

Dietary Guide - Cow's Milk Protein (Dairy) and Soy

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Cow's milk and soy are found widely in the foods we eat. Usually people who react to cow's milk protein will also react to similar proteins in goat's and sheep's milk, and milk from other animals. Avoiding all dairy and soy products including cow's milk is essential for people with confirmed cow's milk protein and soy allergy.

Excluding cow's milk and soy from an individual's diet should only be undertaken when absolutely necessary with the supervision of health professionals, who can advise on suitable alternatives to ensure optimal growth and nutrition. It is important to read and understand food labels every time you purchase a product, even if you have bought the product before as ingredients can change. It is also important to check other products that may contain cow's milk or soy including medications, toothpastes, soaps, body wash and creams.

While some people will tolerate cow's milk baked in cakes and biscuits, and occasionally processed dairy in hard cheeses or yoghurts, this should only be tried under the guidance of the medical professional managing your child's allergies.

The following foods and ingredients **CONTAIN** cow's milk protein and should be avoided:

Acidophilus milk	Dried milk / Dried milk solids	Malted milk
Butter	Evaporated milk	Margarine
Buttermilk	Ghee	Milk (A2, full cream, fat free, low fat, skim, lactose free)
Casein / caseinates	Butter oil	Milk derivative
Cheese / cheese powder (including cow, goat, and sheep)	Butter fat	Milk powder
Condensed milk	Hydrolysates (casein, milk protein, whey)	Milk protein
Cream	Ice-cream	Milk solids (regular, non-fat and skim)
Cultured milk	Infant formula (cow and goat milk based, partially hydrolysed formula)	Sour cream
Curd	Kefir	Whey
Custards	Lactalbumin	Yoghurt
Dairy solids	Lactoglobulin	

The following foods and ingredients **CONTAIN** soy protein and should be avoided:

Bean curd	Soy desserts	Soy sauce
Edamame	Soy flour	Soy yoghurt
Miso	Soy formula	Tamari
Soya beans	Soy ice-cream	Tempeh
Soy bean paste	Soy mayonnaise	Teriyaki
Soy bean sprouts	Soy milk (sweetened and un-sweetened)	Tofu
Soy cheeses	Soy protein isolate	Textured/Hydrolysed Vegetable Protein (TVP)

Coconut products

Currently imported coconut milk drinks must undergo testing for the presence of dairy if the dairy content is not declared on the label in an allergy statement or in the ingredients list. If the presence of dairy is detected it will be classified as a LABEL fail against Food Standards Code Standard 1.2.3.

Consumers with **IgE-mediated cow's milk allergy** are advised to use caution with other coconut products imported from South East Asia. Coconut products made in Australia, using Australian and the Pacific Islands grown coconuts, are most likely safe, but consumers are advised to contact manufacturers to ask about the risk of contamination with cow's milk.

The following ingredients are made from soy but are tolerated by the vast majority of individuals with soy allergy:

- Soy lecithin (Additive No 322)
- Soy bean oil (except cold pressed)
- Soy derivatives (tocopherols and phytosterols)
- Vitamin E or antioxidant (from soy)

Other legumes such as chickpeas or kidney beans and lentils are tolerated by most individuals allergic to soy.

If you are unsure, speak to your clinical Immunology/Allergy Specialist or Dietitian.

The following foods and ingredients DO NOT contain cow's milk protein and can be eaten:

- Butter flavour
- Cocoa butter
- Cream of tartar
- Lactic acid - some lactic acid starter cultures may however contain milk, so check labels carefully.
- Lactose in medication - lactose is the sugar contained in cow's milk and the pure sugar form is used in medications. The chance of an individual with cow's milk protein allergy reacting to pure lactose sugar in medications that has been contaminated with cow's milk is very low.
- Sodium or calcium lactate
- Sodium or calcium stearoyl lactylate

Note: Lactose intolerance refers to an enzyme deficiency that results in an inability to digest large amounts of the sugar in milk (lactose). People with lactose intolerance do not need to avoid all dairy foods unless they also have a confirmed cow's milk protein allergy.

Soy free bread alternatives

Most breads are made with a starter containing soy. This can make avoiding soy difficult. The following may be options for soy free breads, but it is important to check for cow's milk protein.

- Check your local baker, greengrocer, delicatessen or supermarket for soy free breads – traditional sourdough bread is usually soy free, but you still need to check.
- Home-made bread by hand or using a bread maker with allowed flours.
- Crumpets
- Flat breads such as Lebanese or Indian bread, wraps, mountain breads.

Cow's milk substitutes

Cow's milk can be an important source of energy, protein and calcium in the diet, especially for developing infants and children. Appropriate substitution is essential to ensure adequate growth and development and sufficient intake of calcium.

