

GI News—April 2011



- GL outperforms carb content in predicting BGLs and insulin levels
- The scoop on the FODMAP diet for IBS
- Kellogg's join the GI Symbol program
- Why traffic light labels miss the wood for the trees
- Do you need to eat every few hours to lose weight?

Food labels are in the news. The focus is giving shoppers clear and simple icons on the front of the pack to help make healthier choices easier. In the US, thanks to First Lady Michelle Obama's urging, a voluntary 'Nutrition Keys' system covering calories, saturated fat, sodium and sugars is being introduced. Here in Australia, a government panel appointed to conduct an independent review of food labelling recommends switching to a traffic light system highlighting fat, salt and sugars. We believe that if governments are serious about dealing with obesity and type 2 diabetes, any changes must move beyond the current front-of-pack focus on sugars and include the glycemic impact of the product's available carbohydrates (sugars and starch).

Good eating, good health and good reading.

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Food for Thought

Why count the foods you love

In business there's a saying: 'you can't manage what you don't measure.' Dietitian Dr Penny Small has come up with a really simple way to help us apply this golden rule and measure and manage our total food intake and energy expenditure. 'By keeping track of the food you eat even for a few days, you learn where the big energy-in amounts come from and you get a sense of what's working well and what's not,' she says.

The following edited extract from The Food Lover's Diet (Allen & Unwin) is reprinted with permission.

'As a dietitian I have learnt that if we take a holistic approach to what we eat, we can manage food and our weight without depriving ourselves of the things we love. It's about

learning to love food and live life in a new way – a way that’s good for your body and good for your soul.’

Seven things I wish my mother had told me:

- For a healthy weight, kilojoules (calories) in and kilojoules out is what matters.
- Fat has double the kilojoules of protein or carbohydrate. Water has none. So foods high in fat tend to have more kilojoules and foods high in water tend to have less. This means that energy is the ultimate policeman of fat and sugar content.
- Food is to be enjoyed – all food – there’s no single food that one needs to feel guilty about eating. What matters is how much you eat and how often. There are many ways to achieve balance, and how you do it is your own choice.
- Life skills like time management and personal development have a part to play in all aspects of our lives including our health. Good planning and making good choices help you buy and eat food in a way that enables you to manage your weight.
- Less is more. Small mouthfuls of food eaten slowly taste the best and give the greatest pleasure.
- Food is one way to cope with the ups and downs of life, but it’s not the best way. Seeking out good emotional management techniques that don’t include food is a better option.
- A bad habit is just a behavior or way of acting that has become routine or ingrained. Learning a new behavior is like learning any new skill. Every time you practise it, it becomes more familiar.

To achieve a happy weight – a balance between eating wisely and not going without, and between self acceptance and an eating pattern you can maintain, not just for a week, but for a lifetime, you need to discover new ways of supporting yourself. Here are a few tricks to help you on your healthy weight journey.

Trick 1: It’s about making small changes.

Trick 2: It’s how much you eat that matters. Portion size and moderation matter.

Trick 3: It’s how often you eat. You can eat the foods you like (including that square of chocolate) because it’s how much and how often you eat them that matters.

Trick 4: Swap this for that. Substituting better choices for the foods you eat most often, such as choosing lean meats and low-fat milks, and yoghurts will help you achieve your weight and shape goals. And making clever swaps with your everyday foods can leave a little room for the treats you love.

Dr Penny Small (BSc. MNutrDiet. GCertPop Health. PhD. APD) is Head of Corporate Nutrition Nestlé Oceania. The book was created by Penny and her team of dietitians with

Nestlé donating 50% of royalties to Royal Far West (www.royalfarwest.org.au), a charity providing a range of essential health care services to meet the needs of country children and their families in NSW, Australia.

