## GI News—July 2007


How do you follow a low GI diet if the foods in your supermarket haven't been GI tested? Johanna Burani shares her low GI eating tips that will help you lose weight, and reduce your risk of diabetes and heart disease without worrying about numbers. We are often asked why websites like Montignac's have different GI numbers from the database at www.glycemicindex.com. We followed up a question from a reader about the GI of beer and did some sleuthing. Read all about it in New GI Values. There are **two special offers this month**. First, copies of the 'New Glucose Revolution' DVD are available for GI News readers at a special price. And if you live in the US or Canada, there's a giveaway of 6 copies of The New Glucose Revolution for Diabetes and also 6 copies of *The Diabetes and Pre-diabetes Handbook* for Australian residents.

**SPAM filtering - A special note to our subscribers**
If you are a subscriber, help us be sure our email newsletter isn't filtered as spam. Add "gifeedback@gmail.com" to your address book to whitelist us with your filter, helping future issues get to your inbox.

Enjoy July GI News.

"Breakfast cereals are supposed to be good for you, and relatively unprocessed ones still are, but most are now so thoroughly processed and sugared and filled with additives that they may as well be cookies."

— Prof Marion Nestle, "What to Eat" (North Point Press, 2006)

**GI News Editor**: Philippa Sandall
**Web Design and Management**: Scott Dickinson, PhD

Posted by GI Group at 8:14 AM

## Food for Thought

**What's so good about the glycemic index?**
'It works in the trenches for weight loss and blood glucose management as well as improving

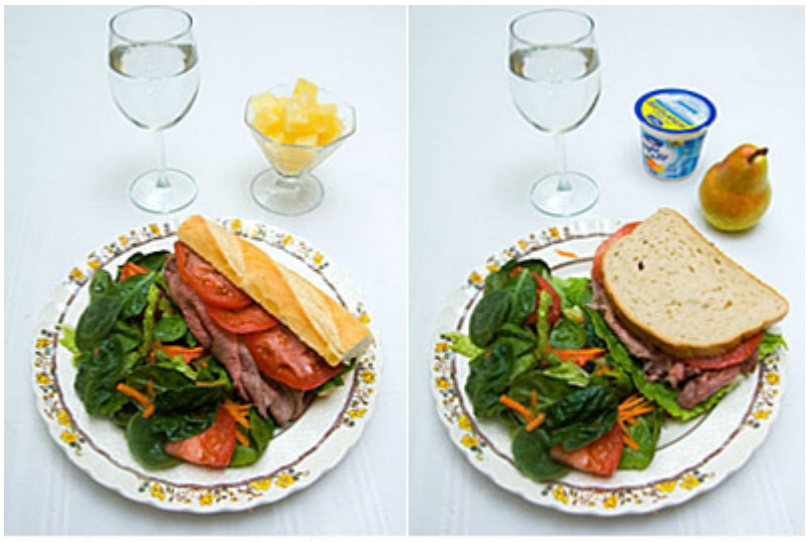
your cholesterol,' says Johanna Burani MS, RD, CDE. And she knows. Readers of GI News may recall the inspiring success stories of two of Johanna's clients – Amy (September 2006 *GI News*) and Kerry (May 2007 *GI News*).

So how can you achieve the benefits of low GI eating as Amy and Kerry did and lose weight, and reduce your risk of diabetes and heart disease if the foods on your supermarket shelves haven't been GI tested and you don't know which brands are high GI and which are low. Here's how you do it says Johanna. No need to worry about numbers, just follow these six basic steps and keep those portions moderate.

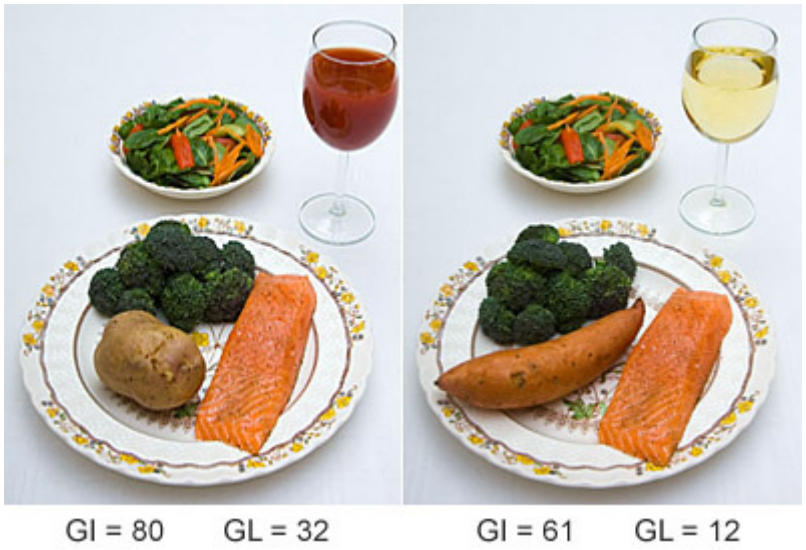
1. Balance calories in with calories out and eat a balanced diet with a variety of nutrient dense foods and beverages as the 2005 Food Guidelines suggest.
2. Eat high fibre unprocessed breakfast cereals (oats, bran, barley) OR add berries, nuts, flaxseed or cinnamon to a high GI refined cereal.


GI = 60 GL = 48 GI = 42 GL = 31

3. Choose dense whole kernel grain (that means you can see LOTS of grainy bits in there) or sourdough breads and crackers OR add a heart healthy protein and/or condiment to high GI breads and crackers.




