

Number	Food Item	GI number	size (g)	GL
PRODUCTS				
Cakes				
1	Angel food cake	67	50	19
2	Banana cake, made with sugar	47±8	80	18
3	Banana cake, made without sugar	55±10	80	16
4	packet mix with chocolate frosting (Betty Crocker,	38±3	111	20
	Pound cake (Sara Lee Canada, Bramalea, Canada)	54	53	15
	Sponge cake, plain	46±6	63	17
	mix with vanilla frosting (Betty Crocker, USA)	42±4	111	24
	Croissant (Food City, Toronto, Canada)	67	57	17
	Crumpet (Dempster's Corporate Foods Ltd., Etobicoke, Canada)	69	50	13
	Doughnut, cake type (Loblaws, Canada)	76	47	17
	Flan cake (Weston's Bakery, Toronto, Canada)	65	70	31
Muffins				
	Apple, made with sugar	44±6	60	13
	Apple, made without sugar	48±10	60	9
	made from packet mix (Defiance Milling Co., Australia)	60±4	50	16
	Martin's Muffins, Aurora, Canada)	60	57	15
	Blueberry (Culinar Inc., Canada)	59	57	17
	Carrot (Culinar Inc., Canada)	62	57	20
	Corn muffin, low-amylose	102	57	30
	Corn muffin, high-amylose	49		NA
	(Quaker Oats Co. of Canada, Peterborough, Canada)	69	50	24
	free, made from packet mix			
	(Orgran Natural Foods,	102±11	77	22
Pastry				
		59±6	57	15

mix (Defiance Milling Co., Australia)	92±8	25	7
Waffles, Aunt Jemima (Quaker Oats Co. of Canada)	76	35	10
BEVERAGES		GI	Serving
Coca Cola®			
Coca Cola®, soft drink (Coca Cola Amatil, Sydney, NSW, Australia)	53±7	250	14
(Coca Cola Bottling Company, Atlanta, GA, USA)	63	250	16
mean of two types	58±5		
Fanta®, orange soft drink (Coca Cola Amatil, Australia)	68±6	250	23
Smoothie, raspberry (Con Agra Inc., Omaha, NE, USA)	33±9	250	14
Juices			
Apple juice			
Apple juice, unsweetened	40		
Apple juice, unsweetened (Allens, Toronto, Canada)	41		
mean of three studies	40±1	250	12
Spray® Inc., Lakeville- Middleboro, MA, USA)	68±3	250	24
Spray® (Gerber Ltd., Bridgewater, Somerset, UK)	56±4	250	16
Grapefruit juice, unsweetened (Sunpac, Toronto, Canada)	48	250	11
Orange juice			
Orange Juice (Canada) reconstituted (Quelch®, Berri Ltd., Carlton, Vic, Australia)	46±6 53±6		
mean of two studies	50±4	250	13
(Dole Packaged Foods, Toronto, Canada)	46	250	16
sugar (Berri Ltd., Berri, SA, Australia) ⁶	38±4	250	4
Sports drinks			
Beverages Pty Ltd., Cheltenham, Vic, Australia)	78±13	250	12
Drinks made from drinking mix powders			

made with hot water (Nestlé, Australia)	51±3	250	11
Malted milk powder in full-fat cow's milk (Nestlé, Australia)	45±3	250	12
Milo™ (chocolate nutrient-fortified drink powder)			
Milo™ (Nestlé, Australia) dissolved in water	55±3	250	9
Milo™ (Nestlé, Auckland, New Zealand) dissolved in water	52±5	250	9
mean of two studies	54±2		
Milo™ (Nestlé, Australia) dissolved in full-fat cow's milk	35±2	250	9
Milo™ (Nestlé, New Zealand) dissolved in full-fat cow's milk	36±3	250	9
mean of two studies	36±1		
drink, Dutch Chocolate (Usana, Salt Lake City, UT, USA)	26±3	250	4
Quik™ (sweet drink powder) Sydney, NSW, Australia), dissolved in water	53±5	250	4
Australia), dissolved in 1.5% fat milk	41±4	250	5
Quik™, strawberry (Nestlé, Australia), dissolved in water	64±8	250	5
Australia), dissolved in 1.5% fat milk	35±3	250	

BREADS

Bagel, white, frozen (Lender's Bakery, Montreal, Canada)	72	70	25
Baguette, white, plain (France)	95±15	30	15
French baguette with chocolate spread (France)	72±8	70	27
French baguette with butter and strawberry jam (France)	62±7	70	26
Pain au lait (Pasquier, France)	63±10	60	20
Bread stuffing, Paxo (Campbell Soup Co Ltd., Toronto, Canada)	74	30	16
Barley Breads			
Coarse barley kernel bread, 75-80% kernels			
75% kernels	27	30	5
80% scalded intact kernels (20% white wheat flour)	34	30	7

80% intact kernels (20% white wheat flour)	40	30	8
mean of three studies	34±4		
Barley kernel bread, 50% kernels			
50% kernels (Canada)	43	30	9
50% kibbled barley (Australia)	48	30	10
mean of two studies	46±2	30	9
Barley flour breads			
100% barley flour (Canada); (rye bread composition)	67	30	9
bread (20% white wheat flour) (Sweden)	67	30	13
Wholemeal barley bread, flat, thin, soft (50% regular barley flour, 50% high-fibre barley flour) (Sweden)	50	30	7
Wholemeal barley bread, flat, thin, soft (20% regular barley flour, 80% high-fibre barley flour) (Sweden) and white wheat flour (20%) breads - fermented or with added organic acids or salts (Sweden) (used as reference for the 5 breads below)	43	30	5
Wholemeal barley flour bread with sourdough (lactic acid)	70	30	14
Wholemeal barley flour bread with lactic acid	53	30	10
Wholemeal barley flour bread with calcium lactate	66	30	12
Wholemeal barley flour bread with sodium propionate ⁵	59	30	12
with higher dose sodium propionate	65	30	13
	57	30	11
Buckwheat bread			
dehusked buckwheat groats and 50% white wheat flour (Sweden)	47	30	10
Fruit Breads			
Continental fruit loaf, wheat bread with dried fruit (Australia)	47±6	30	7
pecan bread) (Natural Ovens, Mannitowoc, WI, USA)	63±5	30	9

mix in bread making machine (Con Agra Inc., USA)	54±6	30	7
Hamburger bun (Loblaws, Toronto, Canada)	61	30	9
Kaiser rolls (Loblaws, Canada)	73	30	12
Foods Canada Inc., Etobicoke, Canada)	70	30	16
Gluten-free bread			
unsliced (gluten-free wheat starch) (UK)	71	30	11
Gluten-free white bread, sliced (gluten-free wheat starch) (UK)	80	30	12
mean of two studies	76±5	30	11
unsliced (gluten-free wheat starch, soya bran) (UK)	69	30	9
(gluten-free wheat starch, soya bran) (UK)	76	30	10
mean of two studies	73±4	30	9
Oat Bread			
intact oat kernels and 20% white wheat flour (Sweden)	65	30	12
Oat bran bread			
50% oat bran (Australia)	44	30	8
45% oat bran and 50% wheat flour (Sweden)	50	30	9
mean of two studies	47±3	30	9
Rice bread			
rice (Pav's Allergy Bakery, Ingleburn, NSW, Australia)	72±9	30	8
Doongara rice (Pav's Allergy Bakery, Australia)	61±9	30	7
Rye Bread			
Rye kernel (pumpernickel) bread intact kernels and 20% white wheat flour (Sweden)	41	30	5
Rye kernel bread (Pumpernickel) (Canada)	41	30	5
(Holtzheuser Brothers Ltd., Toronto, Canada)	46	30	5
Rye kernel bread, Pumpernickel (80% kernels) (Canada)	55	30	7

Cocktail, sliced (Kasselar Food Products, Toronto, Canada)	55	30	7
Cocktail, sliced (Kasselar Food Products, Canada)	62	30	8
mean of six studies	50±4	30	6
Wholemeal rye bread			
Wholemeal rye bread (Canada)	41		
Wholemeal rye bread (Canada)	62		
Wholemeal rye bread (Canada)	63		
Wholemeal rye bread (Canada)	66		
mean of four studies	58±6	30	8
Specialty rye breads			
Specialty Bakery, Sydney, NSW, Australia)	76±14	30	10
(Dimpflmeier Bakery Ltd., Canada)	67	30	9
Light rye (Silverstein's Bakery, Toronto, Canada)	68	30	10
Linseed rye (Rudolph's Specialty Bakery Ltd., Toronto, Canada)	55	30	7
Sourdough rye (Canada)	57		
Sourdough rye (Australia)	48		
mean of two studies	53±5	30	6
bread (Dimpflmeier Bakery Ltd., Canada)	56	30	7
Wheat Breads			
intact kernels and 20% white wheat flour (Sweden)	52	30	10
Cracked wheat kernel (bulgur) bread			
50% cracked wheat kernel (Canada)	58	30	12
75% cracked wheat kernels (Canada)	48	30	10
mean of two studies	53±3	30	11
Spelt wheat breads			
White spelt wheat bread (Slovenia)	74	30	17

Wholemeal spelt wheat bread (Slovenia)	63	30	12
Scalded spelt wheat kernel bread (Slovenia)	67	30	15
Spelt multigrain bread® (Pav's bakery, Australia)	54±10	30	7
White wheat flour bread			
White flour (Canada)	69±5	30	10
White flour (USA)	70	30	10
White flour, Sunblest™ (Tip Top Bakeries, Australia)	70	30	10
White flour (Dempster's Corporate Foods Ltd., Canada)	71	30	10
White flour (South Africa)	71±7	30	9
White flour (Canada)	71	30	10
mean of six studies	70±0	30	10
White wheat flour bread, hard, toasted (Italian)	73	30	11
(Interstate Brands Companies, Kansas City, MO, USA)	71±9		
(Interstate Brands Companies, USA)	72±4		
(Interstate Brands Companies, USA)	77±3		
mean of three studies	73±2	30	10
mean of two studies	68±1	30	9
Wholemeal (whole wheat) wheat flour bread			
Wholemeal flour (Canada)	52	30	6
Wholemeal flour (Canada)	64	30	8
Wholemeal flour (Canada)	65	30	8
Wholemeal flour (Canada)	67	30	8
Wholemeal flour (Canada)	67	30	8
Wholemeal flour (Canada)	69	30	8
Wholemeal flour (Canada)	71	30	8
Wholemeal flour (Canada)	72±6	30	8

Wholemeal flour (USA)	73	30	10
Wholemeal flour (South Africa)	75±9	30	9
Specialty wheat breads			
English Muffin™ bread (Natural Ovens, USA)	77±7	30	11
Healthy Choice™ Hearty 7 Grain (Con Agra Inc., USA)	55±6	30	8
Healthy Choice™ Hearty 100% Whole Grain (Con Agra Inc., USA)	62±6	30	9
Hunger Filler™, whole grain bread (Natural Ovens, USA)	59±8	30	7
Nutty Natural™, whole grain bread (Natural Ovens, USA)	59±7	30	7
Semolina Bread (Kenya)			
packet mix in bread maker) (Con Agra Inc., USA)	64		
Stay Trim™, whole grain bread (Natural Ovens, USA)	50±6	30	5
(Ryvita Co Ltd., Poole, Dorset, UK)	70±10	30	10
100% Whole Grain™ bread (Natural Ovens, USA)	74	30	16
White wheat flour flatbread (Sweden)	51±11	30	7
	79	30	13
Unleavened Breads			
Lebanese bread, white (Seda Bakery, Sydney, NSW, Australia)	75±9	30	12
Middle Eastern flatbread	97±29	30	15
Pita bread, white (Canada)	57	30	10
Wheat flour flatbread (India)	66±9	30	10
Amaranth : wheat (25:75) composite flour flatbread (India)	66±10	30	10
Amaranth : wheat (50:50) composite flour flatbread (India)	76±20	30	11

