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GI News is published online every month by the University of Sydney, School of Life and Environmental Sciences and the Charles Perkins Centre, and delivered to the mailboxes of our 97,000 subscribers. Our goal is to help people choose the high-quality carbs that are digested at a rate that our bodies can comfortably accommodate and to share the latest scientific findings on food and diet with a particular focus on carbohydrates, dietary fibres, blood glucose and the glycemic index.

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FOOD FOR THOUGHT

SUGAR ALCOHOLS (POLYOLS) Q&A: OUR EXPERTS ANSWER YOUR QUESTIONS

Prof Jennie Brand-Miller and Dr Alan Barclay answer 7 of the most common questions we are asked about sugar alcohols.

WHAT ARE SUGAR ALCOHOLS (POLYOLS)? Erythritol, glycerol, hydrogenated starch hydrolysates, isomalt, lactitol, maltitol, mannitol, sorbitol and xylitol are sugar alcohols. They are a type of carbohydrate. Their somewhat confusing name comes from their chemical structure with its characteristics of both sugars and alcohol. But they don't actually contain sugars nor do they contain the type of alcohol found in beer, wine or spirits. They are sweet but, except for xylitol, generally much less sweet than sucrose, which is why food and beverage manufacturers often combine them with intense sweeteners such as stevia in foods and beverages.

WHERE DO YOU FIND THEM? Food manufacturers use sugar alcohols as reduced-calorie (kilojoule) sugar substitutes to sweeten "diabetic friendly", sugar free and no added sugars products including chewing gum, candy (lollies), ice cream, dairy desserts, yoghurts, baked goods such as cakes and cookies, and fruit spreads and jams. They also add them to tabletop and spoonable or pourable high-intensity sweeteners such as stevia as bulking agents. You'll also find them in toothpastes, mouthwashes, breath mints, cough syrups or drops and

throat lozenges in the pharmacy aisles. Apart from xylitol, you'll be very unlikely to see them on the supermarket shelf as they are not commonly used as ingredients in home cooking.



WHERE DO THEY COME FROM? Most sugar alcohols are produced in commercial quantities for the food industry from various sugars or starches. However, they do occur naturally in many plants. For example:

- Erythritol is found in small amounts in grapes, melons and mushrooms and in fermented foods such as wine, beer, sake, cheese, and soy sauce.
- Sorbitol occurs naturally in many fruits and berries. It was first “discovered” way back in 1872 in the berries of *Sorbus aucuparia* – mountain ash.
- Xylitol is found in birch bark and in the dietary fibre of many fruits and vegetables.

ARE THEY LIKE ARTIFICIAL SWEETENERS? No. They are quite different. Sugar alcohols (polyols) are found in nature and are nutritive sweeteners with an average of 2 calories or 8 kilojoules per gram (versus the 4 calories or 17 kilojoules per gram of sugars and starches). Artificial sweeteners like saccharin and sucralose on the other hand are non-nutritive intense sweeteners with zero calories/kilojoules and come directly from the chemistry lab.

WHAT’S THE UPSIDE OF CHOOSING FOODS SWEETENED WITH SUGAR ALCOHOLS? They have a couple of advantages over sugars (sucrose, glucose, fructose, maltose, etc.)

- First, they may have less effect on blood glucose (blood sugar) because the body treats them as dietary fibre, which means they are slowly and incompletely absorbed from the small intestine into the bloodstream. See Perspectives below for GI values.
- And they are “tooth friendly.” They don’t provide energy for plaque bacteria in the mouth so don’t cause cavities. FDA has approved the use of a “does not promote tooth decay” health claim in labelling for sugar-free foods that contain polyols, and in other parts of the world they may be labelled “safe for teeth.”

WHAT’S THE DOWNSIDE OF CHOOSING FOODS SWEETENED WITH SUGAR ALCOHOLS?

Some (isomalt, lactitol, maltitol and maltitol syrup, mannitol, sorbitol, and xylitol) may have

a laxative effect and/or cause bloating, rumbling, gas, or diarrhea if you consume them in large amounts.