4. Include 5–9 servings of fruits and vegetables everyday – no ifs or buts. Mom was right.
5. Replace white potatoes with yams or sweet potatoes OR try canned new potatoes or just eat much smaller portions of high GI potatoes.




6. Eat less refined sugars and convenience foods (soda, sweets, desserts)
   OR combine nuts, fruit, reduced-fat yoghurt or ice-cream with commercial sweets (desserts) – but watch portion sizes.

And get moving. No ifs or buts here either. Increase your incidental activity as well as the amount of planned exercise you do.

*Johanna Burani is a dietitian and author of* Good Carbs, Bad Carbs. *This is an edited version of her presentation to the 22nd Annual Southern Regional Conference of the American Diabetes*

*Association held in Florida in May 2007. Contact details: Johanna Burani, MS, RD, CDE, Nutrition Works, Mendham, New Jersey,* jburani@gmail.com

**DVD Trailer: The New Glucose Revolution – A simple guide to low GI eating**
Based on the book of the same name, you'll discover how you can achieve weight loss, blood glucose control and lifelong health with the GI. Narrated by former Australian Olympic Swimmer Lisa Forrest, the DVD features interviews with Prof. Jennie Brand-Miller, Kaye Foster-Powell and Prof. Stephen Colagiuri.

Order the DVD HERE.

Posted by GI Group at 8:13 AM

## GI News Podcast

**GI News Podcast: Diabetes and Pre-Diabetes**
In the fifth of the New Glucose Revolution podcasts, Prof. Jennie Brand-Miller talks about diabetes, the risks associated with pre-diabetes and how the GI can help turn back the clock and prevent pre-diabetes turning into diabetes.

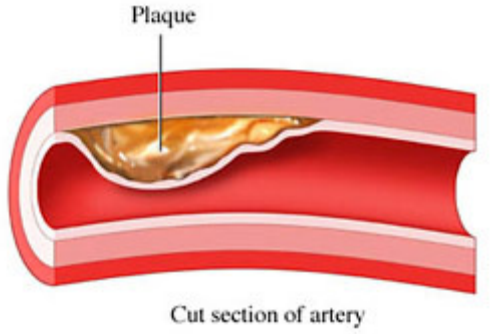
Play the Podcast above or download here PODCAST

Posted by GI Group at 8:12 AM

## GI News Briefs

**When exercising, put the time in**
'If you want to say goodbye to cholesterol, you've got to get active,' says Nicole Senior in Eat to Beat Cholesterol. 'Being active can decrease bad (LDL) cholesterol levels, increase good (HDL) cholesterol levels, improve blood flow and increase your heart's ability to do its job – pumping blood around your body.' In a new study published in the May 28 issue of *Archives of Internal Medicine*, Dr Satoru Kodama and colleagues from Ochanomizu University in Japan showed that with regular aerobic exercise, it's duration per session that counts and is a significant factor in predicting a modest increase in high-density lipoprotein (HDL) cholesterol level. When people

exercised between 23 and 74 minutes per session, each 10-minute increase in duration was associated with a 1.4 mg/dL increase in HDL cholesterol. Neither frequency nor intensity correlated well with an increase in HDL cholesterol according to the researchers.
– *Archives of Internal Medicine*. 2007;167:999-1008




**The gentle benefits of tai chi**
If you don't want to pound the pavements, hit the treadmill or blaze around the bike trail, try the slow rhythmic reaching, deliberate stretching and waist turning moves of tai chi or tai chi chuan as it's officially called. This traditional Chinese martial art that's classified as 'moderate exercise' is reputed to burn more calories than surfing and nearly as many as downhill skiing. Better still it's suitable for young and old, the fit, the infirm and can even be adapted for the wheelchair bound. And if you have type 2 diabetes, it can decrease your A1C's. Shu-Hui Yek and colleagues from Taiwan writing in March 2007 *Diabetes Care* report that 32 men and women with diabetes who did three 1-hour tai chi sessions a week for 12 weeks with an expert tai chi master had statistically significant reductions in their A1C's. They also showed increases in their regulatory T cell counts.
– *Diabetes Care*, Volume 30, Number 3, March 2007

**Pick the winning pattern**
Two studies published in March highlight the importance of your whole diet if you want to reduce your risk of insulin resistance, metabolic syndrome and diabetes. Writing in the March issue of the *American Journal of Clinical Nutrition*, Ahmad Esmaillzadeh from the Isfahan University of Medical Sciences in Iran and colleagues report that a dietary pattern 'characterized

by a high consumption of fruit, vegetables, poultry and legumes is associated with reduced risk of insulin resistance and the metabolic syndrome in Tehrani female teachers.' They conclude by noting that 'in contrast a dietary pattern with high amounts of refined grains, red meat, but, processed meat and high fat dairy products and low amounts of vegetables and low fat dairy products is associated with greater risk of the metabolic syndrome.'
– *American Journal of Clinical Nutrition*. 2007;85:910-918

'Avoiding an eating pattern including meats and fatty foods and favouring a pattern high in salad and cooked vegetables could reduce the risk of developing type 2 diabetes,' said Dr Allison Hodge in an interview with Reuters Health in March. Hodge and colleagues from the University of Melbourne, Australia, examined the association between four dietary patterns and type 2 diabetes in a 4-year prospective study of 36,787 adults. During the follow-up (31,641 completed this), 365 new cases of type 2 diabetes were diagnosed.