BREAKFAST CEREALS AND RELATED

All-Bran™ (high-fiber, extruded wheat bran cereal)			
All-Bran™ (Kellogg's, Pagewood, NSW, Australia)	30	30	4
All-Bran™ (Kellogg's, Battle Creek, MI, USA)	38	30	9

All-Bran™ (Kellogg's Inc., Etobicoke, Canada)	50	30	9
All-Bran™ (Kellogg's Inc., Canada)	51±5	30	9
mean of four studies	42±5		
Barley porridge			
Wholemeal barley flour porridge (100% regular barley) (flour:water = 1:3), boiled 2.5 min (Sweden)	68	50 (dry)	23
Wholemeal high-fibre barley flour porridge (50% regular barley flour: 50% high-fibre barley flour) (Sweden)	55	50 (dry)	8
steamed thin (0.5 mm) dehulled barley flakes (Sweden)	62	50 (dry)	17
steamed thick (1.0 mm) dehulled barley flakes (Sweden)	65	50 (dry)	18
Bran Buds™ (Kellogg's Inc., Canada) ¹⁵	58	30	7
Bran Buds with psyllium (Kellogg's Inc., Canada)	47	30	6
Bran Chex™ (Nabisco Brands Ltd., Toronto, Canada)	58	30	11
Bran Flakes™ (Kellogg's, Australia)	74	30	13
Cheerios™ (General Mills Inc., Etobicoke, Canada) ¹⁵	74	30	15
Chocapic™ (Nestlé, France)	84±9	30	21
Coco Pops™ (cocoa flavoured puffed rice)			
Coco Pops™ (Kellogg's, Australia)	77±8		
Coco Pops™ (Kellogg's, Australia)	77±3		
mean of two studies Canada, Peterborough, Canada) ¹⁵	77	30	20
Canada) ¹⁵	75	30	15
Corn Chex™ (Nabisco Brands Ltd., Canada) ¹⁵	83	30	21
Cornflakes™			
Cornflakes™ (Kellogg's, Auckland, New Zealand)	72±16	30	18
Cornflakes™ (Kellogg's, Australia)	77	30	20
Cornflakes™ (Kellogg's Inc., Canada)	80±6	30	21

Cornflakes™ (Kellogg's Inc., Canada)	86	30	22
Cornflakes™ (Kellogg's, USA) ⁵	92	30	24
mean of five studies (Presidents Choice, Sunfresh Ltd., Toronto, Canada)	81±3	30	21
Cornflakes, Crunchy Nut™ (Kellogg's, Australia)	74	30	17
	72±4	30	17
Corn Pops™ (Kellogg's, Australia)	80±4	30	21
Cream of Wheat™ (Nabisco Brands Ltd., Canada) ¹⁵	66	250	17
Cream of Wheat™, Instant (Nabisco Brands Ltd., Canada) ¹⁵	74	250	22
Crispix™ (Kellogg's Inc., Canada) ¹⁵	87	30	22
Energy Mix™ (Quaker, France)	80±7	30	19
Froot Loops™ (Kellogg's, Australia)	69±9	30	18
Frosties™, sugar-coated cornflakes (Kellogg's, Australia)	55	30	15
Fruitful Lite™ (Hubbards, Auckland, New Zealand)	61±20	30	12
Fruity-Bix™, berry (Sanitarium, Auckland, New Zealand)	113±10	30	25
Golden Grahams™ (General Mills Inc., Canada)	71	30	18
Golden Wheats™ (Kellogg's, Australia)	71±8	30	16
Grapenuts™			
Grapenuts™ (Post, Kraft General Foods Inc., Toronto, Canada)	67	30	13
Grapenuts™ (Kraft Foods Inc., Port Chester, NY, USA)	75±6	30	16
mean of two studies	71±4	30	15
Grapenuts™ Flakes (Post, Kraft General Foods Inc., Canada) ¹⁵	80	30	17
Honey Smacks™ (Kellogg's, Australia)	71±10	30	16
Hot cereal, apple & cinnamon (Con Agra Inc., USA)	37±6	30	8
Hot cereal, unflavoured (Con Agra Inc., USA)	25±5	30	5
Just Right™ (Kellogg's, Australia)	60±15	30	13
Just Right Just Grains™ (Kellogg's, Australia)	62±11	30	14

Komplete™ (Kellogg's, Australia)	48±5	30	10
Life™ (Quaker Oats Co., Canada) ¹⁵	66	30	16
Mini Wheats™, whole wheat (Kellogg's, Australia)	58±8	30	12
Mini Wheats™, blackcurrant (Kellogg's, Australia)	72±10	30	15
Muesli			
Muesli, NS (Canada)	66±9	30	16
Alpen Muesli (Wheetabix, France)	55±10	30	10
Foods, Cheltenham, Vic, Australia) with 1.5% fat milk	39±6	30	7
Muesli, Lite (Sanitarium, New Zealand)	54±12	30	10
Muesli, Natural (Sanitarium, New Zealand)	57±9	30	11
Muesli, Natural (Sanitarium, Australia)	40±6	30	8
mean of two studies	49±9	30	10
Nutrigrain™ (Kellogg's, Australia)	66±12	30	10
Oat 'n Honey Bake™ (Kellogg's, Australia)	77±11	30	13
Oat bran			
Oat bran, raw (Quaker Oats Co., Canada)	50	10	2
Oat bran, raw	59	10	3
mean of two studies	55±5	10	3
Porridge made from rolled oats			
Porridge (Uncle Toby's, Australia) ¹³	42	250	9
Porridge (Canada)	49±8	250	11
Whole Foods, Box Hill, Vic, Australia)	51±8	250	11
Porridge (Hubbards, New Zealand)	58±9	250	12
Porridge (Australia)	58±4	250	12
Porridge (Canada)	62	250	14
Porridge (Canada)	69	250	16

Porridge (USA)	75	250	17
mean of eight studies (flour:water = 1:3), boiled 2.5 min (Sweden)	58±4	250	13
(1.0 mm) dehulled oat flakes (Sweden)	74	50 (dry)	24
thin (0.5 mm) dehulled oat flakes (Sweden)	55	250	15
thick (1.0 mm) dehulled oat flakes (Sweden)	69	250	19
and steamed thin (0.5 mm) dehulled oat flakes (Sweden)	50	250	14
steamed thick (1.0 mm) dehulled oat flakes (Sweden)	80	250	22
	53	250	14
Instant Porridge			
Quick Oats (Quaker Oats Co., Canada)	65		
One Minute Oats (Quaker Oats Co., Canada)	66		
mean of two studies	66±1	250	17
Pop Tarts™, Double Chocolate (Kellogg's, Australia)	70±2	50	25
Pro Stars™ (General Mills Inc., Canada)	71	30	17
Puffed Wheat			
Puffed Wheat (Quaker Oats Co., Canada)	67	30	13
Puffed Wheat (Sanitarium, Australia)	80±11	30	17
mean of two studies	74±7	30	16
Raisin Bran™ (Kellogg's, USA)	61±5	30	12
Red River Cereal (Maple Leaf Mills, Toronto, Canada)	49	30	11
Growers Co-Operative Ltd., Leeton, NSW, Australia)	19±3	30	3
Rice Bubbles™ (puffed rice)			
Rice Bubbles™ (Kellogg's, Australia) ¹³	81		
Rice Bubbles™ (Kellogg's, Australia)	85±3		
Rice Bubbles™ (Kellogg's, Australia)	95		
mean of three studies	87±4	30	22

Rice Chex™ (Nabisco Brands Ltd., Canada) ¹⁵	89	30	23
Rice Krispies™ (Kellogg's Inc., Canada) ¹⁵	82	30	21
Shredded Wheat		30	22
Shredded Wheat (Canada)	67±10	30	13
Shredded Wheat™ (Nabisco Brands Ltd., Canada)	83	30	17
mean of two studies cereal varies in different countries	75±8	30	15
Special K™ (Kellogg's, Australia)	54±4	30	11
Special K™ (Kellogg's, USA)	69±5	30	14
Special K™ (Kellogg's, France)	84±12	30	20
Sultana Bran™ (Kellogg's, Australia)	73±13	30	14
Sustain™ (Kellogg's, Australia) ¹³	68	30	15
Team™ (Nabisco Brands Ltd., Canada) ¹⁵	82	30	17
Thank Goodness™ (Hubbards, New Zealand)	65±18	30	15
Total™ (General Mills Inc., Canada) ¹⁵	76	30	17
Wheat biscuits (plain flaked wheat)			
Weetabix™ (Weetabix of Canada Ltd.)	75±10	30	16
Whole wheat Goldies™ (Kellogg's, Australia)	70±4	30	14
mean of seven studies Wheat biscuits (flaked wheat) with additional ingredients	70±2	30	13
Oat bran Weet-Bix™ (Sanitarium, Australia)	57±4	30	11
Sultana Goldies™ (Kellogg's Australia)	65±6	30	13
BREAKFAST CEREAL BARS			
CEREAL GRAINS			
Amaranth Amaranth (Amaranthus esculentum) popped,	97±19	30	21

eaten with milk and non-nutritive sweetener (India)

Barley

Pearl Barley

Barley, pearled (Canada) 22

Barley (Canada) 22
water 20 min (Gouda's foods, Concord, Canada) 25±2

Barley (Canada) 27

Barley, pearled (Canada) 29

mean of five studies 25±1 150 11

Barley (*Hordeum vulgare*) (India) 37

Barley (*Hordeum vulgare*) (India) 48

mean of two groups of subjects 43±6 150 26

Barley, cracked (Malthouth, Tunisia) 50 150 21

Barley, rolled (Australia) 66±5 50 (dry) 25

Buckwheat

Buckwheat (Canada) 49

Buckwheat (Canada) 51±10

Buckwheat (Canada) 63

mean of three studies 54±4 150 16

hydrothermally treated, dehusked, boiled 12 min 45 150 13

Corn/Maize

Maize (*Zea Mays*), flour made into chapatti (India) 59

Maize meal porridge/gruel (Kenya) 109

Cornmeal

2 min (McNair Products Co. Ltd., Toronto, Canada) 68 150 9

Cornmeal + margarine (McNair Products Co. Ltd., Canada) 69 150 9

mean of two studies	69±1	150	9
Sweet corn			
Sweet corn, 'Honey & Pearl' variety (New Zealand)	37±12	150	11
Sweet corn, on the cob, boiled 20 min (Australia)	48	150	14
Sweet corn (Canada)	59±11	150	20
Sweet corn (USA)	60	150	20
Sweet corn (USA)	60	150	20
Sweet corn (South Africa)	62±5	150	20
mean of six studies	53±4	150	17
canned, diet-pack, drained (Featherweight, USA)	46	150	13
Sweet corn, frozen, reheated in microwave (Green Giant Pillsbury Ltd., Toronto, Canada)	47	150	16
baked (Old El Paso Foods Co., Toronto, Canada)	68	20	8
Couscous			
East Food Products Co., Leominster, MA, USA)	61		
Couscous, boiled 5 min (Tunisia)	69		
mean of two studies	65±4	150	23
Millet			
Millet, boiled (Canada)	71±10	150	25
Millet flour porridge (Kenya)	107		
Rice, white			
Rice brand, Rice Growers Co-Op., Australia)	69±7	150	36
White (<i>Oryza sativa</i>), boiled (India)	69±15	150	30
Rice, boiled white, type NS			
Type NS, eaten alone (France)	45	150	14
Type NS (India)	48	150	18