Rice, oat, nut, pea or coconut based drinks are NOT suitable as a drink for children under one year of age due to inadequate amounts of energy, fat and protein. For children over one year of age these drinks should only be used after consultation with a clinical immunology/allergy specialist and/or dietitian with experience in paediatric food allergy to ensure your child is getting adequate nutrition and growing appropriately.

Summary of cow's milk and soy substitutes

Instead of:	Use:
Cow's milk or soy infant formula for a child less than 1 - 2 years of age	Breast milk or appropriate formula as advised by your child's medical specialist
Cow's milk or soy drink for children over 1 - 2 years of age and adults	Rice, oat, nut, coconut or pea based drinks - choose one with at least 120 mg calcium per 100 mL
Yoghurt and custard	Coconut, nut or other plant based yoghurts, custards and chia puddings – check labels carefully and ideally choose one with added calcium. Homemade desserts with milk substitute.
Cheese	Coconut or nut based cheese
Ice cream	Sorbet, dairy and soy free ice-cream and gelato – check labels carefully
Butter and margarine	Oil or dairy and soy free margarine. Many contain soy lecithin which is tolerated by most people with soy allergy
Cream and mayonnaise	Rice cream, dairy and soy free mayonnaise
Chocolate	Dairy and soy free chocolate. Many contain soy lecithin which is tolerated by most people with soy allergy

Considerations for infants and young children

If your child will not drink the milk substitute, a dietitian can advise how to encourage your child to accept it, or how to supplement the diet with essential nutrients such as calcium, energy protein and ensure appropriate growth.

Breastfeeding mothers **may sometimes** need to remove cow's milk protein or soy from their diet. The need to avoid cow's milk protein and/or soy by a breastfeeding mother should be confirmed by your child's medical specialist.

Custard recipe

- 250ml dairy and soy free infant formula or calcium fortified alternative milk
- 2 tbsp corn flour
- ½ -1 tbsp sugar
- 2 drops imitation vanilla essence

Blend sugar and corn flour in a small amount of formula, then add the rest of the formula. Microwave for three minutes on high. Stir. If custard is not thick enough, microwave for another minute. Add vanilla essence last.

Introducing solids on a cow's milk and soy free diet

- Check labels of iron fortified baby cereals and rusks as they often contain cow's milk and/or soy. Discuss suitable brands with a paediatric allergy dietitian.
- Make up cereals with expressed breast milk or specialised formula
- Avoid baby yoghurts and custards – see above table for suitable alternatives.
- Do not delay the introduction of other common allergenic foods, introduce them before 12 months of age and keep them in the diet at least twice a week.

It is important to ensure an adequate calcium intake.

Adequate intakes of calcium for: 0 - 6 months of age = 210mg/day, 7 - 12 months of age = 270mg/day.

Recommended daily intakes of calcium

AGE	CALCIUM (mg)
1 – 3 years	500
4 – 8 years	700
9 – 11 years	1000
12 – 18 years	1300
Men 19 - 70years	1000
Men > 70 years	1300
Women 19 - 50 years (including if breastfeeding)	1000
Women > 50 years	1300

Amount of non-dairy foods required to provide 1 serve of calcium

Food product	Serve size = 1 serve of calcium (250mg)
Rice, oat, nut, coconut or pea milks with added calcium (120mg/100ml)	200mL
Almonds (raw)*	75 g (1/2 cup)
Tahini (sesame seed paste)*	75 g (3 tbsp)
Canned calcium rich tuna	30 g
Canned sardines with bones (drained)	75 g
Canned salmon with bones	100 g
White sesame seeds (hulled)*	250 g (1 2/3 cups)
Broccoli (boiled)*	500 g (3 1/2 cups)
Chia seeds*	32 g (3 tbsp)
Spinach*	430 g boiled (2 cups) or 270 g fresh baby spinach (1 extra large bag)

*Phytates and oxalates in these foods limit calcium absorption.

Use of non-dairy sources of calcium should take into account any other food allergies that would exclude their use, such as individuals with nut or sesame allergy.

Calcium supplements

Calcium supplements can be used to supplement the diet if the dietary intake of calcium is inadequate. A dietitian can provide advice on a suitable supplement and the appropriate dose.

Individuals avoiding multiple foods or food groups in their diet should see an allergy dietitian. Paediatric allergy dietitians are best placed to see infants and children.

Dental products and cow's milk (dairy) allergy

It is recommended to advise your dentist at each visit if you or your child has a cow's milk (dairy) allergy.

People with cow's milk (dairy) allergy must avoid medicated toothpastes, chewing gums and any other dental products containing Recaldent™ also known as CPP-ACP (casein phosphopeptide-amorphous calcium phosphate), which is made from cow's milk protein.

The food lists included in this document are not exhaustive. Individuals with food allergy should always check foods labels each time products are purchased.

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