News Briefs

GI Labs Service Mark

GI Labs in Toronto has introduced the 'GI Labs Service Mark' for use by GI Labs clients. The mark identifies products that have been in clinical nutrition trials at GI Labs, clearly demonstrating that such products have been independently tested. To find out more about the service mark and its applications contact:

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Nutrition Keys – US front-of-pack labelling

US food and beverage manufacturers and retailers at the urging of First Lady Michelle Obama have joined forces to develop and implement a voluntary 'Nutrition Keys' front-of-pack labelling system. The four basic icons were chosen as they represent key nutrients most of us need to limit in our diets – calories, saturated fat, sodium and sugars (but they haven't separated added sugars from natural ones). The saturated fat and sodium icons include %DV.

It's a step in a helpful direction. What's a bit mystifying to us here at *GI News* is that with the very real concern about diabetes numbers in the US, the key numbers missing on this front-of-pack system are the key numbers people with diabetes actually need to know if they are going to make healthy food choices to manage their BGLs and reduce the risk of complications – total available carbohydrate (sugars and starch) plus the GI value for carb-rich foods like breads and breakfast cereals.

A new study published in *Nutrition Reviews*

(<http://onlinelibrary.wiley.com/doi/10.1111/j.1753-4887.2011.00382.x/abstract>)

concludes that 'The combined collective data from long-term epidemiologic studies and randomized trials using metabolic indicators of glucose metabolism as endpoints provide strong evidence that optimizing dietary carbohydrates (i.e. choosing the low GI ones) will reduce the risk of type 2 diabetes, heart disease, age-related macular degeneration, and, probably, cataract.'

So if anyone knows Michelle Obama, can you ask her to do a bit more urging ...

Traffic light labelling

The panel conducting an independent review of food labelling has presented its *Labelling Logic*

(www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/labelling-logic) report to the Australian parliament. It has come up with 61 recommendations, four (numbers 51–54) relate to traffic light labels for food packaging and menus in chain food service outlets.

Here at *GI News* we understand why many consumers find the idea of ‘traffic lights’ on the front of packaged food so appealing. They stand out. They are easy to read. A real no-brainer. Buy Green not Red. Or be an Amber gambler ...

However, there’s a very big question on whether they actually work better than the current %DI front-of-pack labelling scheme (already on some 2000 foods), which is essentially the same as the new US 'Nutrition Keys'. The first Australian study published in the *Australian and New Zealand Journal of Public Health*

(<http://onlinelibrary.wiley.com/doi/10.1111/j.1753-6405.2011.00684.x/abstract>) to

measure how consumers respond to the traffic light labels found traffic lights make no difference to decisions on purchasing food. Research from the UK

(www.eufic.org/upl/1/default/doc/Nutrition%20Knowledge,%20Grunert%20et%20al%202010,%20in%20Appetite.pdf) has also shown that they are no better understood than GDAs (like Australia’s %DI or the US %DV).

There’s no labelling silver bullet that’s going to solve obesity and other related health problems and save governments billions in health care costs. And it certainly is unlikely to be traffic light labelling because although it gives us some important information about fat, sugar and salt, it doesn’t give us some key stuff (that’s already on %DI labels) that can make a real difference.

- We all need to know about energy – calories/kilojoules
- People with diabetes or at risk of diabetes want to know total available carbs – sugars *and* starch.

We all want life and the daily choices we make in the supermarket to be simple. But, that’s not going to happen – certainly not in the supermarket. Life isn’t simple, nor is the best nutrition science. Things change. New discoveries are made and sometimes they tell us that yesterday’s villain may not be quite such a bad guy after all. The low fat story is a good example of this. We now know it’s not how much fat you eat, it’s the type of fat that counts. ‘It’s fair to say many people are scared of fat these days and try to avoid it,’ says dietitian

Nicole Senior.

‘However, failure to eat the right kinds of fat is a primary reason why our national average cholesterol level has not improved in over 25 years. This is due in no small part to well-intentioned but misleading public health education aimed to reduce the risk of heart disease. Health authorities didn’t think regular folks would understand the difference between saturated fat and unsaturated fat, so they went for the simple message to ‘eat less fat’. As a consequence, food industry went into overdrive in the quest to drive down fat levels, and low fat claims became the most sought by shoppers in the supermarket. Rather than being a good thing for our growing waistlines, eating low fat foods didn’t make any difference and we just grew fatter. Some healthy fat is good, but we’ve thrown the baby out with the bath water. While dietary guidelines around the world have now changed their emphasis towards reducing saturated fat and not total fat, the damage has been done.