Using a factor analysis of 124 food and beverage items, the researchers defined four eating patterns. 'Factor 1, characterized by olive oil, salad vegetables, and legumes and by avoidance of sweet bakery items, margarine, and tea, was associated with country of birth but not with diabetes. Factor 2, characterized by salad and cooked vegetables, was inversely associated with diabetes. Factor 3, characterized by meats and fatty foods, was associated with increased diabetes risk. A range of fruits loaded strongly on factor 4, which showed little association with diabetes.'

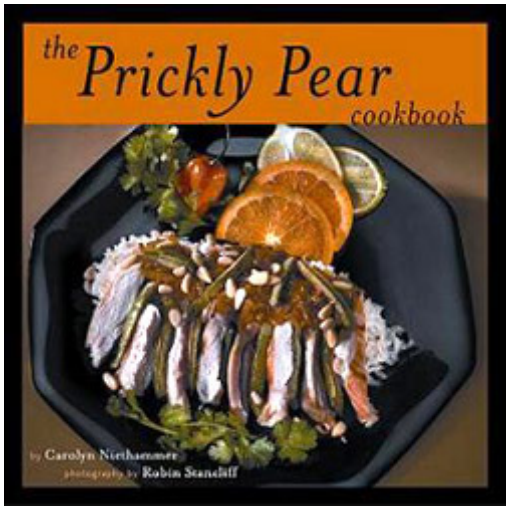
Writing in the *American Journal of Epidemiology*, the authors recommend avoiding a dietary pattern including meats and fatty foods, and sticking to one including salad and cooked vegetables, to reduce risk of diabetes. 'It may be that these eating patterns contribute to diabetes risk through an impact on body weight; overweight and obesity are still the most important risk factors for type 2 diabetes,' says Hodge.
– *American Journal of Epidemiology* 2007; 165:603-610

Posted by GI Group at 8:11 AM

## Low GI Food of the Month

**Nopales – the flesh pads of the prickly pear cactus**
Nopales (with the spines removed) are a traditional ingredient in Mexican cuisine and widely available in Mexican food markets (and some in the US). They are a good source of calcium and vitamin C and contain beta-carotene and iron. They have a small amount of carbohydrate and an amazingly low GI – 7. Sometimes called 'edible cactus' or 'cactus pear pads', nopales are usually sold 'despined' although you'd probably have to trim the eyes with a vegetable peeler to remove any remaining 'prickers'. They can be diced for salads; steamed quickly as an accompaniment (the texture should be crunchy); added to soups, salsas, stews, stir-fries, fillings for scrambled eggs or tortillas; or stirred into Mexican-style recipes with chilli, tomatoes and corn.

A new study in May 2007 *Diabetes Care* by Bacardi-Gascon and co-workers from the Universidad Autonoma de Baja California found that adding nopales to a meal reduced blood glucose spikes after eating. The researchers recruited 36 volunteers (average BMI was 25) with type 2 diabetes aged between 47 and 72 and, after an 18-hour fast, assigned them to eat one of three typical Mexican breakfasts – scrambled egg and tomato burritos, chilaquiles (cheese, beans and tomato sauce with corn tortillas), or quesadillas with avocados and pinto beans, with or without 85 grams (about 3 oz) of nopales. The blood glucose levels of the volunteers who ate the nopales with their meal were 20–48% lower (depending on the type of meal) than those volunteers who ate the test breakfasts on their own.




The following recipe is from *The Prickly Pear Cookbook* by Carolyn Niethammer, www.cniethammer.com which contains 60 recipes from chefs around the world along with full-color photos of each dish. (Rio Nuevo Press, 120 pages, fully illustrated in color, $14.95, www.rionuevo.com).

**Classic Mexican Nopalito Salad**
Makes 2 servings

**Ingredients**
2 medium nopales, cleaned
1 tablespoon vegetable oil
1/2 cup finely chopped tomatoes
2 tablespoons finely minced onion
1 teaspoon finely minced garlic
1 tablespoon chopped green chillies, canned or fresh
1 or 2 finely minced Serrano chillies
2 tablespoons chopped cilantro
1 tablespoon lime juice
2 tablespoons finely crumbled queso fresco blanco, queso fresco or feta cheese

- Preheat oven to 190ºC/375ºF.

- Cut nopales in strips about 2.5 cm/1 inch wide. Brush on both sides with vegetable oil and arrange on a cookie sheet. Roast for 10 minutes or until they have become olive green, then turn piece over to cook the other sides. When cool, slice each strip into pieces the width of a wooden matchstick and half as long. Combine in a medium bowl along with the remaining ingredients. Stir to combine.
- Refrigerate until ready to serve on lettuce leaves or as a stuffing for hot-off-the-griddle corn tortillas.

Posted by GI Group at 8:09 AM

## Low GI Recipes of the Month

July's recipes are ideas for feeding toddlers, school-age kids, teens and adults with type 1 diabetes that the whole family will tuck into happily. They are from *The Diabetes and Pre-diabetes Handbook*, just published this month in the US and Canada as *The New Glucose Revolution for Diabetes*. Home economist Diane Temple tested the recipes and Scott Dickinson did the food photography.

