

dairy-free diet

clinical information for practitioners and patients

We are led to believe that milk and other dairy products are an essential and healthy component of a balanced diet and that reduction or avoidance will lead to nutrient deficiency, namely calcium. However, there is much evidence to support the reduction or avoidance of dairy products even if you are not allergic to them.

Health problems resulting from dairy begin with modern farming, breeding and processing methods. For example, hormones and antibiotics are finding their way into our milk, pasteurisation destroys numerous essential enzymes, and the removal of butter fat, as in skim milk, reduces the ability of the body to absorb and utilize the nutrients in the milk and also removes the fat soluble vitamins.

Lactose intolerance

Lactose intolerance is a general description used for people who cannot easily digest lactose, a sugar found naturally in milk. Lactase, the enzyme in the digestive system that helps break down lactose, declines from the age of two. Symptoms may include abdominal pain, gas, cramping, bloating, diarrhoea or constipation. Symptoms may occur one hour to a few days after dairy consumption. Dairy products have also been associated with eczema, dermatitis, acne, respiratory mucus congestion and sinus problems.

Primary Lactose Intolerance is an inherited condition. Levels of intolerance vary, with 90-95% of Asians, Africans and Indians having lactose intolerance, 85% of Aboriginals, 60% of Maoris and Mediterraneans and approximately 15% of Caucasians.

Milk allergy

Dairy products contain a protein called casein, which is very hard to digest. Casein is 300 times higher in cow's milk than it is in human milk. True milk allergy to casein will only affect about 3% of the population; however, milk (lactose) intolerance is more widely spread. Dairy allergy appears to be due to the Casein A1 fraction of milk. It is worthwhile attempting consumption of A2 milk in those with demonstrable dairy allergy

Going Dairy free and reading labels

Ingredients containing lactose	Ingredients containing milk proteins
Lactose	Lactoglobulin
Butter	Casein
Margarine	Lactalbumin
Cheese	Sodium caseinate
Cream	
Yoghurt	
Whey	
Milk solids	
Non-fat milk products	
Skim milk powder	

What about calcium

Calcium is the most abundant mineral in the human body. A massive 99% of it is located in the bones and teeth and the rest is present in the nerves, muscles and bloodstream where it is needed for the production of nerve signals and muscular energy and is involved in many enzymatic reactions.

It is possible to obtain enough calcium daily from a combination of sources, in particular dark green leafy vegetables and nuts & seeds. It is also important to look at factors which reduce calcium balance, including urinary loss due to caffeine, alcohol, smoking or poor absorption due to a deficiency of stomach acid. Adequate magnesium, vitamin D and weight bearing exercise will help the body retain calcium, while a number of trace minerals have been shown to play essential roles in bone metabolism. Adequate calcium intake will slow the rate of bone loss in older people and may reduce the risk of fracture. However, Australian studies have found that the average daily intake of calcium in 65+ age group was 685mg for women and 796 for men. Considering that the RDI is 1000-1500mg in this age group, supplementation may well be necessary if dietary changes do not fill the gap. Calcium supplementation has been shown to slow bone loss in older women by 43% and reduce the risk of fracture by 26-70%.

For information on stockists of A2 milk, see www.phytomedicine.com.au/files/articles/Oceania A2 Milk Vendors.pdf

Recommended Daily Allowance			
Infants	350-550mg	Pregnant/breastfeeding women	1300-1500mg
Children aged 1-10 years	800mg	Adult women and men	800-1000mg
Teenagers	1200mg	Post-menopausal women	1300-1500mg