It should be said there is a place for low fat foods – in the dairy aisle. Because dairy foods are a major source of saturated fat, lower fat versions of these nutrient-rich foods are a change for the better and recommended for everyone, including children from 2 years of age. Lower fat dairy foods such as milk and yoghurt are also satisfying and low GI, making them a heart and waistline friendly food.

The traffic light system aims to make something very complex into something very simple, and we lose a lot in the translation.

- What about highly nutritious foods rich in good fats from nuts, avocado, seeds and olive oil. Will these attract a big fat red spot despite their obvious health benefits?
- What about puffed up, high GI, alternatively sweetened refined cereal products. Will these get the green light when they are a nutritionally poor choice?

Reducing the complexity of food down into three adverse nutrients is missing the wood for the trees, and without solid evidence that it will make any difference to public health or your health.’

Eat to beat constipation with low GI prunes

Grandma was right. A daily dose of prunes (dried plums) will do it. The findings of a randomised, crossover clinical trial published in *Alimentary Pharmacology & Therapeutics* (www.ncbi.nlm.nih.gov/pubmed/21323688) found prunes more effective than psyllium in 40 volunteers with chronic constipation. Fifty grams of prunes, providing a daily fibre dose of 6g, outperformed an equal fibre dose from psyllium for constipation relief over three weeks according to the study’s findings.

‘The fibre in prunes helps but there’s something else as well,’ says dietitian Catherine Saxelby. ‘Prunes have long had a reputation as a gentle laxative and digestive aid. Nutritionists believe it’s due to a combination of the fibre plus two unusual prune components – high levels of sorbitol (a natural sweetener found also in pears and apples) and polyphenols such as chlorogenic and neochlorogenic acid. All three have an ability to stimulate intestinal movement.

A serve of 5 or 6 unpitted prunes (around 50 g or nearly 2 oz) makes a quick healthy nibble. They have virtually no fat and 22 g carbohydrate and a low GI of 40 so they’ll help you manage your blood glucose levels. You also get a healthy dose of beta-carotene, which is converted to vitamin A in the body, plus a number of minerals notably potassium and boron, plus a little iron. Prunes score high for antioxidants too – at least equal to that of well known antioxidant-rich blueberries.’

[Get the Scoop with Emma Stirling](#)

The Low FODMAP diet – the scoop on advances in treating irritable bowel syndrome

It wasn’t that long ago that sufferers of a regular ‘upset tummy’ or ‘grinding guts’ were told simply to learn to live with it or ‘stress, less’. Today however, irritable bowel syndrome (IBS) is a recognised condition with some highly technical diagnostic and therapeutic approaches including the Low FODMAP diet.

It’s estimated that as many as one in seven adults have IBS with common symptoms including abdominal bloating, wind, abdominal pain and changes in bowel habits such as diarrhoea, constipation or a combination of both. Symptoms of IBS can be caused by physical problems like altered gastric motility or the muscle contractions that occur in your gut. However, there are now clearly identified dietary triggers in many, but not all people with IBS.

Food culprits Dietary triggers that may induce symptoms of IBS can include naturally occurring food chemicals (eg. salicylates, amines, glutamates), gluten, caffeine, excess fat and excess alcohol. Attention has recently been drawn to new scientific research showing that poorly absorbed, small, carbohydrate molecules (sugars) in foods can also be a major cause of symptoms. These are given the technical term of FODMAPs, which stands for Fermentable Oligo-saccharides, Di-saccharides, Mono-saccharides And Polyols. So you can see why an acronym was needed.

FODMAPS can trigger a number of unwanted symptoms in people with IBS. Firstly they

can increase the amount of water in the bowel and lead to diarrhoea. They also can be poorly absorbed in the small intestine and then fermented by bacteria in the large bowel, which releases gas. These gases can build up in people with IBS and cause bloating, abdominal pain, wind and changes to bowel habits.