- Foods that contain more than 10 grams of lactitol, maltitol, mannitol, and xylitol per 100 grams, or more than 25 grams of erythritol, sorbitol, or isomalt per 100 grams, carry warning statements about the possible laxative effect on their labels. These products can be a particular problem for children and adolescents because of their smaller body size.
- In Europe, the labelling of foods containing more than 10 per cent added polyols must include the advisory statement “excessive consumption may produce laxative effects.” EU approval for erythritol excludes its use in beverages, as there is a concern that the laxative threshold value may be exceeded when it is consumed this way, especially by young people.
- Those following a low-FODMAP diet due to digestive conditions such as irritable bowel syndrome (IBS) may need to avoid them. (FODMAPs are sugars in foods that are poorly absorbed by the gut. The “P” stands for polyols.

HOW CAN I MONITOR MY INTAKE OF SUGAR ALCOHOLS? Products that contain sugar alcohols (polyols) will list them in the ingredients (in descending order by weight). However, you’ll be hard pressed to find out exactly how much you are getting per serving or per 100 grams because you won’t find any hard data in the carbohydrates section of the nutrition facts panel in most parts of the world.

In the USA, food manufacturers may *voluntarily* list the amount in grams per serving of sugar alcohols on the Nutrition Facts Label (under Total Carbohydrate). They may also list the name of a specific sugar alcohol if only one is added to the food. However, if a statement is made on the package labelling about the health effects of sugar alcohols or sugars (when sugar alcohols are present in the food), food manufacturers are *required* to list sugar alcohols.

Read More:

- [The Ultimate Guide to Sugars and Sweeteners](#) (Includes entries for individual sugar alcohols/polyols)
- [FDA](#)

WHAT’S NEW?

WILL A TREAT A DAY KEEP THE WEIGHT AWAY?

Possibly. Back in 2005, when researchers from the University of Toronto deprived a group of women volunteers of chocolate for a week, they found that the restrained eaters in the group experienced more intense, chronic chocolate cravings and swallowed approximately double the amount of the forbidden food when it was finally allowed. “When you cut something out of your diet, you’re more likely to overeat it when you do encounter it,” says lead author Janet Polivy.



A new study in *Psychological Science* suggests that indulgent foods like chocolate may in fact promote better choices. Duke University researchers designed a study to look at how viewing treats such as Snickers and Oreos affected the choice of healthier foods such as salmon or grapefruit. They invited the participants – 79 young adults from the Durham-Chapel Hill area – to fast for four hours beforehand, so they arrived hungry.

First, participants chose between indulgent foods (tasty but not healthy) and disciplined foods (healthy but not tasty). When given a simple one-to-one choice, say between canned salmon and Oreo cookies, nearly all preferred the indulgent snack. But researchers then took the same options and paired each with an indulgent food. For instance, participants saw salmon paired with Oreos, and Snickers paired with Oreos. Participants were told they had a 50 percent chance of getting either item in a pair. When presented with that choice, participants were twice as likely to choose the pair that included a healthy option, such as salmon and Oreos.

One possible explanation involves attention. The healthy item – salmon, say – was the different item among the choices, so it stood out visually. Researchers tracked subjects' eye movements and found that subjects spent more time looking at salmon and other healthy foods when they were surrounded by indulgent treats.

Paradoxically, the nearby presence of an indulgent treat can cause more people to opt for a healthy food, said study co-author Scott Huettel, professor of psychology and neuroscience at Duke. Context, in other words, affects food choices. "When people choose foods, they don't simply reach into their memory and pick the most-preferred food. Instead, how much we prefer something actually depends on what other options are available," Huettel said. "If you see one healthy food and one unhealthy food, most people will choose the indulgent food," he said. "But if you add more unhealthy foods, it seems, suddenly the healthy food stands out."

Read more

- [Indulgent Foods Can Paradoxically Promote Disciplined Dietary choices](#)

WHAT'S HOT?

CHOCOLATE

Observational studies suggest that the flavonoids in cocoa can help lower blood pressure, improve blood flow to the brain and heart, prevent blood clots, and fight cell damage. Cocoa, which is made from cacao beans (the seeds of the cacao tree), is one of nature's richest sources of flavonoids. Others sources include green and black tea, red wine, certain

fruits (berries, black grapes, plums, apples) and vegetables (artichokes, asparagus, cabbage, russet and sweet potatoes).



