

GI News—May 2009



- Taxing soft drinks
- Low GI diet halves women with gestational diabetes needing insulin
- Sweetening with stevia
- ‘GI the most critical tool in managing our child’s diabetes.’
- Low GI sugar: your questions answered
- New GI values

In a ‘Perspective’ piece in the [*New England Journal of Medicine*](#), Yale University’s Kelly Brownell and New York City Health Commissioner Thomas Frieden write that a penny-per-ounce tax on sugared beverages could both reduce consumption and generate revenue for needed programs to prevent obesity among children and adults. They review scientific studies that show that taxes could substantially reduce consumption of sugared beverages, cut caloric intake and help prevent obesity and diabetes as well as the consequences of these conditions. In ‘Food for Thought,’ nutritionist and economist, Prof Barry Popkin explains why soft drinks are only part of the problem and drinking more water is an easy step we can all take to better health.

Good eating, good health and good reading.

GI News Editor: Philippa Sandall

Web Design and Management: Scott Dickinson, PhD

Food for Thought

Our drink problem

‘How we drink and what we drink today is the result of major advances in food processing, distribution and aggressive marketing campaigns on the part of the beverage industry,’ says Prof Barry Popkin in his new book, *The World Is Fat*. ‘Throughout the world, from about 1990 on, the beverage industry has been successful in marketing the idea of always drinking: drink when you are active, drink when you are resting and relaxing, and drink when you go to a party. With functional beverages now hitting the marketplace you can also drink for extra energy, drink for better skin, drink for more vitamins, and drink for extra antioxidants. And all these drinks come with a bonus: calories.

About the time of World War II, we Americans drank mostly water, tea, coffee, a limited amount of beer and hard alcohol, and whole milk, and our calorie intake from beverages was between 100–200 calories (420–840 kJ) a day. By 2002, we more than doubled our intake of caloric beverages, and the average American is now getting around 400 calories (840 kJ) a day from

beverages. From 1965 to 2002, over two-thirds of this increase (and half our total calories from beverages) was due to fruit juices and soft drinks.

At the same time we are gulping down these calories, we aren't cutting back on our food intake to compensate. The consensus among scientists from dozens of meta analyses, large scale and smaller epidemiological studies, clinical and animal work is that there is no dietary compensation when we consume a beverage with calories. This includes sugar-sweetened beverages and even fruit juice, lattes, heavily sweetened teas, energy drinks and vitamin waters (currently we don't know where milk and milk drinks stand). In other words, with these items being drunk instead of water, all the calories from these are added to our overall energy intake and food calories are not reduced. A large body of literature shows consumption of these beverages are linked to weight gain, abdominal obesity, diabetes and heart disease. Studies have been undertaken in all continents with similar results.

My favourite way to help people lose weight is to look at what they drink over the course of a typical day. It's easy to cut out some Coke, Pepsi or Mountain Dew or to cut down to one beer or one glass of wine. These small reductions matter over time. If you have diabetes or if you've recently had a heart attack, for example – a shift to only noncaloric beverages will do it for many people. The top 40% of caloric beverage drinkers in the US consume over 760 calories (3,190 kJ) a day from beverages. Obviously cutting out some of these calories would result in immediate weightloss.'

– Barry Popkin

For more on why We Are What We Drink, check out: [*The World Is Fat*](#).

News Briefs

Why low GI foods make you feel full

Researchers at the Department of Nutrition and Dietetics at King's College London report that low GI meals increased the levels of GLP-1 gut hormone levels, leading to the suppression of appetite and the feeling of fullness in a paper presented at the annual society for endocrinology BES meeting in the UK in March 2009.

Dr Tony Leeds, and Reza Norouzy looked at the effects of a single low versus high GI meal on gut hormone levels in 12 healthy volunteers. Each participant ate an identical moderate GI meal for dinner, fasted overnight, and was given either a low GI (46) or high GI (66) meal for breakfast. Blood samples were then taken every 30 minutes for 150 minutes, and levels of the gut hormone GLP-1 and insulin measured. GLP-1 is a hormone produced by the gut that has been shown to cause a feeling of fullness and suppression of appetite. Volunteers who ate a low GI breakfast had 20% higher blood plasma levels of GLP-1 and 38% lower levels of insulin compared to those who had consumed a high GI breakfast.