Testing times The good news is that with all this new dietary research, comes a whole new set of diagnostic tests including breath testing. Like a glucose tolerance test, you swallow a measured amount of sugars. But instead of blood samples, you breathe into a breathalyser like bag after an assigned time. The gases produced from malabsorption of FODMAPS are absorbed across the intestine, carried through the bloodstream to the lungs and can be measured in exhaled breath. You can read more about breath testing at www.breathtest.com.au/about.

Where to find FODMAPS:

- Excess fructose – fruits, honey, juices
- Lactose – milk and milk products
- Sugar polyols – such as sorbitol and mannitol
- Fructans – found in foods like wheat, rye, onions and garlic
- Galacto-oligosaccharides – found in foods like legumes

Wait just a minute though. Before you go skipping off to cut down on fruit or dairy, you need to see an expert. And if you are on the FODMAP diet it's even more important to make sure the starchy foods you eat are low GI ones like grainy breads, muesli and low GI starchy veg like carrots, butternut pumpkin (winter squash), parsnips and Carisma potatoes.

Where to get help? It's important to talk to your doctor if you experience gastrointestinal symptoms and not self-diagnose. There are many other gastrointestinal conditions and diseases including coeliac disease, inflammatory bowel disease and bowel cancer that need proper investigation.

It's essential to see an Accredited Practising or Registered Dietitian in order to correctly follow the low FODMAP diet and still achieve nutrition balance for well-being, especially if you have other considerations like type 2 diabetes. In Australia, many dietitians work with a handy booklet developed by the expert team, at Monash University (www.med.monash.edu.au/ehcs). *The Low FODMAP Diet – reducing poorly absorbed sugars to control gastrointestinal symptoms* is available to order using this form (www.med.monash.edu.au/ehcs/research/docs/booklet-final-order-form.pdf). And we've got a low FODMAP recipe from the book this month, suitable for all to enjoy, even if you

swear you're not irritable.

Emma Stirling is an Accredited Practising Dietitian and health writer with over ten years experience writing for major publications. She is editor of The Scoop on Nutrition (www.scoopnutrition.com) – a blog by expert dietitians. Check it out for hot news bites.

In the GI News Kitchen

Frittata

This tasty frittata made just with eggs (no milk) is packed with vegetables to help you get those five serves a day if you are on a low FODMAP diet. Reproduced from *The Low FODMAP Diet* with permission. Serves 6.

1 carrot, peeled and cut into ½cm (1/4in) rounds

1 red capsicum, sliced into strips

1 small eggplant, sliced ½cm (1/4in) thick

1 zucchini cut into 1cm (½in) slices

6 cherry tomatoes cut in halves

½ cup grated parmesan

8 whole eggs, whisked

½ tsp polyunsaturated margarine

salt and pepper to taste

1 tsp flat leaf parsley, chopped

4 leaves basil, shredded

Preheat oven to 160°C/320°F. Steam or blanch the carrots. Pan-fry the capsicum, eggplant and zucchini in a small non-stick pan. Whisk eggs in a bowl, add all vegetables and parmesan and seasoning to taste.

Place ½ tsp of margarine in an oven-safe pan and heat over low heat. When margarine is melted, add egg mixture. Sprinkle with parsley and basil over low heat until bubbles form on the top. Place in pre-heated oven on middle shelf and cook until set (20 minutes). Allow to cool a little before turning out onto chopping board. Slice and serve.

Per serving

Energy: 630 kJ/ 150 cal; Protein 12 g; Fat 9.5 g (includes 3.5 g saturated fat and 260 mg cholesterol); Available carbs 3 g; Fibre 2 g

American dietitian and author of *Good Carbs, Bad Carbs*, **Johanna Burani**, shares favourite recipes with a low or moderate GI from her Italian kitchen. For more

information, check out Johanna's website (www.eatgoodcarbs.com). The photographs are by Sergio Burani. His food, travel and wine photography website is photosbysergio.com.

