## **Nutrition Toolkit**

## Nutrients provided by food containing common food allergens

						Nutrients a	at Risk					
Eliminated	Protein	Carbo-	Fat	Fiber	Calciu	Vitamin D	Vitamin	Folate	lodine	Biotin	Iron	Omega
Food		hydrate			m		B12					-3
												fatty
												acids
Milk	Χ	Χ	X		Χ	X	Χ		Χ			
Egg	Χ					X				X	X	
Wheat		X		X				X			X	
Soy	X		Χ	Х	Χ			X		X	X	
Peanuts,	Х	Χ	Χ	Х								X
Tree nuts and												
seeds												
Seafood	X		Χ			X	X		X			X
Peanut				X								

## Changes in food intake nutrient requirements over the lifespan

AGE GROUP	INFANTS AND CHILDREN	CHILDREN	TEENAGERS
Increased nutritional requirements	energy, protein, essential fatty acids, > 6 months: iron, zinc iodine*	energy, protein, essential fatty acids, iron, calcium > 4 years zinc > 9 years: iodine	energy, protein, calcium, phosphorus, magnesium, zinc, iodine Females: iron
Increased risk	Delayed introduction of foods Cow's milk allergy Multiple food allergies Family inability to manage the food allergy Nursery inability to provide nutritious safe foods Feeding difficulties	Food aversions/phobia Family inability to manage the food allergy Nursery/Pre-school inability to provide nutritious safe foods	Longer term food aversions  Not consuming food allergen that have been outgrown Increased requirements with increased activity (sports) Family inability to manage the food allergy School inability to provide nutritious safe foods Social events where safe food is not available

 <sup>\*</sup>a risk for iodine deficiency has been found specifically in children with CMA

## Food sources of important nutrients

Nutrient	Allergen	Alternative sources		
Protein	Milk, egg, fish, peanut, tree nuts, soy	Meat, poultry, seeds, legumes		
Calcium	Milk	Fortified plant-based beverages, calcium fortified tofu and other foods		
Long chain polyunsaturated fatty acids	Fatty fish	Marine algae oils, refined fish oil supplements and supplemented foods		
Vitamin D	Cow's milk and fortified dairy products	Fortified plant-based beverages, salmon, trout, fortified cereals, mushrooms exposed to ultraviolet light		
lodine	Milk, fish	lodized salt, seaweed		
Selenium	Brazil nut, fish, egg	Beef, poultry, enriched macaroni, long grain rice, oats, beans		
Choline	Egg, soy, wheat germ, cod	Beef liver, beef, chicken, potato		

Factors that may increase nutritional risk	Solution
Cow's milk allergy	Optimal maternal diet if breastfeeding Suitable infant formula =/- vitamin and mineral supplementation
Multiple food avoidance – food allergy	Optimal diagnosis Counselling on which allergens can be eaten Discuss suitable replacement foods
Multiple food avoidance – cultural, religious, personal reasons	Discuss suitable replacement foods
Picky eating/feeding issues/food refusal	Involve a dietitian or/or feeding therapist Simple food textures
Long-term medication use	Monitor growth – steroid use Ask about varied diet – proton pump inhibiter
Socio-economic status	Ask about income and food security Ask about ability to buy substitute foods
Growth issues: Faltering growth/Wasting/Stunting/Mid upper arm circumference	Involve a dietitian