

# Allergy and Immunology



## COWS MILK ALLERGY

Cows milk is one of the most common causes of food allergic reactions in children. If your child is allergic to cows milk, strict avoidance of milk and all milk containing foods is the only way to prevent symptoms.

### Cows 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. As many infant formulae are based on cows milk, children under 1 year of age will require an alternative infant formula which does not contain cows milk proteins. Discuss the options with your doctor or dietitian.

### Summary of Cows Milk Alternatives

<b>Breastfeeding</b>	In some cases 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> eg, Nan HA, Karicare HA	Not suitable for infants with established cows milk allergy.
<b>Soy Infant Formulae</b> eg 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> eg PeptiJunior, Alfare, Allerpr, Elecare, Neocate and Neocate Advance	Specialised Hypoallergenic formula only available on prescription from your doctor.
<b>Sheep and Goats milk</b>	<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 (> 6 MONTHS) if soy is tolerated. Ensure you are using a brand with added Calcium.

<p><b>Cereal based beverages</b> (Rice Milk, Oat Milk, Almond milk)</p>	<p>Usually well tolerated if reactions to cows milk and soy. Low in fat and protein. Should not be used for infants. Need to be used under the guidance of a dietitian for children between 1- 2 years of age or children with slow growth. Ensure you are using a brand with calcium added.</p>
<p><b>A2 Cows milk</b></p>	<p><b>Not suitable for infants with cows milk allergy.</b> Children allergic to cows milk will also be allergic to A2 milk as this milk contains all of the proteins that are present in regular cows milk except for the A1 beta casein.</p>

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

For the majority of children their cows milk allergy will resolve. 50% of children with cows milk allergy will resolve within 2 years and 80% by 3-4 years after diagnosis. 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 instructed to do so by your doctor.

### AVOIDING MILK

<p><b>Foods and Ingredients <u>that</u> contain cows milk protein</b></p>	<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>• Nonfat 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>
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<p><b>Foods and ingredients <u>likely</u> to contain cows milk protein</b></p>	<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>
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### Cows Milk Product Alternatives

<b>Instead of:</b>	<b>Use</b>
<b>Standard Infant formula</b>	Breast milk, soy formula, specialised infant formula prescribed by your doctor
<b>Cows milk</b> (children over 1-2yrs of age)	Soy milk or cereal based beverages such as rice or oat milk. Choose calcium fortified brands (120mg/100ml)
<b>Yoghurt</b>	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
<b>Cheese</b>	Soy based cheese (check as some brands contain casein) Kingland Soy cream cheese and Tofutti soy cheese spread. Redwood brand Cheezly and Parazano brand for hard cheeses Tofutti brand make soy cheese slices in cheddar and mozzarella style
<b>Icecream</b>	Soy ice cream, sorbet, milk free gelato eg, Soylati Vanilla and Mango Gelati Sanitarium Soy Good Bliss Range
<b>Cream and condensed milk</b>	Soy cream, soy cooking milk, soy condensed milk eg, Probios brand soy cream, Nestle soy based cooking milk, Tofutti sour cream

<b>Butter and margarine</b>	Milk free margarine eg, Becel, Sundew, Nuttalex brands
<b>Chocolate</b>	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 cows 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?

Cows milk and products made from cows milk such as yoghurt and cheese are important sources of protein, fat, calcium and vitamin A and D. Cows milk and dairy products are the main source of calcium in our diet. When eliminating cows 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
1-3 yrs	500	2
4-8 yrs	700	3
9-13 yrs	1000-1300	4-5
14-18 yrs	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 pharmacist or dietitian for more information.

Supplement Name	Description	Calcium Amount	Other
Actical	Vanilla flavoured chewable tablet	200mg/tablet	Vit D 100IU
Andrews Tums	Orange flavoured chewable tablet	200mg/tablet	
Blackmores –Bio Calcium	Spearmint flavoured chewable tablet	350mg/tablet	
Nature's Way Kids Calcium	Strawberry flavoured chewable burstlet	200mg/tablet	
Nature's Way Calcium and Vitamin D (Vita Gummies)	Vanilla flavoured chewable bears	90mg/tablet	Vit D 100IU
Calcia Extra Strength	Chewable orange flavoured tablet	1000mg/tablet	
Caltrate	Chalky tablet that can be crushed and added to foods or swallowed whole	600mg/tablet	
Cal-sup	Spearmint flavoured chewable tablet	500mg/tablet	
Calsource	Dissolvable tablet	1000mg/tablet	
Calvid	Orange flavoured dissolvable granules	1000mg/sachet	Vit D 880IU
Osteo Vit-D and Calcium	Chewable vanilla flavoured tablet	600mg/tablet	Vit D 1000IU

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