Grandma's stuffed artichokes

Artichokes, especially from Sicily, start appearing in green grocer markets all over Italy by early spring. Their hearty green leaves and full bodied shapes invite shoppers to bring them home for the day's lunch or dinner menu. They can be fried, boiled, cut up into a pasta sauce or added to a fritatta. My Sicilian grandmother always lightly stuffed them. Artichoke stuffing could include cold cuts, fresh or aged cheese, anchovies and eggs. My grandmother's recipe was very plain and simple – and scrumptious. Here it is. Servings: 4 (as side dish)

NOTE: There is little stuffing in this recipe because it is prepared as a side vegetable dish. If used as an entree, use multiples of the stuffing ingredients and oil.

- 1 lemon
- 2 jumbo artichokes (about 450g/1lb each)
- 1/4 cup breadcrumbs
- 4 tsp pecorino romano cheese
- 1 large clove garlic, minced
- 2 large sprigs fresh parsley, finely chopped (1 tbs)
- 2 large sprigs fresh mint, finely chopped (1 tbs)
- 2 tablespoons extra virgin olive oil

Squeeze juice from the lemon into a large bowl of water. Set aside.

Prepare the artichokes as follows. Cut off the stalks very close to the base so that they can easily stand upright. Discard outer tough leaves near the base. Using a serrated knife, remove the top 1/3 of each artichoke and discard. Turn the artichokes upside down and apply some pressure to open up the leaves, especially at the center. Remove the entire choke from the center. (A serrated grapefruit teaspoon works wonders here.) Place artichokes in acidulated water and set aside.

Add the next five ingredients (breadcrumbs through mint) to a small bowl and mix thoroughly.

Using a small teaspoon (demitasse, if you have one), gently stuff the layers of leaves with the stuffing, making sure to divide it equally between the two artichokes.

Place the artichokes in a small pan (for these two jumbos, I used a bread loaf pan), drizzle the oil over the tops, loosely cover with aluminum, and simmer for 50–60 minutes.

Cooking time will depend on the size. Serve hot or lukewarm.

Per serving

Energy: 630 kJ/ 150 cal; Protein 4g; Fat 9g (includes 1g saturated fat and less than 1mg cholesterol); Available carbohydrate 10g; Fibre 5g

Cut back on the food bills and enjoy fresh-tasting, easily prepared, seasonal, satisfying and delicious low or moderate GI meals that don't compromise on quality and flavour one little bit with **Money Saving Meals author Diane Temple**. For more recipes check out the Money Saving Meals website (www.moneysavingmeals.com.au).

Beef and prune (dried plum) tagine

If you are going to the effort of cooking a casserole, make enough for two meals. Enjoy half and freeze the rest. Serve with couscous or rice. Second time around, freshen it up with more parsley and perhaps serve with something different. Overseas readers, remember, the Australian tablespoon = 4 teaspoons. Makes 8 servings

2 tbs olive oil

2 large-ish onions, chopped

900g (2lb) trimmed gravy beef, chopped into 3–4cm (1–1½in) cubes

4 garlic cloves, crushed

1 tbs ground cumin

1 tbs ground coriander

2 tsp sweet paprika

1 tsp ground cinnamon

¼ teaspoon chilli flakes, or more to taste

400g (14oz) can diced tomatoes

2 cups chicken stock

450 g (1lb) sweet potato, peeled, chopped into 2 cm chunks

¾ cup pitted prunes (dried plums), halved

150g (5oz) green beans, trimmed, sliced into 3

400g (14oz) can chick peas, drained and rinsed

80g (3oz) baby spinach leaves

3 tbs chopped parsley

Heat 1 tablespoon of the oil in a large frying pan and cook onion for about 4–5 minutes over a medium-low heat until softening. Add remaining oil and brown the beef on high, stirring occasionally. Reduce heat, add the garlic and all the spices and stir for a few seconds to coat the meat.

