stock cubes and sauces</li> <li>• Canned soups</li> <li>• Soy sauce</li> <li>• Flavoured crisps</li> <li>• Confectionary</li> <li>• Flavoured milk powders, coffee creamers and whiteners</li> <li>• Icing sugar mixture</li> </ul>

## LABEL READING

### Ingredients List

All packaged foods must have an ingredients list. You must check this ingredients list for any ingredients that may contain wheat. Since 2002, it has been law that all potential food allergens (peanut, tree nut, seafood, fish, milk, eggs, soybeans and wheat) must be clearly identified, however small the amount.

Example: instead of simply maltodextrin the ingredients list should read maltodextrin (wheat) or wheat maltodextrin.

**ALWAYS** check the ingredients list every time you buy the food as the ingredients of the product may change.

### Do all wheat based ingredients need to be avoided?

No. Some ingredients made from wheat are so well processed that all the wheat proteins which trigger the allergic reaction have been removed. These products are still labelled as containing wheat. The chance of an allergic reaction to these ingredients is very unlikely. These ingredients include glucose, glucose syrup, dextrose, caramel colour and monosodium glutamate.

### What about “May contain traces of wheat” statements

These statements are used by manufacturers to indicate that the product may be contaminated with wheat through processing and packaging. At present these statements are voluntary and there are no clear guidelines for companies regarding how and when to use them. The wording of the statements makes it very difficult to determine your level of risk and a product that does not contain the statement may be no safer than a product that does. The chances of having a significant allergic reaction through contamination during processing is extremely unlikely and most families choose to ignore these statements as the only safe alternative is to not include any commercial food products in your child's diet.

### How should I replace wheat based products in the diet?

There are many other grain choices available to replace wheat in the diet. Some of these grains (such as rye, oat and barley) contain some similar proteins to wheat and may also result in reactions for some people with a wheat allergy. Some people may also be allergic to multiple grains so it is recommended that each grain type is trialled individually. Spelt, triticale and kamut are types of wheat and are not suitable for people with a wheat allergy.

	Grain Types	Comments
<b>Avoid</b>	<ul style="list-style-type: none"> <li>• Kamut</li> <li>• Triticale</li> <li>• Spelt</li> <li>• Semolina</li> </ul>	Types of wheat
<b>Alternatives for wheat</b>	<ul style="list-style-type: none"> <li>• Corn or Maize</li> <li>• Chia flour</li> <li>• Rice</li> <li>• Buckwheat</li> <li>• Potato Flour</li> <li>• Soy Flour</li> <li>• Millet</li> <li>• Chickpea or Besan flour</li> <li>• Lupin flour</li> <li>• Quinoa</li> <li>• Amaranth</li> <li>• Sorghum</li> <li>• Tapioca</li> <li>• Sago</li> <li>• Arrowroot</li> </ul>	Trial each grain individually
<b>May be tolerated</b>	<ul style="list-style-type: none"> <li>• Rye</li> <li>• Oat</li> <li>• Barley</li> </ul>	High cross reactivity with wheat, include only after discussion with your doctor

### Where can I find WHEAT FREE products?

<b>Supermarkets</b>	Coles, Safeway, IGA and independent supermarkets all stock a variable range of allergy products in the health food section/aisle.
<b>Online Specialty Allergy stores</b>	<ul style="list-style-type: none"> <li>• Absolutely Gluten Free: <a href="http://www.absolutelyglutenfree.com.au">www.absolutelyglutenfree.com.au</a></li> <li>• Sunnybrook Health Store: <a href="http://www.sunnybrookonline.com.au">www.sunnybrookonline.com.au</a></li> <li>• Gluten 3 Living: <a href="http://www.gluten3living.com.au">www.gluten3living.com.au</a></li> </ul>

(As discussed above gluten free products which are required to treat coeliac disease are also suitable for wheat allergic children as they do not contain any wheat proteins.)

## Specialty Brands

- Freedom Foods: [www.freedomfoods.com.au](http://www.freedomfoods.com.au)
- Lowan Whole Foods: [www.lowan.com.au](http://www.lowan.com.au)
- Orgran Natural Foods: [www.orgran.com.au](http://www.orgran.com.au)

## Starter Shopping List

Check all ingredients, particularly if your child has multiple food allergies as some products may contain common allergens such as milk, egg or soy

## Breakfast cereal

- Freedom Foods cornflakes (100% corn)
- Freedom foods rice puffs (rice and corn)
- Freedom Foods rice flakes (rice and corn)
- Freedom foods Ultra rice (rice and corn)
- Lowans rice porridge (100% rice )
- Norganic Corn flakes (100% corn)
- Orgran Amaranth puffed cereal (100% amaranth)
- Orgran Multigrain O's (rice, quinoa)
- Schar Cornflakes (100% corn)
- Quinoa Flakes (Nature First and Eden Organics)
- Buckwheat Puffs (Nororganic)

## Bread

- Country Life breads (usually contain milk and egg) [www.countrylifebakery.com.au](http://www.countrylifebakery.com.au)
- Dovedale Rice Chia bread (100% rice) [www.dovedalebread.com.au](http://www.dovedalebread.com.au)
- Lifestyle Bakery Gluten Free range (contain soy) [www.lifestylebakery.com.au](http://www.lifestylebakery.com.au)
- Naturis Rice loaf (100% rice) **02 99484097**
- Naturally Gluten Free Classic loaf (contains tapioca, quinoa, corn) [www.organicfeast.com.au](http://www.organicfeast.com.au)
- Sol Rice and Polenta bread (rice, arrowroot, polenta) [www.ishop.solbreads.com.au](http://www.ishop.solbreads.com.au)
- Sol Gluten free Rice and Pumpkin (rice, arrowroot, buckwheat) [www.ishop.solbreads.com.au](http://www.ishop.solbreads.com.au)
- Organic Wholefoods Oat bread (100% Oat) [www.wholefoods.com.au](http://www.wholefoods.com.au)
- Lichtensteins Bread (contains egg, 100% rice)
- Choices bread range

## Wraps

- True food Gluten free wraps (rice, tapioca, flour, potato)
- Empower Gluten Free Wraps (rice, tapioca, potato)
- Freedom Foods Gluten Free Wraps

## Bread Mixes (milk and soy free)

- Orgran Easy bake GF bread mix (corn, rice) [www.orgran.com.au](http://www.orgran.com.au)
- Well and Good Classic bread mix (rice, potato, tapioca) [www.wellandgood.com.au](http://www.wellandgood.com.au)
- Casalare bread mix

## Baking and Cooking

- White wings gluten free flour
- Orgran flour
- Simply No Knead and Select Foods flour varieties (tapioca, besan, soy, potato, rice, maize)

- Orgran gravy mix
- Orgran All purpose crumbs
- Wards or White wings brand baking powder
- Hullabaloo Cake mixes (rice and tapioca)
- Orgran cake and muffin mixes (rice, corn, potato)
- Well and Good Cake Mix and Muffin mix (tapioca, rice, potato)
- Orgran Pizza and pastry mixes
- Orgran Pastry Mix (corn, rice, tapioca, potato)
- Bakels Gluten free pastry mix (rice and corn)

### **Pasta and Noodles**

- Orgran pasta range
- San Remo Gluten free Pasta range
- Millet based cous cous

### **Snacks and Treats**

- Arnotts corn cruskitts (good for teething rusks)
- Orgran Outback Animals
- Plain corn chips and potato chips
- Plain popcorn
- Plain rice crackers
- Schar Grissini sticks (good for teething rusks)
- Gluten free confectionary