**Spaghetti Bolognese**
This recipe for toddlers makes a larger amount, so you can freeze the leftover portions.
Prep time: 5 minutes; Cooking time: 15 minutes; Serves: 5

1 tablespoon canola oil
½ medium onion, chopped very finely
150 g lean mince
¼ cup (60 ml/3 tablespoons) concentrated tomato paste
2 tablespoons finely grated orange-fleshed sweet potato
1/3 cup (80 ml) water
½ teaspoon oregano flakes

- In a small saucepan, heat oil. Add onion and cook on a low heat for 3–4 minutes, or until soft, stirring often. Add mince and cook until brown, stirring to break up lumps. Add tomato paste and sweet potato, and stir to combine. Add water and oregano and cook on a low heat for 10 minutes.
- When cool, divide sauce into 5 portions and freeze those you don't need now in labelled sealed containers or ziplock bags. Thaw in refrigerator when needed.
- Meanwhile, cook pasta according to directions on packet. Drain pasta and mix through sauce.

**Per serve**
1170 kJ/ 278 Cal; Protein 12 g; Fat 7 g (includes saturated fat 1 g); Carbohydrate 38 g; Fibre 3 g; Sodium 110 mg

**Vegetable Slice**
This is a terrific recipe for kids and teens to make and eat. It combines vegetables, ham and corn into one easy dish that can be eaten hot, warm or cold. It's great for picnics too. Grate the zucchini, carrots and onion in a food processor if you have one – it's much easier.
Prep time: 30 mins; Cooking time: 40 mins; Serves: 6


photo: Scott Dickinson

4 omega-3 eggs
1 × 440 g (14 oz) can sweet corn kernels, salt reduced, drained
2 slices (50 g/1¾ oz) leg ham, diced
½ cup (40 g) reduced fat grated tasty cheese
2 zucchini (courgettes), grated
2 medium carrots, grated
1 medium onion, finely chopped
½ cup (80 g) wholemeal self-raising flour

- Preheat the oven to 150ºC/300ºF.
- Lightly beat the eggs together in a large mixing bowl. Add the drained sweet corn kernels, diced ham, cheese, zucchini, carrots and onion. Add the flour. Stir thoroughly to combine.
- Spoon the mixture into a large greased lasagne dish and press down to flatten the top. Bake for 40 minutes, or until browned and set.

**Per serve**
830 kJ/ 198 Cal; Protein 12 g; Fat 7 g (includes saturated fat 3 g); Carbohydrate 19 g; Fibre 4 g; Sodium 455 mg

**Super Muesli Bar**
This recipe is perfect for teenage lunchboxes or after school. It is based on 'Dad's Super Muesli Bar' that came from one of our readers, Piers Hartley. You can buy roasted hazelnuts from the supermarket.
Prep time: 25 mins; Cooking time: 25 mins; Makes: 16 pieces/bars


photo: Scott Dickinson

1 cup (90 g/3 oz) rolled oats
½ cup (75 g/2½ oz) roasted hazelnuts, chopped
¼ cup (40 g/1½ oz) sunflower seeds
2 tablespoons (25 g/1 oz) sesame seeds
¼ cup (40 g) wholemeal self-raising flour
1 teaspoon cinnamon
½ cup (80 g/2¾ oz) dates, chopped
½ cup (75 g/2½ oz) dried apricots, chopped
40 g (1½ oz) margarine
2 tablespoons honey
1 tablespoon brown sugar
1 teaspoon vanilla essence
1 egg plus 1 egg white

- Preheat the oven to 180ºC/350ºF and grease a 19 x 29 cm (about 7 x 11 in) rectangular slice pan. Line the base and 2 long sides with baking paper and extend the paper a few centimetres above the edge of the pan to help with removing the muesli slices later.
- In a large bowl, combine oats, nuts, seeds, flour and cinnamon. Mix in the dried fruit.
- In a small saucepan, melt margarine, honey and sugar on a low heat, stirring until the ingredients are melted and combined. Remove from heat and add vanilla essence.
- In a small bowl, beat egg and egg white together.
- Add margarine mixture and eggs to the oat mixture and mix until well combined. Spoon into prepared tin and press down so it is an even level. Bake for 25 minutes, or until lightly golden. Cool in tin before cutting into slices.

**Per serve**
595 kJ/ 142 Cal; Protein 3 g; Fat 8 g (includes saturated fat 1 g); Carbohydrate 15 g; Fibre 2 g; Sodium 46 mg

**Chocolate Mousse**
Most chocolate mousse recipes are seriously high in saturated fat, so not ideal if you have diabetes and need to watch your weight. We have reduced the fat significantly in this recipe, but you'll still be able to enjoy that creamy, chocolate-in-the-mouth flavour.
Prep time: 10 mins; Cooking time: 5 mins; Chilling time: 2–3 hours; Serves: 6


photo: Scott Dickinson

30 g (1 oz) cocoa powder
2 teaspoons gelatine powder
110 g (4 oz) sugar
375 ml (1½ cups) skim evaporated milk
125 ml (1/2 cup) reduced fat cream
150 g (5½ oz) strawberries or raspberries,

- Sift the cocoa into a saucepan, then stir in the gelatine and sugar. Stir in about 60 ml (¼ cup) of the milk, stirring to form a smooth paste. Put the saucepan over medium heat and stir for about 3 minutes to dissolve the sugar and gelatine, then gradually stir in the remaining milk. Heat until the liquid is hot but not boiling, stirring occasionally.
- Remove from the heat, stir in the cream, then divide the mixture among 6 × ½ cup (125 ml) glasses or ramekins. Chill until set.
- Serve with the fresh berries.