Type NS (Canada)	51	150	21
Type NS (France)	52	150	19
Type NS (Canada)	56	150	23
Type NS (Pakistan)	69	150	26
Type NS (Canada)	72±9	150	30
Type NS, boiled in salted water (India)	72	150	27
Type NS, boiled 13 min (Italy)	102	150	31
Type NS (Kenya)	112	150	47
Type NS, boiled (France)	43	150	13
Type NS, boiled (France)	47	150	14
mean of 12 studies refrigerated 16-20h, reheated (India)	64±7	150	23
Type NS, boiled 13 min, then baked 10 min (Italy)	53	150	20
Type NS, boiled 13 min, then baked 10 min (Italy)	104	150	31
Long grain, boiled			
Long grain, boiled 5 min (Canada)	41	150	16
Long grain, white (Uncle Bens, Auckland, New Zealand)	56±7	150	24
Long grain, boiled 25 min (Surinam)	56±2	150	24
Gem long grain (Dainty Food Inc., Canada)	57	150	23
Long grain, boiled 15 min Gem long grain (Dainty Food Inc., Canada)	58	150	23
Gem long grain (Dainty Food Inc., Canada)	60	150	24
Gem long grain (Dainty Food Inc., Canada)	60	150	24
(Star brand, Gouda foods, Concord, Canada)	64±3	150	26
mean of 10 studies	56±2	150	23
Rice, long grain, quick-cooking varieties			
cooking time (Uncle Ben's, Masterfoods, Belgium)	68±6	150	25
cooking time (Uncle Ben's, Masterfoods, Belgium)	75±7	150	28

microwaved 2 min (Express Rice, plain, Uncle Ben's, Masterfoods King's Lynn, Norfolk, UK)	52±5	150	19
Rice, specialty rices			
Cajun Style, Uncle Ben's® (Effem Foods Ltd., Bolton, Canada)	51	150	19
Garden Style, Uncle Ben's® (Effem Foods Ltd., Canada)	55	150	21
Ben's® (Effem Foods Ltd., Canada)	54	150	20
Ben's® (Effem Foods Ltd., Canada)	58	150	22
Saskatchewan wild rice (Canada)	57	150	18
rice cooker (Lion Foods, Bangkok, Thailand)	86±10	150	37
rice cooker (Bangsue Chia Meng Rice Mill, Bangkok, Thailand)	98±7	150	31
cooked in rice cooker (Golden World Foods, Bangkok, Thailand)	109±10	150	46
Rice, white low-amylose			
boiled (Rice Growers Co-op., Australia)	83±13	150	36
Sungold, Pelde, parboiled (Rice Growers Co-op., Australia)	87±7	150	37
Waxy (0-2% amylose) (Rice Growers Co-op., Australia)	88±11	150	38
Pelde, white (Rice Growers Co- op., Australia)	93±11	150	40
White, low-amylose, boiled (Turkey)	139	150	60
Rice, white high-amylose			
Bangladeshi rice variety BR16 (28% amylose)	37	150	14
white, long-grain (27% amylose), boiled 17.5 min	39	150	15
mean of two studies	38	150	15
Doongara, white (Rice Growers Co-op., Australia)	50±6		
Doongara, white (Rice Growers Co-op., Australia)	64±9		
Doongara, white (Rice Growers Co-op., Australia)	54±7		
mean of three studies	56±4	150	22
short-grain, boiled 15 min then steamed 10 min (Japan)	48±8	150	18

Basmati			
(Mahatma brand, Sydney, NSW, Australia)	58±8	150	22
pouch, white, reheated in microwave, Uncle Ben's Express® (Masterfoods, Kings Lynn, Norfolk, UK)	57±4	150	24
cooked 10 min, Uncle Ben's Superior (Masterfoods Olen,	60±5	150	23
Rice, brown			
Brown (Canada)	66±5	150	21
Brown, steamed (USA)	50	150	16
Brown (Oriza Sativa), boiled (South India) ⁵	50±19	150	16
mean of three studies	55±5	150	18
Calrose brown (Rice Growers Co-op., Australia)	87±8	150	33
Doongara brown, high amylose (Rice Growers Co-op., Australia)	66±7	150	24
Pelde brown (Rice Growers Co-op., Australia)	76±6	150	29
Ben's Natur-reis® (Masterfoods Olen, Belgium)	64±7	150	23
Sunbrown Quick™ (Rice Growers Co-op., Australia)	80±7	150	31
Instant/puffed rice			
Instant rice, white, boiled 1 min (Canada)	46	150	19
Instant rice, white, cooked 6 min (Trice brand, Australia)	87	150	36
Uncle Ben's Snabbris® (Masterfoods Olen, Belgium)	74±5	150	31
mean of three studies	69±12	150	29
5 min (Rice Growers Co-op., Australia)	94±7	150	35
Parboiled rice			
Parboiled rice (Canada)	48	150	18
Parboiled rice (USA)	72	150	26
Converted, white, Uncle Ben's® (Effem Foods Ltd., Canada)	45	150	16
min, Uncle Ben's® (Masterfoods USA, Vernon, CA)	38	150	14

boiled 20-30 min, Uncle Ben's® (Masterfoods USA)	50	150	18
Boiled, 12 min (Denmark) ⁶	39	150	14
Boiled, 12 min (Denmark)	42	150	15
Boiled, 12 min (Denmark)	43	150	16
Boiled, 12 min (Denmark)	46	150	17
Long grain, boiled 5 min (Canada)	38	150	14
Long grain, boiled, 10 min (USA)	61	150	22
Long grain, boiled 15 min (Canada)	47	150	17
Long grain, boiled 25 min (Canada)	46	150	17
mean of thirteen studies	47±3	150	17
Parboiled rice, eaten as part of a traditional Indian meal (India) ⁵	99		
Parboiled, low-amylose Bangladeshi rice variety BR2, parboiled (12% amylose)	51	150	19
Sungold (Rice Growers Co-op., Australia)	87±7	150	34
Parboiled, high-amylose Doongara (Rice Growers Co-op., Australia)	50±6	150	19
Bangladeshi rice variety BR16, parboiled (28% amylose)	35	150	13
traditionally parboiled (27% amylose)	32	150	12
pressure parboiled (27% amylose)	27	150	11
Bangladeshi rice variety BR4, parboiled (27% amylose)	33	150	13
Mean of 5 studies	35±4	150	14
Rye, whole kernels			
Rye, whole kernels (Canada) cooked (15 psi) 30 min in 2 L water (Canada)	29	50 (dry)	11
	34	50 (dry)	13
Rye, whole kernels (Canada)	39	50 (dry)	15
mean of three studies	34±3	50 (dry)	13

Wheat

Wheat, whole kernels			
Wheat, whole kernels (Triticum aestivum) (India) ¹¹	30±9	50 (dry)	11
Wheat, whole kernels (Canada)	42	50 (dry)	14
cooked (15 psi) 30 min in 2 L water (Canada)	44	50 (dry)	14
Wheat, whole kernels (Canada)	48	50 (dry)	16
mean of four studies	41±3	50 (dry)	14
Wheat, type NS(India)	90	50 (dry)	34
Wheat, precooked kernels			
cooked 20 min (Ebly, Chateaudun, France)	52±4	50 (dry)	19
Durum wheat, precooked, cooked 10 min (Ebly, France)	50±5	50 (dry)	17
pouch, reheated in microwave, Ebly Express (Ebly, France)	40±5	125	16
Quick cooking (White Wings, Sydney, NSW, Australia)	54±11	150	25
Semolina			
then gelatinised with water (India)	55±9		
Semolina, steamed and gelatinised (India)	54±13		
mean of two studies	55±1	150	6
Cracked wheat (bulgur/bourghul)			
Bulgur, boiled (Canada)	46		
Bulgur, boiled in 800 mL water 20 min (Canada)	46		
Bulgur, boiled 20 min (Canada)	46		
Bulgur, boiled 20 min (Canada)	53		
mean of four studies	48±2	150	12
COOKIES			
	Arrowroot		
Interbare Foods, Toronto, Canada)	63	25	13

Arrowroot plus (McCormicks's, Canada)	62	25	11
Milk Arrowroot™ (Arnotts, Sydney, NSW, Australia)	69±7	25	12
mean of three studies	65±2	25	12
Barquette Abricot (LU, Ris, Orangis, France)	71±6	40	23
Bebe Dobre Rano Chocolate (Opavia/LU, Czech Republic)	57±9	50	19
Hazelnuts (Opavia/LU, Czech Republic)	51±9	50	17
Bebe Jemne Susenky (Opavia/LU, Czech Republic)	67±11	25	14
Digestives			
Digestives (Canada)	55		
Digestives (Canada)	59±7		
Digestives, Peak Freans (Nabisco Ltd., Toronto, Canada)	62		
mean of three studies	59±2	25	10
starch) (Nutricia Dietary Care Ltd., Redish, Stockport, UK)	58	25	10
Evergreen met Krenten (LU, Netherlands)	66±12	38	14
Golden Fruit (Griffin's Foods Ltd., Auckland, New Zealand)	77±25	25	13
Graham Wafers (Christie Brown & Co., Toronto, Canada)	74	25	14
Gran'Dia Banana, Oats and Honey (LU, Brazil)	28±5	30	6
Grany en-cas Abricot (LU, France)	55±6	30	9
Grany en-cas Fruits des bois (LU, France)	50±5	30	7
Grany Rush Apricot (LU, Netherlands)	62±3	30	12
Highland Oatmeal™ (Westons biscuits, Sydney, NSW, Australia)	55±8	25	10
Shortbread Ltd., Aberlour-on-Spey, Scotland)	57	25	8
LU P'tit Déjeuner Chocolat (LU, France)	42±5	50	14
LU P'tit Déjeuner Miel et Pépites Chocolat (LU, France)	45±5	50	16
LU P'tit Déjeuner Miel et Pépites Chocolat (LU, France)	52±3	50	18
LU P'tit Déjeuner Miel et Pépites Chocolat (LU, France)	49±8	50	18

mean of three studies	49±2	50	17
Maltmeal wafer (Griffin's Foods Ltd., New Zealand)	50±10	25	9
Morning Coffee™ (Arnotts, Australia)	79±6	25	15
Nutrigrain Fruits des bois (Kellogg's, France)	57±4	35	13
Oatmeal (Canada)	54±4	25	9
Oro (Saiwa, Italy)	61±9	40	20
Oro (Saiwa, Italy)	67±17	40	21
mean of two studies	64±3	40	20
Petit LU Normand (LU, France)	51±3	25	10
Petit LU Roussillon (LU, France)	48±4	25	9
Prince Energie+ (LU, France)	73±5	25	13
Prince fourré chocolat (LU, France)	53±5		
Prince fourré chocolat (LU, France)	50±5		
mean of two studies	52±2	45	16
Prince Meganana Chocolate (LU, Spain)	49±12	50	18
Prince Petit Déjeuner Vanille (LU, France and Spain)	45±6	50	16
Rich Tea (Canada)	55±4	25	10
Sablé des Flandres (LU, France)	57±10	20	8
Shortbread (Arnotts, Australia)	64±8	25	10
Shredded Wheatmeal™ (Arnotts, Australia)	62±4	25	11
Snack Right Fruit Slice (97% fat-free) (Arnott's, Australia)	45±3	25	9
Thé (LU, France)	41±7	20	6
Vanilla Wafers (Christie Brown & Co., Canada)	77	25	14
Véritable Petit Beurre (LU, France)	51±8	25	9