Add tomatoes and stock, stir, then bring to the boil, cover and simmer for 1½ hours. Add sweet potato and prunes and simmer for another 30 minutes, uncovered, stirring occasionally. Add chick peas and beans, cover and cook for another 5 minutes. Add spinach

and parsley and stir until spinach has just wilted..

Per serve

Energy: 1660kJ/ 395cal; Protein 29g; Fat 18g (includes 4g saturated fat and 38mg cholesterol); Available carbs 28g; Fibre 8g

[Busting Food Myths with Nicole Senior](#)

Myth: You need to eat every few hours to lose weight

Fact: To lose weight you need to eat less over the day and constant snacking may impede your efforts

I've read many websites, books and diet programs that say you must eat every few hours or the body will go into 'starvation mode' which slows the metabolism and encourages weight regain. This is incorrect. I'm all for eating regular balanced meals, but insisting everyone snack every few hours is simply not necessary and may actually encourage overeating and weight gain.

When it comes to weight loss, the total amount of food you eat is what matters not how often you eat. I'm not recommending it, but you could eat one large meal a day and still lose weight if the energy contained in the meal was less than your needs. 'Starvation mode' is a non-scientific term but perhaps describes ketosis: the state of burning fat instead of carbohydrate (glucose). Rather than something to be avoided, this is the end goal of reducing body fat. Very Low Calorie Diets (VLCDs) invoke ketosis quickly and that's why they work. These have been used by health professionals for very large patients when rapid weight loss is needed for health reasons. Every successful weight loss diet must have a little 'starvation mode' for it to work.

Your metabolism does not become permanently slowed by eating less food, or eating less often. Metabolic derangement is not why many people regain weight after dieting, but rather they slide back into old habits and fail to eat less to suit their smaller body weight. Your metabolic rate goes up and down relative to body size, lean muscle mass, energy (food) intake and exercise. It's an unfortunate fact that once you've lost weight on a diet, you need to eat less than you did before; you need a new normal to maintain the loss. You can minimise this effect by exercising to maintain or increase your muscle mass because muscle is 'hungrier' than fat and demands more metabolic energy.

Individuals vary in their need to snack, and this can change over a lifetime. I remember as a young adult experiencing quite debilitating hunger (I called it 'cotton wool head') if I didn't eat between meals, yet now I find I don't need to. If I feel peckish between meals the

reason is often boredom or because food is there, not because I'm actually hungry. Does this sound familiar?

The practical downside of the 'you must snack' advice is that it's hard to find suitable snacks. Easily available snacks are usually nutrient-poor and oversized. In this day and age our demand for convenience means it is too easy to snack unwisely.

To lose weight you need to eat less and move more. If you perform better snacking between meals, make sure they are nutritious foods and fit within your daily kilojoule budget – you may need to reduce the size of your meals to achieve this. If you don't need to snack between meals, don't.

If you'd like more common sense nutrition advice, check out Nicole's website here.

[GI Symbol News with Dr Alan Barclay](#)

Kick start your day with a healthy low GI breakfast

Breakfast does just that. As the first meal of the day, it breaks the overnight fast, jump-starts your metabolism and generally gets you going. After an overnight fast your body's energy stores are starting to run low, so a good breakfast replenishes your vital reserves of carbohydrate, fat and protein, along with vitamins and minerals, to energise your day.

There's a large body of research that has proven that breakfast eaters perform better than those who regularly skip breakfast. For adults, this translates into improvements in the work environment. With children and teens, it's been well established that breakfast eaters show improved cognitive skills in the classroom compared with skippers.

Skipping breakfast on the other hand, by both children and adults, is associated with a significant increase in the risk of becoming overweight, being obese and developing type 2 diabetes.

Other breakfast benefits include appetite regulation, better blood glucose, cholesterol and free fatty acid levels, insulin sensitivity. Eating breakfast is also associated with healthier overall dietary patterns – breakfast eaters tend to have reduced intakes of fat and cholesterol, and higher dietary fibre intakes compared with skippers.

