

# DEPARTMENT OF ALLERGY & IMMUNOLOGY

## ROYAL CHILDREN'S HOSPITAL, MELBOURNE

# COWS MILK ALLERGY

ROYAL  
CHILDREN'S  
HOSPITAL



Cow's milk is one of the most common causes of food allergic reactions in children. At this time there is no treatment for food allergy. If your child is allergic to cow's milk, strict avoidance of milk and all milk containing foods is the only way to prevent symptoms.

### Cow's Milk Alternatives

Milk is an excellent source of protein and calcium, therefore it is important to replace it with a suitable alternative to ensure adequate nutrition and growth. The most appropriate alternative will depend on your child's age. Infant formula is usually based on cow's milk. Children under 1 year of age will require an alternative infant formula. Discuss the options with your doctor or dietitian.

### Summary of Cows Milk Alternatives

<b>Breastfeeding</b>	Breastfeeding mothers <b>may</b> need to remove cows milk and cows milk containing products from their diet. Your doctor will discuss this.
<b>Partially Hydrolysed Infant Formulae</b> Nan HA, Karicare HA	Not suitable for infants with established cows milk allergy.
<b>Soy Infant Formulae</b> Infasoy, Isomil, Karicare Soy	Reasonable first alternative for infants over 6mths of age Up to 15-20% of children who are allergic to cows milk will also be allergic to soy products.
<b>Extensively Hydrolysed and Amino Acid Based Infant Formulae</b> PeptiJunior, Alfare, Elecare, Neocate and Neocate Advance	Specialised Hypoallergenic formula only available on prescription from your doctor
<b>Sheep and Goats milk</b>	<b>Not</b> suitable for infants under 12 months <b>Not</b> a suitable alternative to cows milk because they contain a similar protein to that found in cows milk and could result in similar symptoms.
<b>Soy Milk</b>	<b>Not</b> suitable for infants under 12 months as a breastfeeding alternative. Can be used in cooking and on breakfast cereals. Suitable for older children (1-2yrs) if soy is tolerated. Ensure you are using a brand with added calcium.
<b>Cereal based beverages (Rice Milk, Oat Milk, Almond milk)</b>	Usually well tolerated if reactions to cows milk and soy. Low in fat and protein and need to use with caution in children under 2 years of age or children with slow growth. Ensure you are using a brand with calcium added.
<b>A2 Cows milk</b>	<b>Not suitable for infants with cows milk allergy</b> Contains all of the proteins that are present in regular cow's milk except for the A1 beta casein.

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

For the majority of children their cow's milk allergy will resolve by 10-12 years of age. The doctors will determine whether your child has grown out of their allergy by a combination of skin testing and food challenge with milk. Skin tests may be repeated to monitor your child's allergies. A positive skin test to milk does not always mean your child will have symptoms when they have milk or milk products, therefore a challenge may be the only way to determine if your child has grown out of their milk allergy. Challenges may need to be done in a hospital by experienced medical staff. Do not do challenges at home unless discussed with your doctor.

**AVOIDING MILK**

<b>Foods and Ingredients that contain cow's milk protein</b>	<ul style="list-style-type: none"> <li>• Butter</li> <li>• Buttermilk</li> <li>• Casein and caseinates</li> <li>• Cheese</li> <li>• Cheese powder</li> <li>• Cheesymite spread</li> <li>• Cheese spreads</li> <li>• Condensed milk</li> <li>• Cottage cheese</li> <li>• Cream</li> <li>• Cream cheese</li> <li>• Curds</li> <li>• Custard</li> <li>• Dairy solids</li> <li>• Hydrolysates (casein, milk protein, whey)</li> <li>• Evaporated milk</li> <li>• Ghee, butter oil or butter fat</li> <li>• Goat and sheep's milk</li> <li>• Feta cheese</li> <li>• Fruche</li> <li>• Ice cream</li> <li>• Infant formula (cows milk based)</li> </ul>	<ul style="list-style-type: none"> <li>• Lactalbumin</li> <li>• Lactoglobulin</li> <li>• Lactose free milk</li> <li>• Milk – low fat, skim, A2, UHT</li> <li>• Milk derivative</li> <li>• Milk protein</li> <li>• Milk solids</li> <li>• Non fat dairy or milk solids</li> <li>• Probiotic drinks</li> <li>• Ricotta cheese</li> <li>• Skim milk solids</li> <li>• Sustagen and high protein drink powders</li> <li>• Sour cream</li> <li>• Whey</li> <li>• Yoghurt</li> </ul>
<b>Foods and ingredients likely to contain cow's milk protein</b>	<ul style="list-style-type: none"> <li>• Infant feeding rusks</li> <li>• Biscuits</li> <li>• Breads</li> <li>• Breakfast cereals</li> <li>• Cakes</li> <li>• Canned spaghetti</li> <li>• Caramel, fudge, butterscotch</li> <li>• Chocolate</li> <li>• Commercial baby foods</li> <li>• Confectionary</li> <li>• Creamed soups</li> <li>• Crumbed and battered products</li> <li>• Dips</li> <li>• Drinking chocolate, Milo malted milk powder</li> </ul>	<ul style="list-style-type: none"> <li>• Gravy powders</li> <li>• Margarine</li> <li>• Milk ice confectionary</li> <li>• Pasta sauces</li> <li>• Potato products – mash, salads and instant potato</li> <li>• Processed meats-sausages, sandwich meats, hamburgers</li> <li>• Sorbet and Gelati</li> <li>• Salad dressings</li> <li>• Snack foods – crisps, crackers</li> <li>• Pastry items</li> </ul>