CRACKERS

Breton wheat crackers (Dare Foods Ltd., Kitchener, Canada)	67	25	10
gluten-free (Real Foods, St Peters, NSW, Australia)	87±10	25	18
Cream Cracker (LU Triumfo, Brazil)	65±11	25	11
High-calcium cracker (Danone, Malaysia)	52±8	25	9
Jatz™, plain salted craker biscuits (Arnotts, Australia)	55±5	25	10
Puffed Crispbread (Westons, Australia)	81±9	25	15
Puffed rice cakes			
Growers Co-op., Leeton, NSW, Australia)	82±11	25	17
amylose) (Rice Growers Co-op., Australia)	91±7	25	19
amylose) (Rice Growers Co-op., Australia)	61±5	25	13
mean of three studies	78±9	25	17
Rye crispbread			
Rye crispbread (Canada)	63	25	10
Ryvita™ (Canada)	69±10	25	11
Company Ltd., Poole, Dorset, UK)	59	25	9
Rye crispbread (Ryvita Company Ltd., UK)	63	25	11
mean of four studies	64±2	25	11
(Players Biscuits, Sydney, NSW, Australia)	71±7	25	12
Sao™, plain square crackers (Arnotts, Australia)	70±9	25	12
Stoned Wheat Thins (Christie Brown & Co., Canada)	67	25	12
Water cracker			
Water cracker (Canada)	63±9	25	11
Water cracker (Arnotts, Australia)	78±11	25	14
mean of two studies	71±8	25	13
Premium Soda Crackers (Christie Brown & Co., Canada)	74	25	12
Vita-wheat™, original, crispbread (Arnott's, Australia)	55±4	25	10

DAIRY PRODUCTS AND ALTERNATIVES

Custard			
mean of three studies	38±2	100	6
Ice cream, Regular/NS			
Ice cream, NS (Canada)	36±8		
Ice cream (half vanilla, half chocolate) (Italy)	57		
Ice cream, NS(USA)	62		
Ice cream, chocolate flavored (USA)	68±15		
Ice cream (half vanilla, half chocolate) (Italy)	80		
mean of five studies	61±7	50	8
Ice cream, Reduced- or Low-fat			
Ice cream, low-fat, vanilla, 'Light' (Peter's, Sydney, NSW, Australia)	50±8	50	3
Prestige Light rich vanilla (Norco, Lismore, NSW, Australia)	47±5	50	5
Prestige Light traditional toffee (Norco, Australia)	37±4	50	5
fat), Prestige golden macadamia (Norco, Australia)	39±3	50	5
Ice cream, Premium (high-fat)			
chocolate, 15% fat (Sara Lee, Gosford, NSW, Australia)	37±3	50	4
vanilla, 16% fat (Sara Lee, Australia)	38±3	50	3
Milk, full-fat			
Full-fat (Italy)	11		
Full-fat (3% fat, Skånemejerier, Malmö, Sweden) ⁶	21		
Full-fat (Italy)	24		
Farmers, Sydney, NSW, Australia)	31±2		
Full-fat (Canada)	34±6		

Full-fat (USA)	40		
mean of five studies	27±4	250	3
milk, långfil, 3% fat (Arla, Gävle, Sweden)	11		
3% fat) (Skånemejerier, Malmö, Sweden)	11		
mean of two foods	11		
Milk, full-fat, plus bran			
Full-fat + 20g wheat bran (Italy)	25		
Full-fat + 20g wheat bran (Italy)	28		
mean of two studies	27±2	250	3
Milk, skim (Canada)	32±5	250	4
Milk, condensed, sweetened (Nestlé, Sydney, NSW, Australia)	61±6	50	17
aspartame, Lite White™ (Dairy Farmers, Australia)	24±6	250	3
sugar, Lite White™ (Dairy Farmers, Australia)	34±4	250	9
from commercial mousse mix with water			
Butterscotch, 1.9% fat (Nestlé, Australia)	36±4	50	4
Chocolate, 2% fat (Nestlé, Australia)	31±4	50	3
Hazelnut, 2.4% fat (Nestlé, Australia)	36±4	50	4
Mango, 1.8% fat (Nestlé, Australia)	33±5	50	4
Mixed berry, 2.2% fat (Nestlé, Australia)	36±5	50	4
Strawberry, 2.3% fat (Nestlé, Australia)	32±3	50	3
mean of six foods	34±1	50	4
Pudding			
powder and whole milk (White Wings, Sydney, NSW, Australia)	47±4	100	7
powder and whole milk (White Wings, Australia)	40±4	100	6
mean of two foods	44±4	100	7
Yoghurt			

Yoghurt, type NS (Canada)	36±4	200	3
Low-fat yoghurt			
Low-fat, fruit, aspartame, Ski™ (Dairy Farmers, Australia)	14±4	200	2
Low-fat, fruit, sugar, Ski™ (Dairy Farmers, Australia)	33±7	200	10
strawberry (Ski d'lite™, Dairy Farmers, Australia)	31±14	200	9
Non-fat yoghurt, sweetened with acesulfame K and Splenda			
mean of five foods	24±1	200	3
Reduced-fat yoghurt			
Reduced-fat, Vaalia™, apricot & mango (Pauls Ltd., Australia)	26±4	200	8
Reduced-fat, Vaalia™, french vanilla (Pauls Ltd., Australia)	26±4	200	3
Reduced-fat, Extra-Lite™, strawberry (Pauls Ltd., Australia)	28±4	200	9
mean of three foods	27±1	200	7
Vaalia™, tropical passionfruit (Pauls Ltd., Australia)	38±4	200	11
Soy-based dairy product alternatives			
Soy milks (containing maltodextrin)			
calcium, Original (So Natural Foods, Taren Point, NSW,	44±5	250	8
calcium, Calciforte (So Natural Foods, Australia)	36±4	250	6
mg calcium, Light (So Natural Foods, Australia)	44±3	250	8
Soy milk drinks			
mean of two drinks	32±2	250	7
Soy yoghurt			
2% fat, sugar (So Natural Foods, Australia)	50±3	200	13
chocolate with high-fructose (24%) corn syrup (USA)	115±14	50	10

FRUIT AND FRUIT PRODUCTS

Apples, raw

Apple, NS (Denmark)	28	120	4
Apple, Braeburn (New Zealand)	32±4	120	4
Apple, NS (Canada)	34	120	5
Apple, Golden Delicious (Canada)	39±3	120	6
Apple, NS(USA)	40	120	6
Apple, NS (Italy)	44	120	6
mean of six studies	38±2	120	6
Apple juice reconstituted (Berrivale Orchards Ltd, Berri, SA,	39±5	250	10
Apple juice, unsweetened (USA)	40	250	12
Apple juice, unsweetened (Allens, Toronto, Canada)	41	250	12
mean of three studies	40±1	250	11
Apple, dried (Australia)	29±5	60	10
Apricots			
Apricots, raw, NS (Italy) (Riviera, Aliments Caneast Foods, Montreal, Canada)	57	120	5
	64	120	12
Apricots, dried (Australia)	30±7	60	8
Apricots, dried (Wasco foods, Montreal, Canada)	32	60	10
mean of two studies	31±1	60	9
apricot filling in wholemeal pastry (Mother Earth, Auckland, New Zealand)	50±8	50	17
sugar (Glen Ewin Jams, Para Hills, SA, Australia)	55±7	30	7
mineral enriched dried fruit snack (Blackmores Ltd., Balgowlah, NSW, Australia)	42±3	15	5
Banana, raw			
Banana (Canada)	46	120	12

Banana (Italy)	58	120	13
Banana (Canada)	58	120	15
Banana (Canada)	62±9	120	16
Banana (South Africa)	70±5	120	16
Banana, ripe (all yellow) (USA)	51	120	13
Banana, under-ripe (Denmark)	30	120	6
(yellow with green sections)			
(USA)	42	120	11
Banana, over-ripe (yellow			
flecked with brown) (USA)	48	120	12
Banana, over-ripe (Denmark)	52	120	11
mean of 10 studies	52±4	120	12
Cranberry juice			
Cranberry juice cocktail (Ocean			
Spray, Melbourne, Vic, Australia)	52±3	250	16
Spray Inc., Lakeville-Middleboro,			
MA, USA)	68±3	250	24
Spray® (Gerber Ltd.,			
Bridgewater, Somerset, UK)	56±4	250	16
Custard apple, raw, flesh only			
(Australia)	54±2	120	10
Dates, dried (Australia)	103±21	60	42
Maid brand (Ernest Hall & Sons,			
Sydney, NSW, Australia)	61±6	60	16
Canadian Cannery Ltd.,			
Hamilton, Canada)	55	120	9
Grapefruit, raw (Canada)	25	120	3
Grapefruit juice, unsweetened			
(Sunpac, Toronto, Canada)	48	250	9
Grapes, raw			
Grapes, NS (Canada)	43	120	7
Grapes, NS (Italy)	49	120	9
mean of two studies	46±3	120	8
Grapes, black, Waltham Cross			
(Australia)	59	120	11
Kiwi fruit, raw			

Kiwi fruit, Hayward (New Zealand)	47±4	120	5
Kiwi fruit (Australia)	58±7	120	7
mean of two studies	53±6	120	6
Lychee, canned in syrup and drained, Narcissus brand (China)	79±8	120	16
Mango, raw			
Mango (Mangifera indica) (Philippines)	41	120	8
Mango (Mangifera indica) (Australia)	51±3	120	8
Mango, ripe (Mangifera indica) (India)	60±16	120	9
mean of three studies	51±5	120	8
dessert, Frutia™ (Weis Frozen Foods, Toowong, Qld, Australia)	42±3	100	10
Marmalade, orange (Australia)	48±9	30	9
Oranges, raw			
Oranges, NS (Denmark)	31	120	3
Oranges, NS (South Africa)	33±6	120	3
Oranges, NS (Canada)	40±3	120	4
Oranges, NS (Italy)	48	120	5
Oranges (Sunkist, Van Nuys, CA, USA)	48	120	5
Oranges NS(Canada)	51	120	6
mean of six studies	42±3	120	5
Orange juice			
Orange Juice (Canada)	46±6	250	12
reconstituted concentrate, Quelch brand (Berri Ltd.,	53±6	250	9
Orange juice, reconstituted from frozen concentrate (USA)	57±6	250	15
mean of three studies	52±3	250	12
Paw paw/papaya, raw			
Paw paw (Carica papaya) (Australia) ⁶	56±6	120	5

Paw paw (papaya), ripe (India) ¹¹	60±16	120	17
Papaya (Carica papaya) (Philippines) ⁶	60	120	9
mean of three studies	59±1	120	10
Peaches			
Peach, raw (Canada)	28	120	4
Peach, raw (Italy)	56	120	5
mean of two studies	42±14	120	5
(Goulburn Valley, Ardmona Foods, Mooroopna, Vic, (SPC Ltd., Shepparton, Vic, Australia)	30±4	120	3
	45±6	120	5
mean of two studies	38±8	120	4
(Letona Foods, Hawthorn East, Vic, Australia)	58±11	120	9
(Delmonte, Canadian Cannery Ltd.)	52	120	9
syrup, SPC Lite (SPC Ltd., Australia)	62±9	120	11
Pears			
Pear, raw, NS(Canada)	33	120	4
Pear, Winter Nellis, raw (New Zealand) ⁶	34±4	120	4
Pear, Bartlett, raw (Canada)	41	120	3
Pear, raw, NS (Italy)	42	120	4
mean of four studies	38±2	120	4
sugar syrup, SPC Lite (SPC Ltd., Australia)	25±6	120	4
Pear halves, canned in natural juice (SPC Ltd., Australia)	43±15	120	5
Bartlett (Delmonte, Canadian Cannery Ltd.)	44	120	5
Pineapple			
Pineapple, raw (Australia)	66±7	120	6
Pineapple (Ananas comosus), raw (Philippines)	51	120	8
mean of two studies	59±8	120	7