dairy-free diet

clinical information for
practitioners and patients

Dairy alternatives

WHAT TO AVOID	SUGGESTED SUBSTITUTES
Milk	Soy Milk (preferably organic and Malt free), rice milk, almond milk, goat's milk, sheep's milk
Yoghurt /Dairy desserts	Sugar free soy yoghurt, sheeps yoghurt, goats yoghurt
Cheese	Goats cheese, goats fetta, sheeps cheese, soya cheese
Ice Cream	Soya ice-cream, Non-dairy gelati, fruit sorbet, frozen soy desserts
Milk Chocolate	Dairy free carob bars (preferably sugar free)
Ready made sauces	Make fresh sauce using corn rice flour and soy milk
Packaged soups	Fresh soups thickened with potato or pulses such as lentils or soup mix
Butter or spreads	Olive oil, flax oil, macadamia oil, sesame oil, soy cream cheese, nut butters or spreads, avocado, tahini, homous
Buttermilk, Butterfat	Ghee, coconut milk/cream, copha
Batter (pancakes)	Make with wholemeal flour, eggs, and soy milk
Crackers with milk solids	Ryvita, Salada, rice crackers (check labels)
Malted chocolate drinks	Soya milk, carob, dandelion coffee, chicory
Note on Goat and sheep alternatives	Tips to dairy free eating
Both sheep and goats products contain lactose but in lower levels than cow products. People with mild lactose intolerance are often able to tolerate small amounts of these products. Those with allergies or sensitivities to the proteins in cow's milk will be able to tolerate sheep & goat products.	<ul style="list-style-type: none"> • All the above suggestions are available at Coles, Woolworth's, leading health food shops or the health section at any supermarket. • Read labels! • Notify restaurants when you book that you have special requirements. • Margarine commonly contains milk solids. A healthier alternative is olive oil (dip as the Italians do!), avocado, tahini, hummus and nut spreads instead of margarine or butter. • Soy cheeses sometimes contain casein. Read the label! • Mayonnaise and salad dressings traditionally are made without dairy products but many pre-prepared ones now do. Read the label!

Calcium Counter - mg of calcium per 100 grams or approximately 100mls of food

Dairy Products		Soy Products		Oatmeal	55
Skim Milk powder	1190	Soy milk (brand dependant)	100	Brown rice	33
Whole Milk Powder	900	Soy grits	255	Wheat or rye crispbread	55
Whey Powder	645	Dried soy beans	225	Meats	
Yoghurt – cows	180	Soy flour	210	All meat has < 20 mg /100 g	<20
Goats Milk	130	Tofu	170	Legumes (cooked)	95
Skimmed cows milk	123	Nuts		Navy beans	70
Buttermilk	115	Almonds	250	Chickpeas & kidney beans	50
Cows milk – whole	115	Brazil	180	Lentils	40
Human milk	30	Pistachio	136	Black eyed beans	22
Cheese		Pecan	75	Sprouts	
Parmesan	1091	Walnuts	60	Alfalfa sprouts	20
Gruyere	1000	Macadamia	50	Mung bean sprouts	260
Mozzarella	817	Hazelnuts	45	Vegetables	
Cheddar	810	Peanut butter & cashews	35	Parsley	260
Gouda	810	Seeds		Watercress	190
Edam	678	Unhulled sesame seeds	1160	Rocket & dark salad leaves	185
Fetta	353	Linseeds	271	Spring onions, onions	140
Ricotta	223	Hulled sesame seeds	110	Spinach	135
Cottage	70	Sunflower seeds	98	Broccoli	125
Eggs		Pumpkin seeds	52	Silverbeet	115
Chicken (whole)	56	Grains and Cereals		Fruits	
Fish		White Self raising flour	350	Dried figs	200
Whitebait	860	Muesli (depends on brand)	200	Orange juice	60
Sardines (canned)	550	Wheat bran	150	Most fruit	<50
Salmon (canned)	100	Bread (white of brown)	100	Other	
		Rice bran & wheat germ	69	Crude molasses	654

dairy allergy

clinical information on A2 Milk for practitioners and patients

Milk is made up of Carbohydrates (Lactose) Fats and Proteins. The proteins can be divided into two major groups: Whey Protein and Casein. Casein can be further grouped into alpha, beta and kappa. Each type of casein comes in certain variants, depending on the genetics of the cow that produced it. For example more than 70% of Guernsey cows produce the A2 variety of beta casein in their milk, where as 70% of Red Danish Dairy cattle produce the A1 variety of beta casein.

A2 Milk is free of the protein called beta casein A1. There is significant evidence to suggest that there is a linkage between A1 consumption and some disease; namely Type 1 diabetes, vascular/heart disease and neurological disorders such as autism.

"Preliminary findings showed 95% of 81 autistic children had 100 times the normal levels of milk protein in their blood and urine"

"an Icelandic study across 5 Nordic countries postulates that beta casein A1, not other milk proteins examined (bovine serum albumin, immunoglobulin G, lactoferrin), may contribute to the observed varying diabetogenicity of cow's milk."

"Laugesen and Elliott, 2003 published an epidemiological study concluding that A1-casein per capita supply in milk and cream (A1/capita) was significantly and positively correlated with IHD in 20 affluent countries five years later over a 20-year period."

For more information and where to buy A2 milk look at <http://www.a2corporation.com/english/index2.html>