Researcher Dr Reza Norouzy said: 'Our results suggest that low GI meals lead to a feeling of fullness because of increased levels of GLP-1 in the bloodstream. We now need to expand the

findings of this preliminary study and look at the effects of low versus high GI meals in a larger group of people.’

– Kings College London press release.

Low GI diet halved number of women with gestational diabetes needing to use insulin

Women with gestational diabetes can halve their chances of needing insulin by following a low GI diet, according to a new Australian study. Sixty-three women (aged 18–40, all non smokers) followed either a low GI diet or a conventional high fibre (and higher GI) diet. Women on the low GI diet consumed foods such as whole grain pasta and breads, and unprocessed, high fibre breakfast cereals. The control group was advised to eat a high fibre, low sugar diet with no specific guidelines with respect to GI. Both diets met current dietary recommendations for pregnant women.

The results published in [Diabetes Care](#), show that 29% of the women on the low GI diet required insulin, while 59% on the higher GI diet needed insulin. Of the 19 women in the control group who met the criteria for starting insulin, 9 were able to avoid insulin use by switching to a low GI diet.

Gestational diabetes is the type of diabetes that women can develop during pregnancy. In any pregnancy, some insulin resistance develops as a pregnant woman’s insulin needs are 2–3 times her normal needs. But, if you are overweight at the same time, it’s worse. And if your body can’t produce enough insulin to overcome the insulin resistance, your blood glucose levels increase above normal. If gestational diabetes is undetected and untreated, the baby is at risk of growing too big in the womb, which can make the birth difficult. The baby is also at risk of other complications and is more likely to be overweight as a child and develop health problems such as high blood pressure, heart disease and diabetes later in life.

About 5%, or one in every 20 pregnant women, will develop gestational diabetes, and those numbers are increasing. Most women can manage their gestational diabetes with healthy eating, exercise and regular blood glucose monitoring. Here are dietitian Kaye Foster-Powell's healthy eating tips for women with gestational diabetes.

- Eat regular meals and mid-meal snacks, and avoid getting overly hungry.
- Limit sugary foods and drinks including soft drinks, cordials, confectionery and desserts.
- Limit fatty foods, especially foods high in saturated fats such as crisps, pastries, take-aways, butter and cream, biscuits and cakes.
- Include low GI (slow release) carbohydrate foods at each meal and snack.
- Eat a wide variety of nutritious foods

And be active in as many ways as you can each day!

Great discoveries in nutrition, and the challenges we face

The past 30 years have yielded major new discoveries in nutrition and health. At a one-day symposium at Wageningen University the audience voted on the greatest discoveries in nutrition since 1976 – and on the greatest nutrition and health challenges ahead. The results have now been published in the [European Journal of Clinical Nutrition](#). The participants chose ‘Folic acid

prevents birth defects' as the greatest discovery in nutrition science since 1976. GI ('Interaction of carbohydrate/glycemic load with insulin resistance' – Jenkins) came in at #12 and GI News' Prof Trim (aka Prof Garry Egger with Prof Boyd Swinburn) at #7 with 'Obesity is a normal response to an abnormal environment'. 'Controlling obesity and insulin resistance through activity and diet' was voted as being the biggest challenge we face with 'Can diet delay cognitive decline' coming in as the #2 challenge for the years ahead.

The Joy of Cooking ... too much

Eating out is often blamed as being one of the key culprits for gaining weight, but a letter published in the [*Annals of Internal Medicine*](#), suggests that what we do in our own homes may be just as bad. In the study, the researchers found recipes for four, that would have served around seven people in 1936.

Examining 18 'classic' recipes found in seven editions of the 'classic' *The Joy of Cooking* since it was first published in 1936 until the 2006 update, Dr Brian Wansink and Dr Collin Payne found that the average calories per serving jumped 63% in 70 years in 17 of the 18 recipes. In calories that's from about 268 calories (1125 kJ) per serving in 1936 to about 436 calories (1831 kJ) in 2006.