Vincenza Gianfredi and colleagues suggest flavanol intake from chocolate may be useful in preventing heart disease and stroke (cardio-cerebrovascular diseases) in their systematic review and meta-analysis published in *Nutrition*. Future studies should focus on the type of chocolate responsible for the beneficial effect they say and remind us in their conclusion that: “These results do not exclude that overconsumption of chocolate/cocoa can have harmful effects. Further studies are required to confirm these data before any recommendations about chocolate intake can be made.” We have reported on the upside and downside of chocolate on a number of occasions. Here’s a summary of some key points.

CHOCOLATE AND BLOOD GLUCOSE Although most chocolates have a relatively high added sugars content, they don’t have a big impact on your blood glucose levels. The average GI is around 45 because their high fat content slows the rate that the sugars are released from the stomach into the intestine and absorbed into the blood.

CHOCOLATE AND WEIGHT Most chocolates are energy dense – you get a lot of kilojoules (calories) in a little piece. This is good if you are trying to gain weight, travel long-distances with limited storage space, or participate in an endurance sport where it is an advantage to be able to carry around a concentrated and highly palatable source of carbohydrate and energy. But it is obviously not good if you are trying to lose weight. Sugar-free chocolate provides a modest saving in calories (see Product Review).

CHOCOLATE AND FATIGUE A nice cup of hot chocolate could be a safe, easy way to reduce fatigue symptoms associated with inflammation in people with multiple sclerosis (MS), according to international researchers reporting on a randomised controlled feasibility trial in *Journal of Neurology Neurosurgery & Psychiatry*. The research team asked 40 people with MS to drink high- or low-flavonoid cocoa every day for six weeks. They found those who drank high-flavonoid cocoa rated their fatigue as lower, and were also able to cover more distance in 6-minute walking tests. If these results can be confirmed in larger studies, dark chocolate and cocoa could be an easy (and tasty) way to reduce fatigue symptoms, the researchers say.

THE FATS IN CHOCOLATE In good quality chocolate, cocoa butter is the main source of fat. It is rich in a particular kind of saturated fat called stearic acid, which raises the ‘bad’ LDL cholesterol the least of the saturated fats, but raises the ‘good’ HDL cholesterol more. The net effect on your total blood cholesterol levels is not bad at all. The amount of cocoa butter

in chocolate varies. As a rough guide, better quality chocolate generally will have more cocoa butter.

HOW MUCH CHOCOLATE? “Keep your portions small,” says dietitian Nicole Senior, “because it’s the transition from cocoa to chocolate that adds the fat, sugar and kilojoules. Luckily, the intensity of flavour helps keep small amounts deeply satisfying. If I could borrow and modify an often-used phrase from Michael Pollan, I’d say this: Eat good honest chocolate; mostly dark; not too much.”

Read more:

- [Can chocolate consumption reduce cardio-cerebrovascular risk? A systematic review and meta-analysis](#)
- [A randomised double-blind placebo-controlled feasibility trial of flavonoid rich cocoa for fatigue in people with relapsing and remitting multiple sclerosis](#)

PRODUCT REVIEW

WITH OR WITHOUT SUGAR? WHAT’S IN CHOCOLATE?

People with diabetes don’t need to eat low or reduced-sugar chocolates to avoid high BGLs provided they don't eat too much. However, alternatively sweetened chocolates usually do provide fewer calories, an advantage if you are trying to lose weight. “Chocolate is a supremely pleasurable ‘sometimes food’ to be enjoyed in small amounts without guilt,” says dietitian Nicole Senior. “A good way to do this is to naturally limit the amount by eating the best quality chocolate, and ideally buying Fair Trade.”



We took a look at what you get with dark chocolate with or without added sugars for product review. We provide you with nutrition information for the serving size the manufacturer recommends as well as per 100 grams so you can compare the data on a level playing field. The nutrition data comes from the manufacturers’ websites.

LINDT EXCELLENCE DARK CHOCOLATE, 70% COCOA

Ingredients: Cocoa mass, sugar, cocoa butter, emulsifier (soy lecithin), vanilla.

Nutrition Facts Boiled, skin on	Per 20g serving	Per 100g
Energy (kilojoules)	470kJ	2530kJ
Energy (Calories)	112 Cal	602 Cal
Protein	1.9g	9.5g

Fat	8.2g	41g
–Saturated	4.8g	24g
Total carbohydrate	6.8g	34g
–Sugars (available)	5.8g	29g
–Starches (available)	0g	0g
–Fibre	Not provided	Not provided
Sodium	8mg	39mg

WELL NATURALLY NO SUGAR ADDED RICH DARK CHOCOLATE (70%)

Ingredients Cocoa mass & cocoa butter (70% cocoa solids), polydextrose, erythritol, soy lecithin, natural flavour, stevia.