(Dole Packaged Foods, Toronto, Canada)	46	250	15
Plums			
Plum, raw, NS (Canada)	24	120	3
Plum, raw, NS (Italy)	53	120	6
mean of two studies	39±15	120	5
Prunes, pitted (Sunsweet Growers Inc., Yuba City, CA, USA)	29±4	60	10
Raisins (Canada)	64±11	60	28
Rockmelon/Cantaloupe, raw (Australia)	65±9	120	4
Strawberries, fresh, raw (Sydney, NSW, Australia)	40±7	120	1
Strawberry jam	51±10	30	10
Real Fruit Bars (Uncle Toby's, Australia)	90±12	30	23
Sultanas	56±11	60	25
Tomato juice, no added sugar (Berri Ltd., Berri, SA, Australia)	38±4	250	4
frozen fruit dessert (Nestlé, Sydney, NSW, Australia)	59±8	100	12
Watermelon, raw (Australia) and mineral enriched dried fruit snack	72±13	120	4
	35±4	15	4

(Blackmores Ltd., Australia)

INFANT FORMULA AND WEANING

Formula			
(Wyeth Nutritionals, Baulkham Hills, NSW, Australia)	55±6	100 mL	4
with omega plus LCP oils (Nutricia, Auckland, New Zealand)	35±5	100 mL	2
Nan-1™ infant formula with iron (Nestlé, Sydney, NSW, Australia)	30±6	100 mL	2
S-26™ infant formula (Wyeth Nutritionals, Australia)	36±6	100 mL	3
Weaning Foods			
Farex™ baby rice (Heinz Wattie's Ltd., Malvern, Vic, Australia)	95±13	87	6

Robinsons First Tastes from 4 months (Nutricia, Wells, UK)			
Apple, apricot and banana cereal	56±8	75	7
Creamed porridge	59±8	75	5
Rice pudding	59±6	75	6
Heinz for Baby from 4 months (Heinz Wattie's Ltd., Australia)			
Chicken and noodles with vegetables, strained	67±11	120	5
Sweetcorn and rice	65±13	120	10
LEGUMES AND NUTS			
Baked Beans			
Baked Beans, canned (Canada) haricot/navy beans in tomato sauce (Libby, McNeill & Libby, Chatham, Canada)	40±3		
mean of two studies	56		
mean of two studies	48±8	150	7
Beans, dried, boiled			
Beans, dried, type NS(Italy)	36	150	11
Beans, dried, type NS(Italy)	20	150	6
mean of two studies	29±9	150	9
Blackeyed beans/peas (Cowpeas), boiled			
Blackeyed beans (Canada)	50	150	15
Blackeyed beans (Canada)	33±4	150	10
mean of two studies	42±9	150	13
Butter Beans			
Butter beans (South Africa)	28±7	150	5
Butter beans, dried, cooked 1.25 h (South Africa)	29±8	150	6
Butter beans (Canada)	36±4	150	7
mean of three studies	31±3	150	6

Butter beans, dried, boiled + 5g sucrose (South Africa)	30±2	150	6
Butter beans, dried, boiled + 10g sucrose (South Africa)	31±2	150	6
Butter beans, dried, boiled + 15g sucrose (South Africa)	54±4	150	11
Chickpeas (Garbanzo beans, Bengal gram), boiled dried, soaked, boiled 35 min (Philippines)	10	150	3
Chickpeas, dried, boiled (Canada)	31	150	9
Chickpeas (Canada)	33	150	10
Chickpeas (Canada)	36±5	150	11
mean of four studies (Lancia-Bravo Foods Ltd., Toronto, Canada)	28±6	150	8
(Canasia Foods Ltd., Scarborough, Canada)	42	150	9
	41	150	7
Haricot/Navy beans cooked at 15 psi for 25 min (King Grains, Toronto, Canada)	29	150	9
Haricot/Navy beans, dried, boiled (Canada)	30	150	9
Haricot/Navy beans, boiled (Canada)	31±6	150	9
Haricot/Navy beans (King Grains, Canada)	39	150	12
cooked at 15 psi for 25 min (King Grains, Canada)	59	150	19
mean of five studies	38±6	150	12
Kidney Beans vulgaris Linn), soaked, boiled 17 min (Philippines)	13	150	3
Kidney beans (Phaseolus vulgaris) (India)	19	150	5
Kidney beans (USA)	23	150	6
Kidney beans, dried, boiled (France)	23±1	150	6
L.), red, soaked 20 min, boiled 70 min (Sweden)	25	150	6
Kidney beans (Canada)	29±8	150	7
Kidney beans, dried, boiled (Canada)	42	150	10

Kidney beans (Canada)	46	150	11
mean of eight studies	28±4	150	7
Kidney beans (<i>Phaseolus vulgaris</i> L.) - autoclaved	34	150	8
Kidney beans, canned (Lancia- Bravo Foods Ltd., Canada)	52	150	9
h, stored moist 24 h, steamed 1 h (India)	70±11	150	17
Linn), soaked overnight, cooked 45 min (Philippines)	20	150	5
Lentils, type NS			
Lentils, type NS (USA)	28		
Lentils, type NS (Canada)	29±3		
mean of two studies	29±1	150	5
Lentils, green			
Lentils, green, dried, boiled (Canada)	22	150	4
Lentils, green, dried, boiled (France)	30±15	150	6
Lentils, green, dried, boiled (Australia)	37±3	150	5
mean of three studies (Lancia-Bravo Foods Ltd., Canada)	30±4 52	150 150	5 9
Lentils, red			
Lentils, red, dried, boiled (Canada)	18	150	3
Lentils, red, dried, boiled (Canada)	21	150	4
Lentils, red, dried, boiled (Canada)	31	150	6
Lentils, red, dried, boiled (Canada)	32	150	6
mean of four studies	26±4	150	5
reheated in microwave oven (York, Canada Packers, Toronto,	32	150	10
Marrowfat peas			
Marrowfat peas, dried, boiled (USA)	31		
Marrowfat peas, dried, boiled (Canada)	47±3		

mean of two studies	39±8	150	7
Mung beans			
Roxb), soaked, boiled 20 min (Philippines)	31	150	5
Mung bean, fried (Australia)	53±8		
Mung bean, germinated (Australia)	25±4	150	4
Mung bean, pressure cooked (Australia)	42±5	150	7
Peas, dried, boiled (Australia Huth.), soaked, boiled 45 min (Philippines)	22	150	2
	22	150	4
Pinto beans			
Pinto beans, dried, boiled (Canada)	39	150	10
(Lancia-Bravo Foods Ltd., Canada)	45	150	10
Romano beans (Canada)	46	150	8
Soya beans			
Soya beans, dried, boiled (Canada)	15±5	150	1
Soya beans, dried, boiled (Australia)	20±3	150	1
mean of two studies	18±3	150	1
Soya beans, canned (Canada)	14±2	150	1
Split peas, yellow, boiled 20 min (Nupack, Mississauga, Canada)	32	150	
MEAL REPLACEMENT PRODUCTS			
(Dietworks, South Yarra, Vic, Australia)	42±7	50	9
L.E.A.N™ products (Usana Inc., Salt Lake City, UT, US)			
L.E.A.N Fibergy™ bar, Harvest Oat	45±4	50	13
Nutrimeal™, drink powder, Dutch Chocolate	26±3	250	3
L.E.A.N (Life long) Nutribar™, Peanut Crunch	30±4	40	6
L.E.A.N (Life long) Nutribar™, Chocolate Crunch	32±4	40	6
mean of two Nutri bars	31±1	40	6

reduced-carbohydrate products
(2000 formulations)
(Worldwide Sport Nutritional
Supplements Inc., Largo, FL, US)

Designer chocolate, sugar-free	14±3	35	3
Burn-it™ bars			
Chocolate deluxe	29±3	50	2
Peanut butter	23±3	50	1
Pure-protein™ bars			
Chewy choc-chip	30±4	80	4
Chocolate deluxe	38±4	80	5
Peanut butter	22±4	80	2
Strawberry shortcake	43±4	80	6
White chocolate mousse	40±4	80	6
Pure-protein™ cookies			
Choc-chip cookie dough	25±3	55	3
Coconut	42±5	55	4
Peanut butter	37±7	55	3
Ultra pure-protein™ shakes			
Cappuccino	47±6	250	1
Frosty chocolate	37±6	250	1
Strawberry shortcake	42±4	250	1
Vanilla ice cream	32±5	250	1
MIXED MEALS AND CONVENIENCE FOODS			
reheated in microwave oven 5 min (Savings, Grocery Holdings, Tooronga, Vic, Australia)	46±4	100	7
Fish Fingers (Canada)	38±6	100	7
Greek lentil stew with a bread roll, home made (Australia)	40±5	360	15

noodles, sugar, cheese and raisins) (Israel)	65±6	150	31
chicken with rice, reheated (Nestlé, Sydney, NSW,	36±6	400	24
Pies, beef, party size (Farmland, Grocery Holdings, Australia)	45±6	100	12
Pizza			
Pizza, cheese (Pillsbury Canada Ltd., Toronto, Canada)	60	100	16
with parmesan cheese and tomato sauce (Italy)	80	100	22
(11.4% fat) (Pizza Hut, Sydney, NSW, Australia)	36±6	100	9
crispy (13.2 % fat) (Pizza Hut, Australia)	30±4	100	7
and crispy (7.8 % fat) (Pizza Hut, Australia) ⁶	49±6	100	12
Sausages, NS(Canada)	28±6	100	1
vegetables and mashed potato, home made (Australia)	66±12	360	35
Spaghetti bolognese, home made (Australia)	52±9	360	25
and boiled white rice, home made (Australia)	73±17	360	55
Sushi			
chain store, Sydney, NSW, Australia) ⁶	48±8	100	17
Sushi, roasted sea algae, vinegar and rice (Japan)	55	100	20
Mean of two studies	52±4	100	19
burger, cheese, and butter (France)	27	440	14
beefburger, cheese and butter (France)	22	440	11
Mean in two groups of subjects	25±2	440	13
White bread with toppings cheese, regular cow's milk and fresh cucumber (Sweden) ⁶	55	200	38
White wheat flour bread, butter, yoghurt and pickled cucumber	39	200	11
White bread with butter (Canada)	59	100	29
White bread with skim milk cheese (Canada)	55	100	26
White bread with butter and skim milk cheese (Canada)	62	100	23