In analysing just the calorie density of the recipes – the total amount of calories, regardless of serving size – the foods in the 2006 edition had 37% more calories than the 18 recipes did in the 1936 edition. Similar increases were found in other classics such as the *Better Homes and Gardens Cook Book*.

Speaking to Susan Lang of *Cornell Chronicle* Wansink said: 'This jump in calories was influenced by both changes in ingredients – usually increases in fat and sugar – and changes in serving size. Family size has gotten smaller, but calorie content and portion sizes have gotten bigger'. The researchers cite beef stroganoff as an example. In the 1997 edition, the recipe called for three tablespoons of sour cream (that's less than ¼ cup). The 2006 edition calls for 1 whole cup. The study also found that some of the added calories came from substituting ingredients, such as extra meat instead of vegetables.

Meat and mortality – the real risks

High intake of red and processed meats is associated with increased risk for death in older adults, while white meat may have a protective effect are the findings of a study published in [*Archives of Internal Medicine*](#).

More than a half million adults aged 50 to 71 completed food-frequency questionnaires and then were followed for 10 years. The study relied on people's memory of what they ate, which can be faulty. In the analysis, the researchers took into account risk factors such as smoking, family history of cancer and high BMI.

Over 10 years, eating the equivalent of a quarter-pound hamburger daily gave men in the study a 22% higher risk of dying of cancer and a 27% higher risk of dying of heart disease. That's compared to those who ate the least red meat, just 5 ounces (150 g) per week. Women who ate large amounts of red meat had a 20% higher risk of dying of cancer and a 50% higher risk of

dying of heart disease than women who ate less. High intake of processed meat was also associated with increased mortality risks. Conversely, consumption of white meat (poultry and fish) was associated with significantly decreased risks for total and cancer-related mortality.

In an [accompanying editorial](#), Prof Barry Popkin, director of the Interdisciplinary Obesity Center at the University of North Carolina at Chapel Hill, wrote that reducing meat intake would have benefits beyond improved health. Livestock increase greenhouse gas emissions, contributing to global warming, he wrote, and nations should reevaluate farm subsidies that distort prices and encourage meat-based diets. ‘We’ve promoted a diet that has added excessively to global warming,’ Popkin said in an interview. Successfully shifting away from red meat can be as easy as increasing fruits and vegetables in the diet, said Elisabetta Politi of the Duke Diet and Fitness Center in Durham, N.C.

What’s new?

www.foodwatch.com.au has had a facelift

Catherine Saxelby’s website is a one-stop information shop on all things food and nutrition. It’s just had a facelift and now offers product reviews (goji berries, vitamin waters), free fact sheets on topics like fibre, salt and portion caution, expert articles, and delicious recipes to try. You can sign up for Catherine’s free monthly newsletter, take part in one of her regular polls on nutrition and food hot topics, or post your own comments on her blog: Catherine’s News, Chews and Reviews!

www.eattobeatcholesterol.com.au

Interested in controlling your cholesterol and looking after your heart? Check out Nicole Senior’s [website](#) where you’ll find the latest research, news you can use, fascinating facts about heart-friendly food, food myths, frequently asked questions, and the recipe of the month. Nicole presents the scientific facts in a way that’s easy to understand and, importantly, to put into practice. “It’s all about food that’s good to eat and good for you”, says Nicole.

Foodwatch with Catherine Saxelby

Stevia to the rescue in the noncaloric beverage business

Zero-calorie sweetener, stevia (*Stevia rebaudiana*) hit the headlines in the *Wall Street Journal* in December 2008 with the announcement that the FDA were approving two rebiana-based sweeteners (from rebaudioside A, a highly purified extract of stevia) as being safe for use as a general purpose sweetener in foods and beverages. Australia’s food regulator, FSANZ, had granted approval earlier in 2008.

Cargill is [marketing](#) its rebiana-based sweetener Truvia with Coca-Cola; Merisant is working with PepsiCo with their version, Purevia. Both have developed non-nutritive tabletop sweeteners from it.

In what they expect to be the first of many new low- and zero-calorie beverages sweetened with Truvia, Coca Cola has launched a reduced-calorie version of Sprite, called Sprite Green, in the US. Odwalla, also owned by Coke, has added two new reduced-calorie juice drinks to its product line – Mojito Mambo and Pomegranate Strawberry. Apparently not all flavours taste good sweetened with stevia. Citrus flavours taste the best – so we may not see Coke Zero with stevia.