Nutrition Facts	Per serving (3 pieces): 13g	Per 100g
Energy (kilojoules)	257kJ	1980kJ
Energy (Calories)	62 Cal	474 Cal
Protein	0.9g	6.8g
Fat	5.6g	43.2g
–Saturated fat	3.4g	26.2
Total carbohydrate	5.9g	45.3g
–Sugars (available)	0.1g	0.7g
–Starches (available)	0g	0g
–Fibre (includes polydextrose)	3.4g	26g
–Erythritol	1.8	13.9g
Sodium	9mg	70mg

CHOCOLOGIC NO ADDED SUGAR BELGIAN DARK CHOCOLATE

Ingredients Cocoa Mass, Alimentary Fibres (Dextrin, Inulin, Oligofructose), Sweeteners (Erythritol, Steviol Glycosides), Cocoa Butter, Emulsifier: Soya Lecithin, Natural Flavouring (Vanilla), Plain Chocolate contains Cocoa Solids 55% minimum

Nutrition Facts	4 segments (about 16g)	Per 100g
Energy (kilojoules)	240kJ	1808kJ
Energy (Calories)	58 Cal	432 Cal
Protein	0.7g	5.3g
Fat	4.6g	34.8g
–Saturated	2.9	21.9g
Total carbohydrate	7.2g	53.5g
–Sugars (available)	0.4g	3.2g
–Starches (available)	0g	0g
–Polyols (erythritol)	1.2	8.7g
–Fibre	4.7g	34.8g
Sodium	Not provided	Not provided

PERSPECTIVES: DR ALAN BARCLAY.

SWEET NOTHINGS?

Consumer demand for reduced sugar, no-added-sugar and sugar free foods and beverages has increased, as people look to cut back on processed foods with added sugars without cutting sweet treats out of their lives. Sugar alcohols or polyols are increasingly replacing them in foods and beverages, often along with intense sweeteners, as they provide similar bulk and texture to sugars but fewer kilojoules/calories. We put together the following table to show you how sugar alcohols compare with added table sugar (sucrose).

Sugar alcohol (polyol)	Made from	Sweetness relative to sucrose About ...	kJ per tsp (cals)	% available carbs (est.)	GI (est.)	GL per tsp
Sugar (sucrose)	Sugar cane	100% sweet	69	100	65	2.7
Erythritol	Starch (corn/maize or wheat)	60–80% as sweet	4	0	N/a	N/a
Hydrogenated starch hydrolysate	Starch (corn/maize potato or wheat)	25–50% as sweet	53	40–50	67-85	1.4
Isomalt	Sucrose (sugar beet)	45–65% as sweet	46	10	60	0.3
Lactitol	Whey	40% as sweet	46	0	6	0
Maltitol	Starch (maltose)	75–90% as sweet	55	40	69	1.2
Mannitol	Starch (fructose) Seaweed	50–70% as sweet	38	0	N/a	N/a
Sorbitol	Starch (maize, wheat, potato or cassava/ tapioca)	60% as sweet	59	25	28	0.3
Xylitol	Corn cobs, birchwood waste, bagasse	Equally sweet	59	50	21	0.4

A couple of points. While sugar alcohols occur naturally in many plant foods, they are extracted for the food industry from various starches and sugars. You may also notice that the GI values differ from some of the claims you will see on-line and on product packaging. This is because much of the original GI testing was done before ISO 26642:2010

(Food products -- Determination of the glycaemic index (GI) and recommendation for food classification) was gazetted in 2010. The ISO sets out how much available carbohydrate each sugar alcohol (polyol) provides and therefore how much is required for GI testing. Prof Tom Wolever has adjusted older GI test results based on the amount of available carbohydrate they contain, and it's his result we have included.

As they are generally poorly absorbed in our intestines (with the notable exception of erythritol), polyols all provide much less energy than regular sugars. But, with the exception of xylitol, they are not as sweet as sucrose. Therefore, more polyols need to be used to attain the same sweetness in a product, or (more typically), they are blended with an intense sweetener to achieve the same sweetness as sucrose. A very common example is erythritol, which is on average only 70% as sweet as sucrose. It is typically blended with steviol glycosides ("stevia") to achieve a final product that has a similar bulk, texture and taste as sucrose, that is also "natural".