**Per serve**
800 kJ/ 190 Cal; Protein 8 g; Fat 5 g (includes saturated fat 4 g); Carbohydrate (g) 28 g; Fibre 1 g; Sodium 90 mg

Posted by GI Group at 8:08 AM

## Your Success Stories

**'I wish more American companies would adopt your 'G' symbol' – Abby**
'When I was diagnosed with type 2 diabetes, I began researching everything I could get my

hands on, and luckily I came across your website. Living in the US, my doctor sent me to diabetes education classes, but I was appalled to discover that they are not saying a word about GI, telling me privately that there isn't enough evidence, that it is very individualised, etc. I told them the very same things could be said about the meds they are willing to talk about and that changing one's diet in this way does far less harm than ingesting medicine. Apparently, the American Diabetes Association refuses to make GI part of their education, which I consider to be tantamount to malpractice. I have sent a lot of information to the diabetes educators at the local program and told them they should start supplementing the old information given out on diet with the newest information. I myself have seen a marked drop in my blood glucose levels thanks to this information and I anticipate that if I can keep it up I can delay for a very long time my need to use medications. I wish more American companies would adopt your 'G' symbol, but perhaps Americans are just too tied into the needs of the fast food and pharmaceutical companies.'

**'The low GI diet has been a lifestyle change for us, but refreshingly simple and easy to put into practice' – Darryl**

'We read about the low GI diet in a newspaper at the turn of the year and then found our more by looking at various internet sites. It all sounded too good to be true – but on 8 January we decided to give it a try. Despite both my wife and I being pretty fit a decade ago, the advancement to early middle age had taken its toll on our weight being ably assisted by poor diet, takeaways, snacking, long working hours and lack of exercise. The scales tipped a shocking 301 pounds for me and 238 pounds for my wife and neither of us could believe how much we had let ourselves go and as a result our health was beginning to suffer - out of breath, sweating, poor sleep, acid stomach on a daily basis, aching ankles - a death sentence if we didn't take back control!

So here we are, some 16 weeks later and neither we nor our friends can believe the difference! First we have to say how easy it has been to stick to a low GI diet and how much we have begun to enjoy our food - real food without all the stodge! We eat a wide variety of really tasty dishes, we eat well and rarely have either of us felt hungry. Every now and again we have a treat and we can still even enjoy a bottle of wine with friends in moderation. We go to restaurants but stick to a few basic rules - but the flexibility afforded by a low GI diet means we can still sensibly choose from a number of enticing dishes on any menu. In particular my wife has tried many different diets in the past but all of them have left something to be desired and she has after a short period of time found them to be restrictive and unfulfilling.

The low GI diet has been a lifestyle change for us, but refreshingly simple and easy to put into practice. So what are the results after 16 weeks? I have lost a very pleasing 62 pounds and my wife 43 pounds! We have not really increased the level of exercise we do, but we feel more energetic, the aches have gone, I have not had a single acid stomach attack, we are more positive and mentally more alert and we are getting much better quality sleep. We would never have believed anyone who said this would make this difference to our lives in just 16 short weeks - it has been so easy and we know we will not only get down to our goal weights in the next 6 months but more importantly be able to sustain what we have done whilst really enjoying our food. Tell your friends (we have ) and they are all now converts because of our enthusiasm – if we can do it – anyone can!'

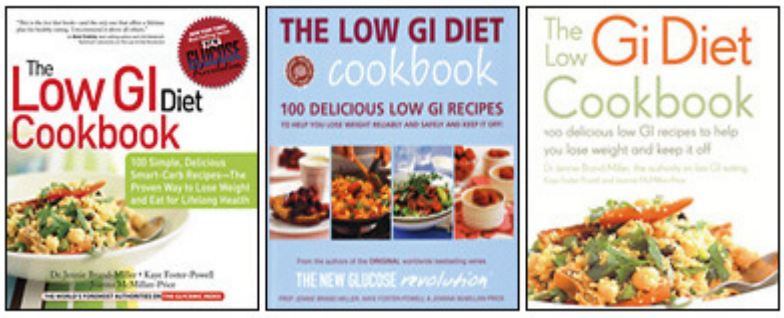
**'The great thing about the low GI diet is that it is not restrictive. It has given me more freedom in what I eat and more energy' – Veronica**

'I lost almost 20 kilos on the low GI diet. I had tried various diets before low fat, detox etc. but it never made any difference to my weight and they were often quite restrictive in what they allowed you to eat. So I could never keep them up for long. It took one year to lose the weight, with once a week exercise and now 2 years later I still have not regained the weight. My diet is varied, enjoyable and does not make me gain weight. The great thing about the low GI diet is that it is not restrictive, you can eat most foods, you only need to modify your diet slightly, like eating grainy bread instead of white bread. I find low GI foods taste better too. Oat biscuits are great. It has also allowed me to eat lots of foods that I would never have eaten before as I thought they were too fattening. It has given me more freedom in what I eat and more energy.'

**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 story** 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 *The Low GI Diet Cookbook* or *The Low GI Vegetarian Cookbook* if your story is published in *GI News*.

We'll send you a free copy of *The Low GI Diet Cookbook* or *The Low GI Vegetarian Cookbook* if your story is published.