White/wholemeal wheat bread with peanut butter (Canada)	51	100	23
White/wholemeal wheat bread with peanut butter (Canada)	67	100	30
mean of two studies	59±8	100	26
NUTRITIONAL SUPPORT PRODUCTS			
Johnson Nutritionals, Evansville, IN, US)	23±4	237mL	6
powder (Wyeth-Ayerst International Inc., Madison, NJ, Ensure™ (Abbott Australasia, Kurnell, NSW, Australia)	61±13	237mL	24
Ensure™, vanilla (Abbott Australasia)	50±8	237mL	19
Ensure™ bar, chocolate fudge brownie (Abbott Australasia)	48±3	250mL	16
Ensure Plus™, vanilla (Abbott Australasia)	43±3	38	8
vanilla (Abbott Laboratories Inc., Ashland, OH, USA)	40±4	237mL	19
Glucerna™, vanilla (Abbott Laboratories Inc., USA) ⁶	36±4	113	9
vanilla (Novartis Nutrition Corp., Young America, MN, USA) ⁶	31±2	237mL	7
Ultracal™ with fiber (Mead Johnson, Evansville, IN, USA)	34±3	237mL	8
	40	237 mL	12
PASTA and NOODLES			
Capellini (Primo Foods Ltd., Toronto, Canada)	45	180	20
Natural Foods, Carrum Downs, Vic, Australia)	78±10	180	32
Fettucine, egg			
Fettucine, egg	32±4	180	15
Fine Foods, Rowville, Vic, Australia)	47±6	180	22
mean of two studies	40±8	180	18
Gluten-free pasta, maize starch, boiled 8 min (UK)	54	180	22
Australia Ltd., Mt. Waverley, Vic, Australia)	68±9	180	33
Instant noodles			
Maggi® (Nestlé, Sydney, NSW, Australia)	46±5		
Maggi® (Nestlé, Auckland, New Zealand)	48±8		

Instant noodles (Mr Noodle, Vancouver, Canada)	47		
mean of three studies	47±1	180	19
Linguine			
Thick, durum wheat, white, fresh (Sweden)	43	180	21
0.6% w/w monoglycerides, boiled 8 min (Sweden)	48	180	23
mean of two studies	46±3	180	22
Thin, durum wheat (Sweden)	49	180	23
0.6% w/w monoglycerides, boiled 3 min (Sweden)	61	180	29
Thin, fresh, durum wheat with 39% w/w egg, (Sweden)	45	180	18
monoglycerides and 30% w/w egg, boiled 3 min (Sweden)	53	180	22
mean of four studies	52±3	180	23
Mung bean noodles			
(National Cereals, Oils & Foodstuffs, Qingdao & beanthread), dried, boiled (Yantai cereals, China)	26	180	12
	39±9	180	18
mean of two studies	33±7		
Macaroni			
(Lancia-Bravo Foods Ltd., Canada)	45	180	22
Macaroni, plain, boiled (Turkey)	48	180	23
mean of two studies	47±2	180	23
(Kraft General Foods Canada Inc., Don Mills, Ontario)	64	180	32
Ravioli, durum wheat flour, meat filled, boiled (Australia)	39±1	180	15
Rice noodles/pasta			
Rice noodles, dried, boiled (Thai World, Bangkok, Thailand)	61±6	180	23
Rice noodles, freshly made, boiled (Sydney, NSW, Australia)	40±4	180	15
(Rice Grower's Co-op., Leeton, NSW, Australia)	92±8	180	35
free, Ris'O'Mais (Orgran Foods, Carrum Downs, Vic, Australia)	76±6	180	37

(National Cereals, Oils & Foodstuffs, China)	58	180	22
Spaghetti			
split pea, canned in tomato sauce (Orgran Foods, Australia)	68±9	220	19
boiled 7 min (Catelli Plus, Catelli Ltd., Montreal, Canada)	27	180	14
Spaghetti, white, boiled 5 min			
Boiled 5 min (Lancia-Bravo Foods Ltd., Canada)	32	180	15
Boiled 5 min (Canada)	34	180	16
Boiled 5 min (Canada)	40	180	19
Boiled 5 min (Middle East)	44	180	21
mean of four studies	38±3	180	18
Spaghetti, white or type NS, boiled 10-15 min			
min in salty water (Barilla, Parma, Italy) ¹²	58	180	28
boiled 12 min (Starhushålls, Kungsörnen AB, Järna, Sweden)	47	180	23
w/w monoglycerides, boiled 12 min (Sweden)	53	180	25
Boiled 15 min (Lancia-Bravo Foods Ltd., Canada)	32	180	15
Boiled 15 min (Lancia-Bravo Foods Ltd., Canada)	36	180	17
Boiled 15 min (Canada)	41	180	20
White, boiled 15 min in salted water (Unico, Concord, Canada)	44±3	180	21
mean of seven studies	44±3	180	21
Spaghetti, white or type NS, boiled 20 min			
White, durum wheat, boiled 20 min (Australia)	58±7	180	26
Durum wheat, boiled 20 min (USA)	64±15	180	27
mean of two studies	61±3	180	27
Spaghetti, white, boiled			
White (Denmark)	33	180	16
White, durum wheat (Catelli Ltd, Montreal, Canada)	34	180	16

White (Australia)	38	180	17
White (Canada)	42	180	20
White (Canada)	48	180	23
White (Vetta, Greens Foods, Glendenning, NSW, Australia)	49±7	180	22
White (Canada)	50±8	180	24
mean of seven studies semolina (Panzani, Marseilles, France)	42±3	180	20
Boiled in 0.7% salted water for 11 min	59±15	180	28
Boiled in 0.7% salted water for 16.5 min	65±15	180	31
Boiled in 0.7% salted water for 22 min	46±10	180	22
mean of three cooking times	57±6	180	27
Spaghetti, wholemeal, boiled			
Wholemeal (USA)	32	180	14
Wholemeal (Canada)	42±4	180	17
mean of two studies boiled to al denté texture (Vetta, Australia)	37±5	180	16
43±10	180	19	
gluten-free (Orgran Foods, Australia)	29±6	180	9
minutes (Lancia-Bravo Foods Ltd., Canada)	38	180	18
Tortellini, cheese (Stouffer, Nestlé, Don Mills, Canada)	50	180	10
min (Fantastic, Windsor Gardens, SA, Australia)	62±8	180	30
Vermicelli, white, boiled (Australia)	35±7	180	16
SNACK FOODS AND CONFECTIONERY			
Chocolate, milk, plain			
Chocolate, milk, plain with sucrose (Belgium)	34±5	50	7
Confectionery, Ringwood, Vic, Australia)	49±6	50	14
Confectionery, Ballarat, Vic, Australia)	45±8	50	13

Chocolate, milk (Nestlé, Sydney, NSW, Australia)	42±8	50	13
mean of four studies	43±3	50	12
Chocolate, milk, plain, low-sugar with maltitol (Belgium)	35±16	50	8
Chocolate, white, Milky Bar® (Nestlé, Australia)	44±6	50	13
Corn chips			
(Doritos™ original, Smith's Snack Food Co., Australia, 1998)	42±4	50	11
(Doritos™ original, Smith's Snack Food Co., Australia, 1985)	72	50	18
Nachips™ (Old El Paso Foods Co., Canada)	74	50	21
mean of three studies	63±10	50	17
Fruit Bars			
dried apricot filling in wholemeal pastry (Mother Earth, Auckland, New Zealand)	50±8	50	17
banana (HJ Heinz, Malvern, Vic, Australia)	61±11	30	12
(Uncle Toby's, Wahgunyah, Vic, Australia)	90±12	30	23
Roll-Ups®, processed fruit snack (Uncle Toby's, Australia)	99±12	30	24
Jelly beans			
(Allen's, Nestle, Sydney, NSW, Australia)	80±8		
(Savings, Grocery Holdings, Tooronga, Vic, Australia)	76±6		
mean of two studies	78±2	30	22
chocolate chip (M & M/Mars, Hackettstown, NJ, USA)	62±8	50	20
Life Savers®, peppermint candy (Nestlé, Australia)	70±6	30	21
M & M's®, peanut (Mars Confectionery, Australia)	33±3	30	6
Mars Bar®			
Mars Bar® (Mars Confectionery, Australia)	62±8	60	25
Mars Bar® (M&M/Mars, USA)	68±12	60	27
mean of two studies	65±3	60	26

Muesli bar containing dried fruit (Uncle Toby's, Australia)	61±7	30	13
Nougat, Jijona (La Fama, Spain)	32	30	4
spread (Ferrero Australia, Milson's Point, NSW, Australia)	33±4	20	4
Cashew nuts, salted (Coles Supermarkets, Australia)	22±5	50	3
Peanuts			
Peanuts, crushed (South Africa)	7±4	50	0
Peanuts (Canada)	13±6	50	1
Peanuts (Mexico)	23	50	2
mean of three studies	14±8	50	1
Popcorn			
microwave oven (Green's Foods, Glendenning, NSW, Australia)	55±7	20	6
microwave oven (Uncle Toby's, Australia)	89	20	10
mean of two studies (Kellogg's, Pagewood, NSW, Australia)	72±17	20	8
	70±2	50	24
Potato crisps			
(Arnott's, Homebush, NSW, Australia)	57	50	10
Potato crisps, plain, salted (Canada)	51±7	50	12
mean of two studies	54±3	50	11
wheat flavour (Parker's, Smith's Snack Food Co., Australia)	83±9	30	16
Skittles® (Mars Confectionery, Australia)	70±5	50	32
Snack bars			
Snack bar, Apple Cinnamon (Con Agra Inc., Omaha, NE, USA)	40±8	50	12
Snack bar, Peanut Butter & Choc- Chip (Con Agra Inc., USA)	37±6	50	10
Snickers Bar®			
Snickers Bar® (Mars Confectionery, Australia)	41±5	60	15
Snickers Bar® (M&M/Mars, USA)	68	60	23

mean of two studies	55±14	60	19
extruded snack, rice and corn (Smith's Snackfood Co., Twix® Cookie Bar, caramel (M&M/Mars, USA)	74±5 44±6	50 60	22 17
SPORTS BARS			
Power Bar® (Powerfood Inc., Berkeley, CA, USA)	58±5		
(Powerfood Inc., Berkeley, CA, USA)	53		
mean of two studies	56±3	65	24
Ironman PR bar®, chocolate (PR Nutrition, San Diego, CA, USA)	39	65	10
SOUPS			
Black Bean (Wil-Pack Foods, San Pedro, CA, USA)	64	250	17
Green Pea, canned (Campbell Soup Co Ltd., Toronto, Canada)	66	250	27
Lentil, canned (Unico, Concord, Canada)	44	250	9
Ladle™ (Campbell's Soups, Homebush, NSW, Australia)	39±3	250	7
Noodle soup (traditional Turkish soup with stock and noodles)	1	250	0
Split Pea (Wil-Pak Foods, USA)	60	250	16
Turkish soup with wheat flour, yoghurt, tomato, peppers)	20		
Tomato soup (Canada)	38±9	250	6
SUGARS AND SUGAR ALCOHOLS			
Blue Agave cactus nectar, high- fructose light, 90% fructose (Western Commerce Corp., City of CA, USA)	11±1	10	1
light, 97% fructose (Western Commerce Corp., USA)	10±1	10	1
Fructose 25g portion (Sweeten Less, Maximum Nutrition Inc.,	11		

Maximum Nutrition Inc., Toronto, Canada)	12		
50g portion	20±5		
50g portion	21		
50g portion (Sigma Chemical Company, St. Louis, MO, USA)	24		
25g portion, fed with oats	25		
mean of six studies	19±2	10	2
Glucose			
50 g portion (dextrose)	85		
25g portion, fed with oats	92		
50 g portion	93		
50 g portion (dextrose)	96		
50 g portion	96		
Dawson Traders Ltd., Toronto, Canada)	96		
50 g portion	100		
tablets, Boots, North Ryde, NSW, Australia)	102±9		
25 g portion (Bio-Health, Canada)	103		
50 g portion (dextrose)	111		
100 g portion (Bio-Health, Canada)	114		
mean of 11 studies	99±3	10	10
American ginseng (Panax quinquefolius L.)			
Rougier Inc., Chambly, Quebec) with 3 g dried ginseng	78	10	8
25 g glucose (Glucodex) 40 min after 3 g dried ginseng ⁵	80		
25 g glucose (Glucodex) 40 min before 3 g dried ginseng	76		
mean in two groups of subjects	78±2	10	8
Glucose consumed with gum/fiber			
orange fiber extract (FITA, Chatswood, NSW, Australia)	79±3	10	6