Most have a lower GI and all have a lower glycemic load (GL) than sucrose. However, most do provide some available carbohydrate, so if consumed in large amounts, they will have an effect on blood glucose levels – though much less than sucrose.

Finding them in the packaged foods or beverages you buy can be tricky. The good news is that ingredient lists must include the name of individual sugar alcohols/polyols if they are used. The bad news is that they are not a mandatory component of the Nutrition Facts panel in most countries, and therefore are rarely included. The USA is the notable exception where they must be included under Total Carbohydrate when a "sugar free", "no added sugar" or other sugar claim is made.

Given they are a kind of carbohydrate and excessive consumption can cause wind, bloating and diarrhoea, we think this "invisibility" could be a problem for a significant proportion of the population. It also reminds us that carbohydrates are generally labelled poorly and that it's not the sugars that are hidden. It's the sugar alcohols/polyols.

We like the following Nutrition Facts panel for ProYo ice cream and would like to see this approach or something similar widely adopted so people can see what's sweetening the processed food they buy.

Nutrition Facts

Serving Size: 1/2 cup (81g)
Servings Per Container: 3.5

Amount Per Serving

Calories 120 Calories from Fat 10

% Daily Value

Total Fat 1.5g	2%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 20mg	7%
Sodium 55mg	2%
Total Carbohydrate 19g	6%
Dietary Fiber 3g	12%
Sugars 9g	
Sugar Alcohol 7g	

Protein 10g **20%**

Vitamin A 0% • Vitamin C 2%

Calcium 10% • Iron 0%

*Percent Daily Values are based on a 2,000 calorie diet.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carb.		300g	375g
Dietary Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

Ingredient list: Skim Milk, Whole Milk, Whey Protein Concentrate, Xylitol (Natural Sweetener), Cane Sugar, Inulin, Natural Flavors, Ground Vanilla Bean

Read more:

- [ISO 26642:2010](#) (Food products -- Determination of the glycaemic index (GI) and recommendation for food classification).
- Wolever, T. [The glycaemic index: a physiological classification of dietary carbohydrate.](#)
- US FDA. [A food labelling guide](#): guidance for industry.

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BEST FOOD FORWARD

ICE CREAM – IT'S IMPACT ON OUR PLANET AND HEALTH

"You scream, I scream, we all scream for ice cream" is a soundtrack to food joy. Now vegans, sustainable shoppers and calorie-conscious consumers can get their food joy fix with many big-name brands launching products to cater for their dietary desires. But are these alternative ice creams healthier for us and better for the planet?



Plant-based foods generally use fewer resources (water, feed, energy) and have lower greenhouse gas emissions. However, not all vegan foods are sustainable options due to their high level of processing – they use more energy and their long supply chains add transport inputs and create emissions. For example, the new *Magnum Classic Dairy-Free* ice cream contains pea protein, but quite a number of steps and resources are required to turn peas into pea protein and then add it to ice cream. Remember, these vegan products are developed to meet consumer demand and increase market share, not to boost sustainability. Big picture. The planet could do with fewer ice creams (and highly processed foods generally) rather than vegan ones

Today, there are ice creams on the market to cater for nearly every diet: vegan, low-calorie, higher protein, gluten-free and even “guilt-free” (whatever that means). When we compared the nutrients in *Magnum Classic* to the new *Magnum Classic Dairy-free* (Unilever Australia) per 100 grams, we found that the nutritional profiles are quite similar, with a similar ratio of fat to sugar to obtain the desired flavour and texture. The protein content of the *Magnum Classic* is slightly higher than its dairy-free counterpart. But (and it’s a big but) they are both still highly processed, discretionary (treat) foods. They both contain plenty of calories and roughly half your daily saturated fat allowance.

Nutrient	Magnum Classic Per 100g	Magnum Classic Dairy-free Per 100g
Energy	1330kJ 320 Calories	1380kJ 330 Calories
Protein	3.9g	1.6g
Fat	21.3g	20.4g
- Includes saturated fat	14.4g	14.3g
Carbohydrate	27.1g	33.8g
-Includes sugars	14.6g	27.6g
Sodium	60mg	45mg

The take-home: “Low-calorie” and “guilt-free” ice creams are probably not as virtuous as the marketing suggests. While they may be a little lower in calories (or sugar) than the real deal, they are still highly processed treat foods best enjoyed occasionally. And unlike the

real deal, they may also come with an unwanted side of diarrhoea, bloating or gas for some people, as they are often sweetened with sugar alcohols (polyols).