Rebaudioside A – stevia extract

Not to be outdone, Pepsi has three flavors of a stevia-sweetened zero-calorie SoBe Lifewater in Fuji Apple & Pear, Black and Blue Berry, and Yumberry Pomegranate with added vitamins as well. They've also just brought out an orange-juice drink called Trop50 with 50% less sugar and calories and the juice of freshly squeezed oranges.

Why the interest in stevia? It's all part of a move away from aspartame (Equal, Nutrasweet) and acesulphame K towards more 'natural' substitutes for sugar for diet drinks. Despite being cleared twice by food authorities, aspartame has been plagued by persistent internet rumours linking it to brain cancer and Alzheimer's that refuse to go away. Trop50, for example, replaces Tropicana's previous Light 'n Healthy orange juice beverage that was made with an artificial sweetener.

Stevia and blood glucose Stevioside does not appear to affect blood glucose levels, good news for those with diabetes. The human body does not metabolise the sweet glycosides and they pass through and are eliminated, so the body does not obtain any kilojoules/calories. You'll see it sold as a white powder, a liquid extract or as tablets for tea or coffee. It has a slight liquorice flavour. It works well in beverages or yoghurts but not in biscuits or muffins as it can't duplicate sugar's ability to add bulk and contribute to the golden-brown colour of baked goods.

So far, so good. If you're after a non-kilojoule sweetener that's more 'natural', stevia hits the spot. It will be interesting to see how well its safety remains over time and how consumers take to the taste of these new drinks.

Background on stevia Native to South America, the leaves of this semi-tropical shrub are around 30 times sweeter than cane sugar but without the kilojoules/calories. As a herb, the leaves can be used fresh or dried – less than 2 tablespoons of crushed dried leaves can replace a cup of sugar, although it's hard to be specific as actual sweetness can vary. You can buy stevia leaf powder online from specialty spice merchants such as Herbies Spices (www.herbies.com.au). Ian Hemphill says 'use sparingly as there is a bitter aftertaste if too much is added to food.'

Catherine Saxelby is an accredited dietitian and nutritionist and runs the Foodwatch Nutrition Centre. For more information on lupin and healthy eating, visit www.foodwatch.com.au.

Low GI Recipes of the Month

American dietitian, **Johanna Burani** invites *GI News* readers to try recipes from her Italian kitchen (photographed by Sergio Burani).

Herbed fettuccine nests

Here is a terrific tasting pasta dish that is easy to make and just as easy to digest. The ingredients are few and unassuming, yet with careful attention given to their quality and freshness, this humble dish is fit for a king. Buon appetito! Serves 4

230 g (8 oz) 100% semolina fettuccine (or pappardelle) nests (8 nests)
4 tablespoons unsalted butter
1 heaping tablespoon minced fresh sage
1½ teaspoons freshly squeezed lemon juice
Salt and pepper to taste



- Slowly melt the butter in a small saucepan. Shake or stir the pan to allow the butter to melt evenly. A foam will form and when the butter starts turning brown (approximately 3½ minutes), remove it from the heat. Add in the lemon juice, sage, and salt and pepper to taste. Keep warm
- In the meantime, cook the pasta according to the packet directions until al dente. Cooking time should be between 6–8 minutes. Drain the pasta, return to the pot, pour over the sauce and mix thoroughly. Serve with grated Parmesan cheese.

Per serving (1 cup)

Energy: 1310 kJ/ 312 cal; Protein 7 g; Fat 12 g (includes 7 g saturated fat and 30 mg cholesterol); Carbs 22 g; Fibre 2 g

UK dietitian **Azmina Govindji** shares recipes from her new book (with chef Sanjeev Kapoor)

Healthy Indian Cooking for Diabetes photographed by Yuki Sugiura. It's available from bookshops in the UK, from Amazon and in ANZ online from www.greatideas.net.au.

Bengali mixed vegetables (Chorchori)

The story goes that in many Bengali households, shopping for fresh vegetables was the duty of the man of the house; and this was done once a week on his day off from work. By the end of the week, the lady of the house was left with bits of all sorts of vegetables – hence this nutritious medley. Eat it with a small amount of rice, dal and natural low fat yoghurt.