(total carbohydrate content of
drink = 50 g)

50 g Glucose + 14.5 g guar gum	62	10	6
50 g Glucose + 14.5 g oat gum (78% oat β -glucan)	57	10	6
100 g Glucose + 20 g acacia gum	85	10	9
Glucose consumed with a mixed meal			
beefburger, 30 g cheese, 10 g butter	55		
(total meal contained 50 g carbohydrate) (France)			
beefburger, 30 g cheese, 10 g butter	57		
(total meal contained 50 g carbohydrate) (France)			
mean in two groups of subjects	56 \pm 1	250	20

Honey

Locust honey (Romania)	32	25	7
Yellow box (46% fructose) (Australia)	35 \pm 4	25	6
Stringy Bark (52% fructose) (Australia)	44 \pm 4	25	9
Red Gum (35% fructose) (Australia)	46 \pm 3	25	8
Iron Bark (34% fructose) (Australia)	48 \pm 3	25	7
Yapunya (42 % fructose) (Australia)	52 \pm 5	25	9
Pure (Capilano Honey Ltd., Richlands, Qld, Australia)	58 \pm 6	25	12
fructose) (WA blend, Capilano Honey Ltd., Australia)	62 \pm 3	25	11
Salvation Jane (32% fructose) (Australia)	64 \pm 5	25	10
fructose) (NSW blend, Capilano Honey Ltd., Australia)	72 \pm 6	25	9
Honey, NS(Canada)	87 \pm 8	25	18
mean of 11 types of honey	55 \pm 5	25	10
Lactose			
50 g lactose (Sigma Chemical Company, USA)	43		
25 g lactose (BDH, Poole, UK)	48		

25 g lactose	48		
mean of three studies	46±2	10	5
50 g maltose	105±12	10	11
Sucrose			
50 g sucrose (Sigma Chemical Company, USA)	58		
50 g sucrose (Redpath Sugars, Toronto, Canada)	58		
50 g sucrose	59±10		
50 g sucrose	60		
25 g sucrose (Redpath Sugars, Canada)	60		
25 g sucrose ²⁸	64		
50 g sucrose	65±9		
100 g sucrose (Redpath Sugars, Canada)	65		
30 g sucrose	82		
25 g sucrose	110±21		
mean of 10 studies	68±5	10	7
Sugar alcohols and sugar-replacement compounds			
Lactitol			
25 g lactitol	-1±7		
25 g lactitol MC (Danisco sweeteners, Redhill, Surrey, UK)	3±1		
mean of two studies	2±3	10	0
Litesse			
polydextrose and sorbitol (Danisco Sweeteners, UK)	7±2	10	1
agent with polydextrose and sorbitol (Danisco Sweeteners, Maltitol-based sweeteners or bulking agents)	4±2	10	0
25 g Malbit CR (87% maltitol) (Cerestar, Vilvoorde, Belgium)	30±12	10	3
maltitol) (Cerestar, Vilvoorde, Belgium)	44±11	10	4

25 g Malbit CH (99% maltitol) (Cerestar, Vilvoorde, Belgium)	73±29	10	7
25 g Maltidex 200 (50% maltitol) (Cerestar, Vilvoorde, Belgium)	89±28	10	9

Xylitol

25 g xylitol	7±7		
25 g Xylitol C (Danisco Sweeteners, UK)	8±2		
mean of two studies	8±1	10	1

VEGETABLES

Broad beans (Canada)	79±16	80	9
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Green peas

Pea, frozen, boiled (Canada)	39	80	3
Pea, frozen, boiled (Canada)	51±6	80	4
Pea, green (Pisum Sativum) (India)	54±14	80	4
mean of three studies	48±5	80	3

Pumpkin (South Africa)	75±9	80	3
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Sweet corn

Sweet corn, 'Honey & Pearl' variety (New Zealand)	37±12	80	6
Sweet corn on the cob, boiled 20 min (Sydney, Australia)	48	80	8
Sweet corn (Canada)	59±11	80	11
Sweet corn, boiled (USA)	60	80	11
Sweet corn, boiled (USA)	60	80	11
Sweet corn (South Africa)	62±5	80	11
mean of six studies	54±4	80	9
pack, Featherweight, canned, drained, heated (USA)	46	80	7
microwave (Green Giant, Pillsbury Canada Ltd., Toronto,	47	80	7

Root vegetables

Beetroot (Canada)	64±16	80	5
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Carrots

Carrots, raw (Romania)	16	80	1
Carrots, peeled, boiled (Sydney, NSW, Australia) ⁶	32±5	80	1
Carrots, peeled, boiled (Sydney, NSW, Australia) ⁶	49±2	80	2
Carrots, NS (Canada)	92±20	80	5
mean of four studies	47±16	80	3
Cassava, boiled, with salt (Kenya, Africa)	46	100	12
Parsnips (Canada)	97±19	80	12

Potato

Baked potato			
Ontario, white, baked in skin (Canada)	60	150	18
Baked, Russet Burbank potatoes			
Russet, baked without fat (Canada)	56		
Russet, baked without fat, 45-60 min (USA)	78		
Russet, baked without fat (USA)	94		
Russet, baked without fat (USA)	111		
mean of four studies	85±12	150	26
Boiled potato			
Desiree, peeled, boiled 35 min (Australia)	101±15	150	17
Nardine (New Zealand) cubes, boiled in salted water 15 min (Canada)	70±17	150	18
Pontiac, peeled, boiled whole for 30 min (Australia)	58	150	16
Pontiac, peeled, boiled 35 min (Australia)	56	150	14
Pontiac, peeled, boiled 35 min cubed, boiled in salted water 15 min (Canada)	88±9	150	16
Sebago, peeled, boiled 35 min (Australia)	63	150	11
Sebago, peeled, boiled 35 min (Australia)	87±7	150	14
Boiled/cooked, white/Type NS			

Type NS (Kenya, Africa)	24	150	7
White, cooked (Romania)	41	150	12
White, boiled (Canada)	54	150	15
Type NS, boiled (Australia)	56	150	11
Type NS, boiled in salted water (India)	76	150	26
mean of five studies	50±9	150	14
Type NS, boiled in salted water, refrigerated, reheated (India)	23	150	8
Canned potatoes microwave heated (Avon, Cobi Foods Inc., Port Williams, microwave 3 min (Mint Tiny Taters, Edgell's, Cheltenham, Vic,	61	150	11
	65±9	150	12
mean of two studies	63±2	150	11
French Fries			
microwave (Cavendish Farms, New Annan, Canada)	75	150	22
Instant Mashed potato			
Instant (France)	74±12		
Instant (Canada)	80±13		
Instant (Edgell's Potato Whip, Edgell's, Australia)	86		
Instant (Carnation Foods Co. Ltd., Manitoba, Canada)	86		
Instant (Canada)	88		
Instant mashed potato (Idahoan Foods, Lewisville, ID, USA)	97±6		
mean of six studies	85±3	150	17
Mashed potato			
Type NS (Canada)	67		
Type NS (South Africa)	71±10		
Type NS (France)	83		
mean of three studies	74±5	150	15

cubed, boiled 15 min, mashed (Canada)	73	150	13
Pontiac, peeled, cubed, boiled 15 min, mashed (Australia)	91±9	150	18
Microwaved potato		150	12
Pontiac, peeled and microwave on high for 6-7.5 min (Australia)	79±9	150	14
Type NS, microwaved (USA)	82	150	27
New Potato			
New (Canada)	47		
New (Canada)	54		
New (Canada)	70±8		
mean of three studies	57±7	150	12
New, unpeeled and boiled 20 min (Australia)	78±12	150	16
Steamed potato			
Potato, peeled, steamed 1 h (Solanum Tuberosum) (India) ¹¹	65±11	150	18
flour, white potatoes, boiled in salted water (Italy))	52	150	24
Sweet potato			
Sweet potato, Ipomoea batatas (Australia)	44	150	11
Sweet potato, NS (Canada)	48±6	150	16
boiled in salted water 15 min (Canada)	59	150	18
Sweet potato, kumara (New Zealand)	77±12	150	19
Sweet potato, kumara (New Zealand)	78±6	150	20
mean of five studies	61±7	150	17
Swede			
Swede (rutabaga) (Canada)	72±8	150	7
Tapioca			
(General Mills Canada Inc., Etobicoke, Canada)	81	250	14
Tapioca (Manihot Utilissima), steamed 1 h (India) ¹¹	70±10	250	12

Taro			
Taro (<i>Colocasia esculenta</i>) peeled, boiled (Australia)	54		
Taro, peeled, boiled (New Zealand)	56±12		
mean of two studies	55±1	150	4
Yam			
Yam, peeled, boiled (New Zealand)	25±4		
Yam, peeled, boiled (New Zealand)	35±5		
Yam (Canada)	51±12		
mean of three studies	37±8	150	13
FOODS OF DIFFERENT ETHNIC GROUPS			
AFRICAN			
Brown beans (South Africa)	24±8	50 (dry)	6
Cassava, boiled, with salt (Kenya)	46	100	12
Ga kenkey, prepared from fermented cornmeal (<i>Zea mays</i>)	12±1	150	7
Gari, roasted cassava dough (<i>Manihot utilissima</i>) (Ghana) ³¹	56±3	100	15
Gram dhal (chana dal; South Africa)	5±3	50 (dry)	1
maize-meal:water = 1:3 (South Africa)	71±6	50 (dry)	25
maize-meal:water = 1:3 (South Africa)	74±7	50 (dry)	30
Maize meal porridge/gruel (Kenya)	109	50 (dry)	41
M'fino/Morogo, wild greens (South Africa)	68±8	120	34
Millet flour porridge/gruel (Kenya)	107		
Unripe plantain (<i>Musa paradisiaca</i>) (Ghana) ³¹	40±4	120 (raw)	13
Yam (<i>Dioscorea</i> species) (Ghana) ³¹	66	150	23
ARABIC AND TURKISH			
Houmous (chickpea salad dip)	6±4	30	0
Kibbeh saynieh (made with lamb and burghul)	61±16	120	9

unleaved), hoummous, falafel and tabbouleh	86±12	120	39
Majadra (Syrian, lentils and rice)	24±5	250	10
Moroccan Couscous (stew of semolina, chickpeas, vegetables and lamb stuffing with tomato sauce)	58±9	250	17
Tarhana soup (wheat flour, yoghurt, tomato, green pepper)	30±11	100	5
Turkish bread, white wheat flour	87	30	15
Turkish bread, whole wheat	49	30	8
Turkish noodle soup	1	250	0
ASIAN			
rice cooker (Lion foods, Bangkok, Thailand)	86±10	150	37
Butter rice, warm white rice and butter (Japan)	79	150	40
Curry rice (Japan)	67	150	41
Curry rice with cheese (Japan)	55	150	27
rice cooker (Bangsue Chia Meng Rice Co., Bangkok, Thailand)	98±7	150	31
Glutinous rice NS (Esubi Shokuhin, Japan)	86	150	55
Mean of two studies	92±6	150	44
Glutinous rice ball with cut glutinous cake (mochi) (Japan)	48	75	14
Glutinous rice cake with dried sea algae (Japan)	83	75	32
served warm with roasted ground soybean (Japan)	65	100	27
rice cooker (Golden World Foods, Bangkok, Thailand)	109±10	150	46
Low-protein white rice with dried sea algae (Japan)	70	150	42
Cereals, Oils & Foodstuffs, Qingdao & Guangdong, China)	26	180	12
Lychee, canned in syrup, drained (Narcissus brand, China)	79±8	120	16
Mung bean noodles, dried, boiled (China)	39±9	180	18
served warm with drink (Yamato Nousan, Japan)	68	100	34
Rice cracker, plain (Sakada, Japan)	91	30	23