Making that healthy breakfast low GI delivers additional benefits like decreased feelings of hunger (www.ncbi.nlm.nih.gov/pubmed/14595085) and subsequently lower kilojoule (calorie) consumption at lunch time (www.ncbi.nlm.nih.gov/pubmed/21070678).

8 easy, healthy low GI breakfasts

In the following list I've included products that carry the GI Symbol so you know that they are healthy low GI choices. I appreciate that these aren't going to be available to all our readers around the globe. Check the GI database (www.glycemicindex.com) or The Shopper's Guide for your local low GI options.

- Natural muesli (e.g., Morning Sun) with reduced or low fat milk (e.g., Dairy Farmers Skim)
- Wholegrain, low GI breakfast cereals (e.g., Kellogg's Sustain or Guardian) with reduced or low fat milk and fruit
- Fruit bread (e.g., Burgen Fruit and Muesli) with a teaspoon of quality (low saturated and trans fat) margarine and a little of your favourite spread (jam/marmalade)
- Other quality wholegrain and low GI breads (e.g. Tip Top 9 Grain) with a teaspoon of margarine and your favourite spread (jam/marmalade/vegemite/peanut butter/etc...)
- Quality wholegrain and low GI bread with baked beans
- Quality wholegrain and low GI bread with margarine and a poached or non-stick pan fried egg
- Fresh, canned or dried fruit
- Plain or diet yoghurt with fruit

Kellogg's join the GI Symbol Program

We are delighted that one of the world's leading breakfast cereal producers, has joined the GI Symbol Program. The first products GI tested according to the International Standard (www.iso.org/iso/catalogue_detail.htm?csnumber=43633) and meeting our Program's stringent nutrient criteria (www.gisymbol.com.au/GINutrientCriteria2008.pdf) are Kellogg's Guardian (GI=34) and Sustain (GI=55).

The GI Foundation will be working with Kellogg's to develop a more comprehensive range of healthy low GI breakfast cereals.



Help us get the GI Symbol on more foods

To help bring more healthy low GI foods to your local supermarket:

- Buy products that carry the Certified Low GI symbol. They are delicious and healthy, and their sales support us.
- Write a thank you email to the manufacturers' of healthy low GI foods customer care departments to help ensure that they continue to bring healthy products to market.
- Call or email manufacturers encouraging them to join the GI Symbol Program.

For more information about the GI Symbol Program

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GI Update

Professor Jennie Brand-Miller answers your questions

Does the carbohydrate content on a food's nutrition label have any relationship to its blood glucose-raising capacity?

Yes, but only to some extent. We can make a few generalisations. If a food has less than 5 grams of carbohydrate per serving, then it won't have a marked effect on your blood glucose levels. If it has 10 or more grams it's likely to have a substantial effect, **depending on the food's GI value**. So all the label can tell you is whether the food is high or low in carbohydrate. If the food is high in carbohydrate, then its GI is much more relevant. A food that's both high in carbohydrate and has a high GI could be contributing to high blood glucose readings.

Studies tell us that diets based on frequent consumption of high GI value carbohydrates will put us at greater risk of developing type 2 diabetes, heart disease and some forms of cancer. It's not the amount of carbohydrate that matters, it's the source. High carbohydrate diets from high GI sources spell trouble, especially for people with insulin resistance, which is one of the underlying causes of type 2 diabetes. That's why we believe that any changes to front-of-pack food labelling schemes must move beyond the current focus on

added sugars and include the glycemic impact of the food's carbohydrates if our government health departments are really concerned about reducing the risk of type 2 diabetes.

In our most recent paper published in the *American Journal of Clinical Nutrition* (www.ajcn.org/content/early/2011/02/25/ajcn.110.005033.abstract), we showed that the glycemic load of food may be more effective than the available carbohydrate content in calibrating how much insulin patients with type 1 diabetes should take before meals. In two studies, glycemic load repeatedly outperformed carb content in predicting the increase in blood glucose and insulin levels up to two hours after eating in 10 healthy young people who consumed 121 types of single foods (study 1) and 13 mixed meals (study 2).