## Dairy Product Alternatives

Instead of:	Use
Standard Infant formula	Breast milk, soy formula, specialised infant formula prescribed by your doctor
Cow's milk (children over 1-2yrs of age)	Soy milk or cereal based beverages such as rice or oat milk. Choose calcium fortified brands (120mg/100ml)
Yoghurt	Soy yoghurt (highly allergic children may still react due to a milk based starter used to make the yogurt) Eg. Soy Life and Kingland brands
Cheese	Soy based cheese (check as some brands contain casein) <ul style="list-style-type: none"> <li>• Kingland Soy cream cheese and Tofutti soy cheese spread.</li> <li>• Redwood brand Cheezly and Parazano brand for hard cheeses</li> <li>• Tofutti brand make soy cheese slices in cheddar and mozzarella style.</li> </ul>
Icecream	Soy ice cream, sorbet, milk free gelato Eg. Soylati Vanilla and Mango Gelati Sanitarium Soy Good Bliss Range
Cream and condensed milk	Soy cream, soy cooking milk, soy condensed milk Eg. Probios brand soy cream, Nestle soy based cooking milk, Tofutti sour cream
Butter and margarine	Milk free margarine Eg. Becel, Sundew, Nuttelex brands
Chocolate	Soy based chocolate Eg. Sweet William and Kinnerton brands Rice based chocolate eg Bonvita

If you are having trouble finding some of these products in your supermarket try online allergy or vegetarian product stores such as: [www.crueltyfreeshop.com.au](http://www.crueltyfreeshop.com.au) or [www.veganperfection.com.au](http://www.veganperfection.com.au).

## LABEL READING

### **Ingredients List**

All packaged foods must have an ingredients list. You must check this ingredients list for any ingredients that may contain milk. 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 casein the ingredients list should read casein (milk) or milk casein.

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

### **“May contain traces of milk” statements**

These statements are used by manufacturers to indicate that the product may be contaminated with milk 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 the 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. Most families choose to ignore these statements as the only safe alternative is to avoid all commercial food products in your child's diet. For children with severe allergic reactions companies can be contacted directly to explore food processing, packaging and cleaning procedures.

### LACTOSE IN MEDICATIONS

Lactose is the sugar contained in cow's milk. The pure sugar form is used in medications. The chance of a person with milk allergy reacting to pure lactose in medications is very low.

### FOOD PREPARATION

Highly allergic children can have a mild reaction from foods contaminated with milk or from cooking surfaces and utensils contaminated with milk or milk containing foods.

### What about Nutrition?

Cow's milk and products made from cow's milk such as yoghurt and cheese are important sources of protein, fat, calcium and vitamin A and D. Cow's milk and dairy products are the main source of calcium in our diet. When eliminating cow's milk and dairy products from the diet it is important to check your child has enough calcium from other foods.

Calcium needs change with age. Below is a table with the recommended daily intake or RDI of calcium and the number of serves of calcium needed to provide the RDI. (1 serve = 250mg Calcium).

Age	Calcium requirement per day (mg) or RDI	Number of serves per day
1-3yr	500	2
4-8	700	3
9-13	1000-1300	4-5
14-18	1300	5
Breastfeeding women	1000	4

The following amounts of food provide on average one serve of calcium.

Food Product	Serve size = 1 serve of calcium (250mg)
Breast milk	700mls
Infant formula – Step 1 From birth	500mls
Infant formula – Step 2 Follow On	300-350mls
Toddler Formula – Step 3	200mls or 1 cup
Soy formula	400mls
Peptijunior, Alfare and Neocate formulae	500mls
Neocate Advance formula	220mls or 1 cup
Elecare formula - < 12 mths of age	300mls
Elecare formula - > 12 mths age	200mls or 1 cup
Soy milk with added calcium	200mls or 1 cup
Rice or Oat drink with added calcium	200ml or 1 cup
Soy yoghurt	200g or 1 regular tub
Soy cheese	125g – 400g (varies)
Almonds	100g
Tahini	75g
Canned sardines(must eat bones)	75g
Salmon with bones	1/4cup
White sesame seeds	400g
Boiled spinach and raw parsley	150g
Broccoli	5 cups

## CALCIUM SUPPLEMENTS

Calcium supplements are available over the counter at chemists and supermarkets. They are used to supplement the diet if the dietary intake of calcium is low.

Some of the available supplements are listed below. Ask your chemist for more information.

**Nature's Way Kids Calcium** contains **200mg** of calcium.

It comes in the form of a flavoured, chewable 'burstlet'.

**Caltrate** contains **600mg** of calcium.

It is a chalky tablet that can be crushed and added to food or fluids or swallowed whole.

**Cal-sup** contains **500mg** of calcium.

It is spearmint flavoured and can be sucked, chewed or swallowed whole.

**Calsource (formally Sandocal)** contains **1000mg** of calcium.

It is an effervescent tablet that dissolves in water.

**Andrews Tums Antacid Tablets** contains **500mg** of calcium

It is an orange flavoured chewable tablet.

**OsteoVit-D** contains **600mg** of calcium and **500IU** of Vitamin D

Chewable vanilla flavoured tablets.

**Calvid** contains **1000mg** of calcium and **880IU** Vitamin D

It is an orange flavoured effervescent powder that dissolves in water.

If you are concerned about your child's calcium intake or growth  
discuss this with your doctor or dietitian.

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