Rice gruel with dried algae (Satou Co Ltd., Japan)	81	250	15
Rice noodles, dried, boiled (Thai World, Bangkok, Thailand)	61±6	180	23
Rice noodles, fresh, boiled (Sydney, NSW, Australia)	40±4	180	15
Rice vermicelli, Kongmoon (National Cereals, China)	58	180	22
Roasted rice ball (Satou Co Ltd., Japan)	77	75	21
Salted rice ball (Satou Co Ltd., Japan)	80	75	20
in hot water, served with soup (Japan)	46	180	22
Stirfried vegetables, chicken and rice, home made (Australia)	73±17	360	55
chain store, Sydney, NSW, Australia ⁶	48±8	100	17
Sushi, roasted sea algae, vinegar and rice (Japan)	55	100	20
Mean of two studies	52±4	100	19
(Fantastic, Windsor Gardens, SA, Australia) ⁶	62±8	180	30
sauce and fried bean curd (Nishin Shokuhin, Japan)	48	180	23
Mean of two studies	55±7	180	26
White rice, dried sea algae and milk, eaten together (Japan)	57		
milk (milk eaten before rice) (Japan)	56		
milk (milk eaten after rice) (Japan)	55		
Mean of three types	56±1	300	26
White rice with dried fish strip (okaka) (Japan)	79	150	40
White rice with fermented soybean (natto) (Japan)	56	150	24
soup (soybean paste soup) (Japan)	61	150	29
White rice with low-fat milk (Japan)	69	300	32
yoghurt (yoghurt eaten before rice) (Japan)	59		
White rice and non-sugar yoghurt eaten together (Japan)	58		
Mean of two types	59±1	150	19
and cucumber (pickled food eaten before rice) (Japan)	63		

and cucumber (pickled food eaten with rice) (Japan)	61		
Mean of two types	62±1	150	27
White rice topped with raw egg and soy sauce (Japan)	72	150	26
White rice with roasted ground soybean (Japan)	56	150	29
White rice with salted dried plum (umeboshi) (Japan)	80	150	39
in sheet of toasted sea algae (Japan)	77	150	39
ASIAN INDIAN			
esculentum, popped, eaten with milk and	97±19	30	18
non-nutritive sweetener typhoideum), eaten as roasted bread made from bajra flour	55±13		
Bajra (Pennisetum typhoideum)	49		
Bajra (Pennisetum typhoideum)	67		
Mean of three studies	57±5	75 (dry)	29
Nendra variety, unripe, steamed 1 h ¹¹	70±11	120	31
Barley (Hordeum vulgare)	48		
Barley (Hordeum vulgare)	37		
Mean in two groups of subjects	43±6	150	16
Bengal gram dhal, chickpea (chana dal)	11	150	4
soaked 12 h, stored moist 24 h, steamed 1 h ¹¹	43±10	150	8
Chapatti			
(25:75) composite flour, served with bottle gourd and tomato	66±10	60	20
(50:50) composite flour, served with bottle gourd and tomato	76±20	60	23
Chapatti, baisen	27		
Chapatti, bajra	67		
Chapatti, bajra	49		
Mean in two groups of subjects	58±9		

Chapatti, barley	37		
Chapatti, barley	48		
Mean in two groups of subjects	42±5		
Chapatti, maize, (<i>Zea mays</i>)	64		
Chapatti, maize, (<i>Zea mays</i>)	59		
Mean in two groups of subjects	62±3		
Chapatti, wheat, served with bottle gourd and tomato curry	66±9	60	21
wheat, moth bean (<i>Phaseolus aconitifolius</i>) and bengal gram (<i>Cicer arietinum</i>)	66±9	60	25
popped wheat, moth bean and bengal gram	40±8	60	14
wheat, moth bean and bengal gram	60±9	60	23
green gram (<i>Phaseolus aureus</i>) dhal	81±4	200	41
green gram (<i>Phaseolus aureus</i>) dhal	44±3	200	22
Mean in two groups of subjects	63±19	200	32
Cheela (thin savoury pancake made from legume flour batter)			
Cheela, bengal gram (<i>Cicer arietinum</i>)	42±1	150	12
Cheela, bengal gram (<i>Cicer arietinum</i>), fermented batter	36±1	150	10
Cheela, green gram (<i>Phaseolus aureus</i>)	45±1	150	12
Cheela, green gram (<i>Phaseolus aureus</i>), fermented batter	38±1	150	10
steamed cake; dehusked chickpea and wheat semolina	35±4		
steamed cake; dehusked chickpea and wheat semolina	31±6		
Mean in two groups of subjects	33±2	100	6
soaked, ground, fermented and fried) with chutney	77±3	150	30
soaked, ground, fermented and fried) with chutney	55±2	150	22
Mean in two groups of subjects	66±11	150	26
soaked 12 h, stored moist 24 h, steamed 1 h ¹¹	38±14	150	6

(Paspalum scorbiculatum), pressure cooked	57±6	80 (dry)	29
(Paspalum scorbiculatum), pressure cooked	78±12	78 (dry)	39
soaked 12 h, stored moist 24 h, steamed 1 h ¹¹	51±11	150	15
black dhal, soaked, ground, fermented, steamed) with	77±2	250	40
black dhal, soaked, ground, fermented, steamed) with	60±2	250	31
Mean in two groups of subjects	69±9	250	36
Jowar, roasted bread made from Jowar flour (Sorghum vulgare)	77±8	70 (dry)	39
millet, roasted legume powder, fenugreek seeds)	24±4		
in hot sweet syrup			
millet, roasted legume powder, fenugreek seeds)	29±4		
in hot sweet syrup			
Mean in two groups of subjects	27±3	50	8
Lentil and cauliflower curry with rice (Australia)	60±10	360	31
dehusked, soaked 12 h, stored moist 24 h, steamed 1 h	68±10	150	23
Millet/Ragi (Eleusine coracana)	84	70 (dry)	42
Millet/Ragi (Eleusine coracana) flour eaten as roasted bread	104±13	70 (dry)	52
mean of two studies	94±10		
Pongal (rice and roasted green gram dhal, pressure cooked)	90±3		
Pongal (rice and roasted green gram dhal, pressure cooked)	45±2		
Mean in two groups of subjects	68±23	250	35
dough) with potato palya (mashed potato)	82±2		
dough) with potato palya (mashed potato)	57±1		
Mean in two groups of subjects	70±13	150	28
Rajmah, Phaseolus vulgaris with bottle gourd and tomato curry	19	150	6
	69±15	150	26

Semolina

Semolina (<i>Triticum aestivum</i>), steamed	55±9	67 (dry)	28
Semolina (<i>Triticum aestivum</i>), pre-roasted	76±6	67 (dry)	38
with fermented black gram dhal (<i>Phaseolus mungo</i>)	46±12	71 (dry)	23
with fermented green gram dhal (<i>Phaseolus aureus</i>)	62±20	71 (dry)	31
with fermented bengal gram dhal (<i>Cicer arietum</i>)	54±7	71 (dry)	27
Tapioca (<i>Manihot utilissima</i>), steamed 1h	70±10	250	12
scorbiculatum), pressure cooked 15lb 12-15 min	68±8	76 (dry)	34
Upittu (roasted semolina and onions, cooked in water)	67±3		
Upittu (roasted semolina and onions, cooked in water)	69±4		
Mean in two groups of subjects legumes, fenugreek seeds; roasted and cooked in water)	68±1	150	28
legumes, fenugreek seeds; roasted and cooked in water)	18±3		
legumes, fenugreek seeds; roasted and cooked in water)	19±3		
Mean in two groups of subjects	18±1	150	6
AUSTRALIAN ABORIGINAL			
Acacia aneura, mulga seed, roasted, wet ground to paste	8	50	1
Acacia coriacea, desert oak, seed bread	46	75	11
Araucaria bidwillii, bunya tree nut, baked min	47	50	7
Bush honey, sugar bag	43	30	11
blackbean seed, sliced, soaked 1 wk, pounded and baked	8	50	1
peeled, sliced, soaked 2 d, baked 15 min	34	150	12
palm seed, sliced, soaked 1 wk, pounded, baked	40±2	50	10
PACIFIC ISLANDERS			
Breadfruit (<i>Artocarpus altilis</i>) (Australia)	68	120	18
Banana/plantain, green Green banana, boiled (New Zealand)	38±10	120	8
Sweet Potato			

Sweet potato, Ipomoea batatas (Australia)	44	150	11
Sweet potato, kumara (New Zealand)	77±12	150	19
Sweet potato, kumara (New Zealand)	78±6	150	20
mean of three studies	66±11	150	17
Taro			
Taro (Colocasia esculenta) peeled, boiled (Australia)	54		
Taro, peeled, boiled (New Zealand)	56±12		
mean of two studies	55±1	150	4
Yam			
Yam, peeled, boiled (New Zealand)	25±4		
Yam, peeled, boiled (New Zealand)	35±5		
mean of two groups of subjects	30±5	150	13
ISRAELI			
white wheat flour and butter, fried)	61±10		
Melawach	71±7		
mean of two studies	66±5	115	35
Melawach + 15 g locust bean (Ceratonia siliqua) fiber (soluble)	31±6	130	16
Melawach + 15 g maize cob fiber (insoluble)	59±10	130	31
Melawach + 15 g lupin (Lupinus albus) fiber	72±10	130	38
PIMA INDIAN			
Acorns, stewed with venison (Quercus emoryi) ⁶	16±1	100	1
Cactus jam (Stenocereus thurberi)	91	30	18
Corn hominy (Zea mays)	40±5	150	12
Fruit Leather (Stenocereus thurberi)	70	30	17
Lima beans broth (Phaseolus lunatus)	36±3	250	12
Mesquite cakes (Prosopis velutina)	25±3	60	1

Tortilla (<i>Zea mays</i> and <i>Olneya tesota</i>)	38	60	9
White teparies broth (<i>Phaseolus acutifolius</i>)	31±3	250	10
Yellow teparies broth (<i>Phaseolus acutifolius</i>)	29±3	250	8
SOUTH AMERICAN			
Arepa, corn bread cake, made with corn flour (Mexico)	72	100	31
dehulled dent corn flour (25% amylose)	81	100	35
Arepa, made from dehulled high-amylose (70%) corn flour	44	100	11
Black Beans	30	150	7
Brown Beans	38	150	9
Corn tortilla (Mexican)	52	50	12
mashed pinto beans and tomato sauce (Mexican)	39	100	9
potato, fresh tomato and lettuce (Mexican)	78	100	11
Nopal (prickly pear cactus)	7	100	0
Pinto beans, boiled in salted water	14	150	4
Wheat tortilla (Mexican)	30	50	8
refried pinto beans and tomato sauce (Mexican)	28	100	5