1 tablespoon mustard oil
1½ teaspoons panch phoron (Bengali five-spice)
½ teaspoon red chilli powder
125 g (4 oz) cauliflower, broken into florets
2 medium potatoes (200 g/7 oz), diced
Piece orange-fleshed sweet potato (100 g/3½ oz), diced
100 g (3½ oz) peeled pumpkin, diced
1 medium size long brinjal, diced
6–8 French beans cut into 1 cm/½ in pieces
6–8 spinach leaves, shredded
¼ teaspoon turmeric
2 green chillies, slit
½ teaspoon sugar
1 teaspoon salt



- Heat the oil in a non stick pan until it reaches smoking point. Remove from the heat, cool and heat the oil again on a medium heat. Add the panch phoron and, when it begins to crackle, add the chilli powder, stirring briefly.
- Stir in the prepared vegetables, followed by the turmeric, chillies, sugar and salt. Reduce the heat, cover, and cook for 8–10 minutes, stirring occasionally or until the potatoes are cooked. Uncover and stir fry for 1 minute or until the chorchori is dry.

Per serve (without accompaniments)

Energy: 532 kJ/ 126 cal; Protein 4 g; Fat 4 g (includes 0.5 g saturated fat); Carbs 19 g; Fibre 4 g; 538 mg sodium

Busting Food Myths with Nicole Senior

Myth: Heart attack is a men's problem

Fact: Heart disease is the leading cause of death in women (in the US, Australia & the UK)

I always prick up my ears when a high-profile person dies from a heart attack. The list is very long, and not really surprising when you consider heart disease is the developed world's biggest killer: singer Robert Palmer (1949 – 2003), McDonalds CEO Jim Cantalupo (1944 – 2004), US NBC political journalist Tim Russert (1950 – 2008), major league baseball pitcher Darryl Kile (1968 – 2002) and disc jockey Wolfman Jack (1939-1995). In Australia: mobile phone mogul 'Crazy John' Ilhan (1965-2007) and rock legend Billy Thorpe (1946-2007). Then there are those who've gone under the knife: former US president Bill Clinton, and TV personalities Larry King and David Letterman. Dick Cheney's had four heart attacks. But hang on, these are all men. The only famous woman I could find online was Phyllis Diller who had a heart attack in 1999. This list would seem to suggest heart disease is something only men need worry about, but is this true?

In fact, heart disease is the leading cause of death in women (US, Australia & UK). While breast cancer is the oft-quoted baddie, four times as many women die of heart disease than breast cancer. Experts estimate that one in two women will die of heart disease or stroke, compared with one in 25 women who will die of breast cancer. Sixty percent more women in the US die of cardiovascular disease (heart attack and stroke) than all cancers combined. While both men and women have heart attacks, women are more likely to die from it: no second chance, no opportunity to change, no chance to say goodbye – just gone.

A recent survey revealed 70% of Australian women were unaware that heart disease is the main cause of death among females. "It is a common misconception that heart disease is a 'male problem', with women tending to dismiss their symptoms and not seek help until the condition becomes serious", said Heart Foundation (Australia) CEO Dr Lyn Roberts. "But heart disease should not to be underestimated. It is a real issue for all women and younger women should heed our warning and take action now to reduce their risk. Most women recognise that smoking and obesity are major heart disease risk factors along with saturated fat, lack of exercise and family history. Worryingly however new research suggests that there is a poor understanding of the dangers posed by high cholesterol, high blood pressure and diabetes."

Heart disease tends to strike women at an older age because female hormones are protective until menopause. But afterwards this protection disappears. Menopause signals a biological change, but requires behavioural change to best maintain health and wellbeing. For many women, this involves looking after number one for a change, instead of always putting the needs of others first. A heart-healthy diet and regular exercise are more important than ever and the best known

anti-ageing therapy as well.

In Australia, May 3-9 is Heart Week and marks the beginning of the Go Red for Women awareness campaign. Coincidentally, it's also Mother's Day around the same time (US and Australasia). If you'd like to spoil yourself (or your mum) with a healthy gift that keeps on giving, check out Nicole's books at www.eattobeatcholesterol.com.au

Move It & Lose It with Prof Trim

Vitamin D deficiency: a lack of sunlight or something else?