It's OK to enjoy ice cream as a treat, but enjoy a modest portion and savour every mouthful. At other times, choose fruit and yoghurt such as our favourites Greek yoghurt with honey and walnuts or seasonal fresh fruit salad with vanilla yoghurt. For a treat that satisfies, try a portion of Kate McGhie's Banana and Peanut Ice Cream recipe in this issue of GI News. Add a drizzle of melted dark chocolate if you fancy it.

Ice Cream in a Nut Shell

- Vegan and low-calorie ice creams are still highly processed "sometimes" foods that have an impact on our environment and health, just like regular ice cream.
- No foods are off-limits; enjoy a good quality ice cream from time to time.
- For everyday sweet treats, choose satisfying wholefoods such as fruit and yoghurt.

Thanks to Rachel Ananin aka TheSeasonalDietitian.com for her assistance with this article.

In this series we explore how you can reduce your ecological impact through your healthy food choices. We'll help you do your bit for the environment, one mouthful at a time.

Nicole Senior is an Accredited Nutritionist, author, consultant, cook, food enthusiast and mother who strives to make sense of nutrition science and delights in making healthy food delicious.

Contact: You can follow her on [Twitter](#), [Facebook](#), [Pinterest](#), [Instagram](#) or check out her [website](#).

GOOD CARBS FOOD FACTS

PEANUTS

We think of peanuts as nuts, and for all culinary, research and nutritional purposes they are. But they aren't a typical "nut" – botanically a fruit whose ovary becomes hard at maturity. This is because along with peas, beans and lentils, they belong to the legume family, whose members produce those familiar pods typically with one to twelve seeds and whose root nodules are home to the helpful nitrogen-fixing Rhizobium bacteria.



Peanuts (also called groundnuts) are the seeds of *Arachis hypogaea* and originally came from South America. The earliest evidence of people tucking into them as a food crop (along with squash, beans, quinoa and coca) comes from Nanchoc Valley in northern Peru where macro and micro-fossils (from the calculus of human teeth) suggest they were part of the local diet between at least 9500 and 7000 BP. They arrived in Europe with the conquering Spaniards at the end of the fifteenth century and then speedily made their way around the world to Asia, Africa and North America.

Dr George Washington Carver is considered by many to be the father of the peanut industry in the US. He began his peanut research in 1903. He suggested to farmers that they rotate their cotton plants (which deplete the nitrogen in the soil) and cultivate peanuts which puts it back.

With their protein, fibre, unsaturated fats, vitamins, minerals, trace elements and phytochemicals, these popular nibbles pack a nutritional punch. They are also rich in substances considered protective for the heart: an amino acid (building block of protein) called arginine; vitamin E, folate, copper (a mineral) and plant sterols.

What about aflatoxin? Processed peanuts are quality-controlled for the presence of fungus that produces a toxin called aflatoxin. Because peanuts in the shell are not screened, throw away any mouldy ones.

What about peanut allergy? This is an increasingly common food allergy especially in children. One-third of all peanut-allergic people are also allergic to tree nuts such as brazil nuts, hazelnuts, walnuts, almonds, macadamia nuts, pistachios, pecans, pine nuts and cashews. See Read More for fact sheet.

Good Carbs Food Facts	
Dry roasted peanuts, without salt	
★ ★ ★ ★ ★	
Glycemic index – 23	
Gluten free	
Serving size – 28 grams or 1 ounce	
Kilojoules	697
Calories	166
Protein	6.9g
Fats – Total	14.08g
Includes:	
–Saturated fat	1.9g
–Unsaturated fat	11.3g
–Cholesterol	0
Saturated : unsaturated fat ratio	0.2
Carbohydrates – Total	6.3g
<i>Available</i>	
Includes:	
--Natural sugars	1.39g
–Natural starches	2.51g
–Added sugars	0
–Added starches	0
<i>Unavailable</i>	
Includes:	
–Dietary fibre	2.4g
Sodium	2mg
Potassium	180mg
Sodium : potassium ratio	0.01
Glycemic load	Less than 1
Diabetes exchange	N/A
Ingredients: Peanuts	