Posted by GI Group at 8:06 AM

## Move it and Lose it!

**Glenn answers those FAQs about exercise:**
**My top bloke absolutely refuses to set foot in a gym. What can I encourage him to do?**
**What activities do men tend to keep to?**


Glen Cardwell

1. **Running**. Most blokes like to don the joggers, the holiday T-shirt (Hawaii, Bahamas, Bali) and the torn shorts and crank out some pavement miles.
2. **Walking** is a bit less sweaty but great for those who don't have the hips, knees and ankles that can handle pavement pounding. And it's as convenient as your front door.
3. **Swimming** needs a bit more organising but most people are close to a pool.
4. **Surfing, kayaking, surf skiing** if you are near the sea.
5. **Cycling** gives him the thrill of spending some dollars on a top range bike and taking to the back roads or cycle paths
6. **Team sports** like tip or touch footie are a good way to keep active every week – after all you can't let your mates down.

For more information see Gold Medal Nutrition.

**Exercise goals for June**
Fitness expert Dr Joanna McMillan Price says aim to walk at a steady comfortable pace for 20 minutes on four days. **Plus** complete four resistance exercises on three days – 2 sets of 10 squats (see April GI News); 10 single leg extensions each leg (see May), 2 sets of 10 assisted push-ups (see June) and 10 lunges each leg.


Joanna McMillan-Price

**Lunges strengthen bottom and legs**
Lunges are a little more difficult than squats because one leg has to work harder. Again, they are very effective at working the thighs and bottom, with the lower leg also doing some work for a complete lower body work-out. The most common mistake is to have your feet too close together, which makes it difficult to lunge without bringing your weight forward over the front foot—aim for a long stride and work on keeping the upper body upright with your chest proud. Use a broom handle or the back of a chair to help with balance when you first do this exercise; as you become stronger you will be able to complete the exercise without assistance. Remember: Your back heel should not touch the floor during the exercise—you should be up on the ball of your foot throughout the motion.

**How to do it:**

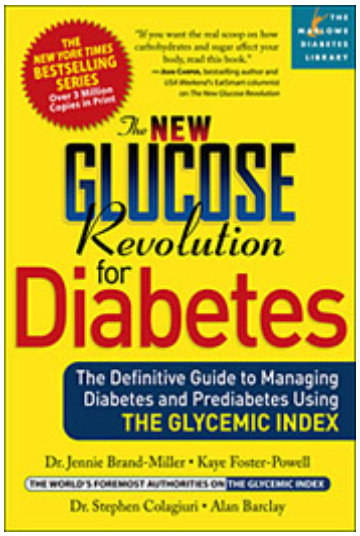
1. Stand with your feet hip-width apart and then step one foot back in a long stride behind you. Your feet should still be parallel—you should not feel like you are tightrope walking, but in a strong, tall stance.
2. Centre your body weight between your feet and tuck your hips under to maintain a long, strong spine. Slowly drop your body weight down until your front thigh is parallel to the floor and the back knee is under your hip.
3. Push your front heel into the floor to push you back to the top.

– Source: *The Low GI Diet* and *The Low GI Diet Revolution*.

Posted by GI Group at 8:05 AM

## Books, DVDs, Websites: What's New?

**THE NEW GLUCOSE REVOLUTION FOR DIABETES**
**The Definitive Guide to Managing Diabetes and Prediabetes Using The Glycemic Index**
By Dr. Jennie Brand-Miller, Kaye Foster-Powell, Dr. Stephen Colagiuri, Alan W. Barclay
Published by Marlowe & Company




This book is a landmark diet and lifestyle guide for everyone either living with diabetes or at risk for it. It is the resource everyone needs to establish the most healthful and enjoyable way of managing diabetes, and offering insightful, real-life solutions about how to deal with sugar, nutritive sweeteners, alcohol, snacks and eating out.

*The New Glucose Revolution for Diabetes* features the latest, most accurate information about type 1, type 2, pre-diabetes and gestational diabetes with:

- The latest scientific findings on the GI and the benefits of eating low-GI foods
- Daily food guides and menus
- Comprehensive GI tables measuring the GI levels of hundreds of everyday foods
- How to use the GI Index as an effective weight control strategy
- How to improve cardiovascular health and insulin sensitivity

"Diabetes is the epidemic of the 21st century and this book will empower you to take charge of your life and 'live well' with diabetes. Written by the world's experts on diet and the glycemic index, this book will provide the tools you need to make dietary and lifestyle changes to achieve lifelong health. The authors are to be congratulated for an eminently lucid book with the potential for real impact on public health."

— JoAnn E. Manson, MD, professor of medicine, Harvard Medical School, and chief of preventive medicine, Brigham and Women's Hospital

"*The New Glucose Revolution for Diabetes* is a fantastic book that covers everything about diabetes in simple, clear and easy-to-read language while it is also accurate and up-to-date. The discussion about GI is balanced and places it into exactly the right perspective as an important and helpful component of the diet, but not the only thing that needs to be considered. Not only does it have lots of helpful technical information about diabetes but it also has lots of practical tips and tasty recipes. This is the only book that people with diabetes will need."

— Thomas M. S. Wolever, PhD, DM, department of nutritional sciences, University of Toronto

Leading diabetes organizations, including the American Diabetes Association and the Joslin Diabetes Center in Boston, are advocating for the approach spelled out for diabetics in *The New Glucose Revolution for Diabetes*.

**WE HAVE 12 COPIES TO GIVE AWAY!**
We have 6 copies of *The New Glucose Revolution for Diabetes* published by Marlowe & Company to give away to residents of the US or Canada only. The first six people to email will receive a free copy. Insert 'Diabetes Giveaway' in the subject line and include your name and postal address in the message area. North Americans email us HERE.