Vitamin D is a pro-hormone, which comes from sunlight, or artificial UV light exposure, as well as some types of foods (oily fish, some meat sources and fortified processed foods). Sources from sunlight however are more potent. And Australians have plenty of this. So it seems hardly likely that they would be suffering from a vitamin D deficiency. Yet that's just what [recent evidence](#) shows. Surveys support the fact that up to half of the elderly may be vitamin D deficient, leading to problems of bone weakness.

Some experts have suggested that our skin cancer messages may have been too successful – that people aren't getting the 20 minutes of sunlight exposure a day which is sufficient. Others say that sun creams may now be too effective. This latter idea has been dismissed because adequate UV light gets through sun cream with sufficient exposure. A more likely scenario is the rise of obesity and inactivity, which also cause Vitamin D deficiency. Perhaps, again, it's the whole lifestyle that needs to be looked at.

For more information on weight loss for men, check out [Professor Trim](#).

Curly Questions

What's the GI and GL of raw wheat bran. We have a brand here in the UK called Jordans Wheat Bran which is quite coarse.

If your raw wheat bran is the same as ours here in Australia, then this is a very low carbohydrate product that can't have a GI or GL (it's too low to test). This means it won't cause any rise in blood glucose levels. In fact, studies show that it will have a 'second meal' effect, which means it will lower the blood glucose response to the next meal.

Are products containing sucralose in the high GI range? If so, are Swerve, stevia, Truvia, or xylitol acceptable sugar substitutes?

By sucralose we assume you mean Splenda. Sucralose is a non nutritive sweetener and is hundreds of times sweeter than table sugar (sucrose), has no effect on blood glucose levels and does not provide any calories because it is not absorbed into the body. It contains no carbohydrate and does not have a GI. There's an excellent chapter on sugar and sweeteners in

[*The New Glucose Revolution for Diabetes*](#) (*The Diabetes and Pre-diabetes Handbook* in Australia) by Prof Jennie Brand Miller et al PLUS a great ‘What sweetener is that?’ summary table. The information there should answer many of your questions about sugars and sweeteners of all kinds.

Email your curly question about carbs, the GI and blood glucose to:
gicurlyquestions@gmail.com

Your Success Stories

‘We found the GI the most critical tool in managing our children’s diabetes.’ – Margie

I have two type 1 diabetic children, one diagnosed 12 years ago at age three and the other in 2007 at age two. Thanks to Prof Jennie Brand-Miller and colleagues, my husband and I were able to use the GI in managing my three year old’s diabetes way back 12 years ago after diagnosis (and have done so ever since, and also with my latest diagnosed child) and we found it THE most critical tool in managing our child’s diabetes. It was truly a godsend. This was despite the GI at the time not being something that was widely recognised or recommended, and in fact even frowned upon by some old-style diabetic educators who preferred the complex carbohydrate and counting method.

However, we KNEW from first-hand experience exactly how very well it worked, studied the original little handbook til we could shop without it and then we fashioned our family diet around it generally. We loved the freedom it gave us in making dietary choices, particularly for a toddler, in addition to improving our understanding of diabetes, the relation of foods to blood glucose levels and of course ultimately achieving better blood glucose levels for our child! So we just did our thing without the guidance of the medical profession until such a time as the GI was eventually given the recognition it deserved. Which as Australians, we are proud of, as we know the international recognition and acclaim this research has achieved since.'

‘Dear Professor Brand-Miller, I just want to thank you for your very sensible and helpful eating advice in [The Low GI Diet](#)’ – Frances

‘I have just finished the first 12-week weight-loss period during which I lost 10.5 kg (23 lbs). I am now no longer morbidly obese. I now intend to continue with a 3-month weight maintenance period before trying another period of weight loss. I am in my forties and have been obese for over 10 years.