Source: [USDA](#)

Read more:

- [Peanut and tree nut allergy](#)

IN THE GI NEWS KITCHEN

THE GOOD CARBS COOKBOOK

	<p><u><i>The Good Carbs Cookbook</i></u> (by Alan Barclay, Kate McGhie and Philippa Sandall) published by Murdoch Books helps you choose the best fruits, vegetables, beans, peas, lentils, seeds, nuts and grains and includes 100 recipes using them to enjoy every day, for breakfast, lunch, dinner and dessert. The recipes are quick to cook (mostly), long in flavour and full of sustaining goodness. There is a nutritional analysis for each and tips for the novice, nervous, curious or time-starved cook.</p>
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BANANA AND PEANUT ICE CREAM

Blitzed frozen bananas make this one of the easiest and amazing ice-cream recipes ever. Good Carbs Cookbook author, Kate McGhie, says a powerful blender will do the job better than a food processor. They go from crumbly and gooey to looking a bit like oatmeal and finally achieve the consistency of a soft serve ice-cream. If you like, replace the chopped roasted peanuts with ½ cup blueberries. Preparation time: 15 minutes + freezing • Serves: 6



4 large ripe bananas, peeled cut into chunks and frozen
¼ cup crunchy peanut butter
¼ cup runny honey
⅔ cup natural yoghurt
⅓ cup chopped roasted peanuts

Put the frozen banana into a blender and blitz until smooth and creamy. (Because the bananas are frozen solid this is a noisy process.) When the mixture is smooth add the peanut butter, honey, yoghurt and peanuts then pulse-blend. Pour the mixture into a freezer-proof container with a lid and freeze.

Per serving

Energy: 1125kJ/270cal; Protein 8g; Fat 11g (includes 2g saturated fat; saturated : unsaturated fat ratio 0.22); Available carbohydrate 34g (includes 30g sugars, 2g starches); Fibre 3.5g; Sodium 50mg; Potassium 470mg; sodium to potassium ratio 0.11

LOW GI LIVING

	<p>The Glycemic Index Foundation, a not-for-profit health promotion charity, have recently launched a new electronic newsletter to share their low GI recipes along with the latest news about GI and better carbs. It's aimed at the general community as well as those living with diabetes. Click the link to sign up to receive Low GI Living in your mailbox.</p>
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MOROCCAN STYLE CHICKEN WITH PEARL COUSCOUS

Ready in just 40 minutes, this fibre and protein rich recipe from Gabriel Gaté is sure to be a crowd pleaser. It's quite a large meal and we feel it could easily stretch to more than the four serves they suggest. • Serves: 4.



1 tbsp extra virgin olive oil
2 tsp mustard seeds
tsp cumin seeds
½ tsp cinnamon powder
1 tsp chilli paste
¼ tbsp tomato paste
½ tsp salt and ½ tsp freshly ground black pepper
8 skinless chicken drumsticks
½ brown onion, finely chopped
1 red capsicum, diced
1 tsp ground cumin
1 cup shelled peas
250g (9oz) pearl couscous
2 cups low/reduced-salt but strong chicken stock
a handful of coriander leaves

Preheat the oven to 180°C (350°F). In a bowl mix 2 teaspoons of olive oil with the mustard seeds, cumin seeds, cinnamon, chilli paste, the tomato paste and a little salt and pepper. • Place the chicken drumsticks in a bowl and season with the spicy oil mix. Place the chicken on an oven rack and bake in the preheated oven for about 30 minutes, turning the drumsticks from time to time. • Heat the remaining 2 teaspoons of olive oil in a non-stick pan. Add the chopped onion and ground cumin and stir for 1 minute. Add the diced capsicum and stir on medium heat for 3 minutes. • Add the peas and pearl couscous and stir well for 30 seconds, before adding the chicken stock. Bring to a simmer, cover with a lid and cook for 10 minutes on very low heat. • Serve the chicken drumsticks on a bed of pearl couscous garnished with coriander leaves and a large, crispy garden salad on the side.

Per serve

3070 kJ/ 730 calories; 68g protein; 25g fat (includes 6g saturated fat; saturated : unsaturated fat ratio 0.32); 56g available carbs (includes 5g sugars and 51g starch); 4g fibre; 960mg sodium; 1330mg potassium

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