We also have 6 copies of *The New Glucose Revolution for Diabetes and Pre-diabetes* published by Hachette Livre Australia to give away to residents of Australia only. The first six people to email will receive a free copy. Insert 'Diabetes Giveaway' in the subject line and include your name and postal address in the message area. Australians email us HERE.

Posted by GI Group at 8:04 AM

## Feedback—Your FAQs Answered

**I have been hunting for the GI of blackberries, raspberries, blueberries, honeydew melon, tangerine, currants, crab apples, lemon, lime, cumquats, nectarine, plum, rhubarb and have had no luck.**
Apologies, to our regular GI News readers who have seen this question in other guises more than once before – it's a regular to gifeedback. To deal with the 'where to hunt' bit first. Check out

the database at www.glycemicindex.com, *The Shopper's Guide to GI Values* (it is updated annually), use the Google search facility in the right-hand column of every issue of GI News, or thumb through the 'top 100 low GI foods' section of *Low GI Eating Made Easy*.

More importantly, we know that people who eat three or four serves of fruit a day, particularly apples and oranges, have the lowest overall GI and the best blood glucose control. Naturally sweet and filling, fruit is widely available, inexpensive, portable and easy to eat – just like other snack foods, but without the added fat and sugar. In fact, the sugars in fruits and berries have provided energy in the human diet for millions of years. It shouldn't come as too much of a surprise, therefore, to learn that these sugars have low GI values. Fructose, in particular – a sugar which occurs in all fruits and in floral honeys – has the lowest GI of all. Fruit is also a good source of soluble and insoluble fibres which can slow digestion and provide a low GI. And as a general rule, the more acidic a fruit is, the lower its GI value.

**Temperate climate fruits** – apples, pears, citrus (oranges, grapefruit, mandarins, tangerines) and stone fruits (peaches, plums, apricots) – all have low GI values. Lemons and limes contain virtually no carbohydrate but provide acidity that slows stomach emptying and lowers the overall GI of a meal so use them to make a vinaigrette dressing or simply squeeze over veggies.

**Tropical fruits** – pineapple, paw paw, papaya, banana, rockmelon (cantaloupe) and watermelon tend to have higher GI values, but their glycemic load (GL) is low because they are low in carbohydrate. So keep them in the fruit bowl and enjoy them every day if you wish as they are excellent sources of anti-oxidants.

**Berries** – Apart from strawberries (GI 40), most berries have so little carbohydrate it's difficult to test their GI. So they will have negligible impact on blood glucose levels. Enjoy them by the bowlful.

**Dried fruit** – Apple rings, apricots, currants, dates, prunes, sultanas etc have low GI values and are a great source of fibre, but the calorie count is much greater than for fresh fruit, so watch portion size. Dried fruit can be very more-ish!

**Rhubarb** – has virtually no carbs at all, so the GI can't be measured. If you stew it up with lots of sugar (GI 60) of course, that's a different story. See GI News July 2006.

**How much fruit? One serve is equivalent to:**

- 1 medium piece of fresh fruit such as an apple, banana, mango, orange, peach or pear (about 120 g/4 oz)
- 2 small pieces of fresh fruit such as apricots, kiwi fruit or plums (about 60
- 1 cup of fresh diced or canned fruit pieces including grapes and chopped
- berries and strawberries
- 4–5 dried apricot halves, apple rings, figs or prunes (about 30 g/1 oz);
- 1½ tablespoons sultanas (about 30 g/1 oz)
- 200 ml (about ¾ cup) 100% fruit juice, homemade or unsweetened

**Can you please clarify the main things my type 2 diabetic husband can do to reduce his glucose levels?**
Well see a doctor and a dietitian have to be numbers one and two on the list. After that? First of all check out March 2007 *GI News* where dietitian and author Kaye Foster-Powell highlights the key aspects you need to focus on. To get you started, here's her healthy type 2 diabetes checklist from *The New Glucose Diabetes Revolution*.


Kaye Foster-Powell

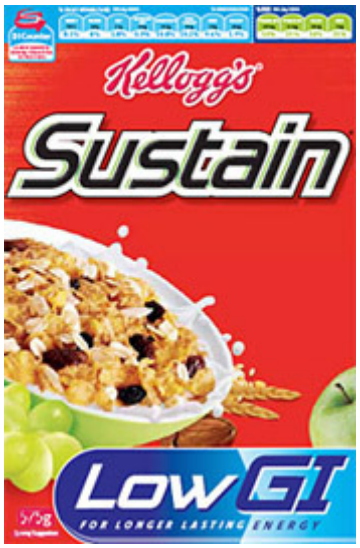
- Use poly and/or monounsaturated margarines and spreads instead of butter and butter blends.
- Use olive and/or canola oils in cooking and for salads.
- Don't drink more than 1–2 standard alcoholic drinks a day.
- Eat more than 3 cups (300 g) of vegetables every day (this includes soups).
- Eat more than 2 pieces (200 g) of fruit every day.
- Include legumes (canned or dried peas, beans or lentils) in your diet at least twice a week.
- Eat fish (100 g or more) at least twice a week.
- Include low fat dairy products (or calcium-enriched alternatives) in your diet daily and generally avoid full cream types.
- Eat wholegrain and high fibre cereals, breads and grains daily – look for the low GI ones.
- Eat lean red meat (all visible fat trimmed) or poultry (skin removed) in moderately sized (less than 150 g/5½ oz) portions.
- Drink 6–8 glasses of water, or other low kilojoule beverages, every day. Drinking more water won't lower your blood glucose levels, but high blood glucose means you should drink more water to avoid dehydration.