Your book has really helped to re-educate me regarding my eating habits and attitude towards my health. I particularly liked the fact that whilst following the weight-loss program I did not become neurotic about what I could or could not eat, and I also felt that I was not embarking on some kind of self-punishment program. I now eat regularly and sensibly, I enjoy buying and preparing food and eating it and I enjoy a much more active life – swimming, walking and going to the gym. I do not feel as though I were on a diet that I am in a hurry to finish and return to “normal” eating habits – instead I feel like I now have a much happier and healthier relationship towards food and my body. I really am so happy that I picked up your book.’

Inspire Others - Share Your GI Story

If healthy eating the GI way has made a difference to your life by helping you achieve blood glucose control or lose weight, please share your success with readers of GI News. It's the real life success stories that give people the motivation they need to get started and help them appreciate that they are not alone. Just click anywhere in this text box to share your story. As a thank you, we will send you a copy of "Shopper's Guide to GI Values 2009" if your story is published in GI News

GI Symbol News with Alan Barclay

LoGicane™: your questions answered

The launch of the low GI sweetener LoGicane™ in Australia in March sparked immense interest from around the globe. A growing disenchantment with non-nutritive tabletop sweeteners like aspartame and sucralose, and the hypothesis that high fructose corn syrups are fuelling the obesity epidemic in the USA, are a couple of likely reasons for the high level of interest.

How does LoGicane™ compare with other tabletop sweeteners?

It is important to realise that it is a nutritive sweetener – it provides energy (kilojoules) and carbohydrate, as well as small amounts of minerals like potassium, calcium and magnesium, and other nutritive substances like polyphenols and antioxidants. Other nutritive sweeteners like honey and raw sugar also provide similar amounts of energy, carbohydrate and some of these other nutrients, but on average, they have a higher GI value. All other nutritive tabletop sweeteners are so highly refined that they only provide energy and carbohydrate, and with the notable exception of fructose, have a higher GI. Therefore, LoGicane™ is an overall better choice of nutritive tabletop sweetener.

However, like all nutritive sweeteners, it may contribute to weight gain, and will elevate blood glucose levels in people with diabetes, if consumed in excessive amounts. It is worth noting that total sugar consumption per head of population has been decreasing in Australia over the last 35 years, while rates of overweight/obesity and type 2 diabetes have approximately trebled over the same period.



How does LoGicane™ compare with non-nutritive table top sweeteners like aspartame and sucralose?

As their name suggests, non-nutritive sweeteners provide essentially no nutrients (energy, carbohydrate, minerals, etc...) when consumed as directed. As such, they will not affect blood glucose levels, and in theory may aid in weight management. However, perhaps surprisingly, there is actually little evidence that they help with weight management for reasons that are as yet unclear. It is worth noting that aspartame and sucralose were introduced into the food supply in the early 1980's and 90's respectively, again coinciding with the global obesity and diabetes epidemic.

Is Logicane™ low GI due to added chemicals or sweeteners?

Logicane™ is low GI due to the polyphenols that occur naturally in molasses. The important GI lowering polyphenols in molasses are recovered using a membrane filtration process and this material is reincorporated back into washed raw sugar crystals to ensure the clinically "right" amount is captured in the final sugar product to ensure it is low GI.

Where can you buy it?

While LoGicane™ is currently only available in Australia and New Zealand supermarkets, Horizon Science are negotiating with major North American and European manufacturers, and expect the product will be available in these territories in the near future. For more information email: alan@gisymbol.com

Contact

Dr Alan W Barclay, PhD
CSO, Glycemic Index Ltd
Phone: +61 2 9785 1037
Mob: +61 (0)416 111 046
Fax: +61 2 9785 1037
Email: <mailto:alan@gisymbol.com>
Email: alan@gisymbol.com
Website: www.gisymbol.com.au

New GI Values with Fiona Atkinson

Lychees

Fresh lychees (B3 variety, Australian grown) GI 57

Serve size 8 lychees (about 100 g or 3 1/2 oz); Available carbs per serve 16 g; GL = 9

Nektar Sweet

Nektar Sweet™ GI 34

Serve size (1 teaspoon) 4 g; Available carbs per serve 4 g; GL = 1.4

This nutritive sweetener is a white powder-like sweetener. The ingredients are fructose, lactose, honey, maltodextrin and natural flavours. The product packaging says 'replace table sugar about 1:1, adjust to taste'.