Posted by GI Group at 8:02 AM

# GI Values Update

**The latest GI values**

**Kellogg's Sustain**
'Breakfast is a great opportunity to go for low GI Gold by selecting a low GI breakfast cereal,' says Prof Jennie Brand-Miller. As there aren't many low GI packaged breakfast cereals on the supermarket shelves here in Australia, it's good to see another join the ranks: Kellogg's Sustain - with a GI of 55 (and that's on its own, without any milk). Add the milk and fruit and you'll be well on the way to going for Gold and achieving a lower GI breakfast that Jennie advocates. For more nutrition information check out the Kellogg website: www.kellogg.com.au

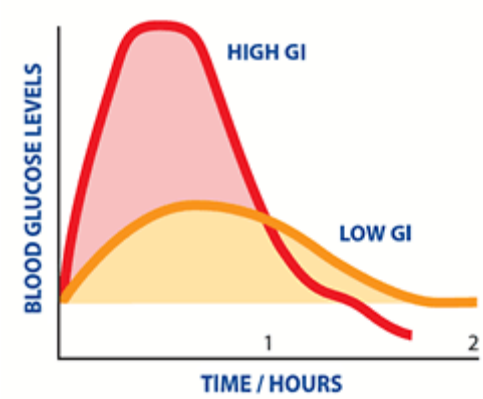



**My Dutch website gives beer a GI of 110. You say it doesn't have one. Can you explain the discrepancy?**
What you need to know is that a glass of beer has so little carbohydrate that it's difficult to test its GI. That's why we listed its GI and GL as 0 in earlier editions of the New Glucose Revolution series books. But eventually we decided that the valid way to test beer (because we are always being asked by beer drinkers) would be by comparing responses to a 10 g carbohydrate portion of beer (about 300 ml or a bit over a cup) with a 10 g carbohydrate portion of glucose (in standard GI testing a 50 g carbohydrate portion is normally used). In this test the GI came out as 66. The GL will be therefore be 66 x 10/100 = 6.6 (round up to 7).

It appears that your Dutch website is quoting a figure from the Montignac database which says maltose beer has a GI of 110. We asked the Montignac people recently (you can contact them through their website) how they determined the GI of foods in their tables. Here's what they said:
'We use official published tables when we think they are reliable and make our own calculation with the in vitro method when needed.'

This is clearly of great concern because access to accurate information about GI values is vital for consumers, health professionals and people with diabetes so they can make informed food or beverage choices. The key point is that the GI of a food must be tested physiologically – that is in people not test tubes. There's a standardised international method of what's called in vivo (in people) testing adopted by leading labs around the world and Australia has the world's first published GI Testing Standard (*GI News* February 2007) which is currently being reviewed by the International Standards Organisation for possible adoption by other member countries. In vitro testing (ie in a test tube) is a handy shortcut method manufacturers sometimes use in developing foods because it's much, much cheaper to do, but it is also unreliable: it may or may not reflect the true GI of a food. See the discussion about the two different methods in the *European Journal of Clinical Nutrition* 'Testing the glycaemic index of foods: in vivo not in vitro', *EJCN* (2004) 58, 700–701. Doi:10.1038/sj.ejcn.1601856.

**Here's how the GI is measured in vivo:**
To determine a food's GI rating, measured portions of the food containing 10–50 grams of carbohydrate are fed to 10 healthy people after an overnight fast. Finger-prick blood samples are taken at 15–30 minute intervals over the next two hours. These blood samples are used to construct a blood sugar response curve for the two hour period. The area under the curve (AUC) is calculated to reflect the total rise in blood glucose levels after eating the test food. The GI rating (%) is calculated by dividing the AUC for the test food by the AUC for the reference food (same amount of glucose) and multiplying by 100 (see Figure 1). The use of a standard food is essential for reducing the confounding influence of differences in the physical characteristics of the subjects. The average of the GI ratings from all ten subjects is published as the GI of that food.




If you are unsure about how to use the GI database, just scroll down to the bottom of *GI News* and see the step-by-step guide.

**Where can I get more information on GI testing?**

**North America**
Dr Alexandra Jenkins
Glycemic Index Laboratories
36 Lombard Street, Suite 100
Toronto, Ontario M5C 2X3 Canada
Phone +1 416 861 0506
Email info@gilabs.com
Web www.gilabs.com

**Australia**
Fiona Atkinson
Research Manager, Sydney University Glycemic Index Research Service (SUGiRS)
Human Nutrition Unit, School of Molecular and Microbial Biosciences
Sydney University
NSW 2006 Australia
Phone + 61 2 9351 6018
Fax: + 61 2 9351 6022
Email sugirs@mmb.usyd.edu.au
Web www.glycemicindex.com

**New Zealand**
Dr Tracy Perry
The Glycemic Research Group, Dept of Human Nutrition
University of Otago
PO Box 56 Dunedin New Zealand
Phone +64 3 479 7508
Email tracy.perry@stonebow.otago.ac.nz
Web glycemicindex.otago.ac.nz

**Where can I get more information on the GI symbol program?**

Alan Barclay
Acting CEO, Glycemic Index Ltd
Phone: +61 2 9785 1037
Fax: +61 2 9785 1037
Email: awbarclay@optusnet.com.au
Web www.gisymbol.com.au