



GI NEWS

The Official Glycemic Index Newsletter



JANUARY 2016

THIS MONTH: Going low GI – the level 1 evidence on the benefits of low GI diets and tips on how to; Heart Foundation retires Tick symbol; Prof Jennie Brand-Miller on dates and their GI value; GI values for wraps, tortillas and chapattis; Holiday eating on the road with Dr Alan Barclay; Meat and cancer – the take-home from the WHO report with Nicole Senior; Takeaways you can make at home: 6 recipes; Your shopper’s guide to the 2016 GI Symbol shopping basket.

FOOD FOR THOUGHT

GOING LOW GI

Choosing healthy low GI carb foods is a key dietary choice. These smart carbs help you stabilise blood glucose levels, feel fuller for longer, and maintain a consistent weight. And the evidence keeps stacking up.



- For diabetes: All of the evidence based recommendations for the management of diabetes from the major diabetes organisations around the globe (e.g. [Canadian Diabetes Association](#)) now advise people to use the GI or GL as part of the nutritional management of diabetes.
- For gestational diabetes (GDM): In their recently released guidelines, [Initiative on gestational diabetes mellitus: A pragmatic guide for diagnosis, management, and care](#), the International Federation of Gynecology and Obstetrics have recommended a focus on lower GI foods. “Low GI diets are associated with less frequent insulin use and lower birth weight than in control diets, suggesting that it is the most appropriate dietary intervention to be prescribed to patients with GDM,” they say.
- For cholesterol: An [analysis of 28 randomised controlled trials](#) provided high-level evidence that high-fibre, low GI diets can significantly reduce total and LDL cholesterol levels, independent of weight loss.
- For maintaining weight loss: [The Diogenes study](#) from Europe found that a moderately high protein, low GI diet is the best for longer-term weight management.

“The GI was introduced back in 1981 to rate the glycemic character of the carbohydrate in individual foods like bread, breakfast cereal, rice, pasta, apples etc,” says Prof Jennie Brand-Miller. “The purpose was to exchange one carbohydrate source with another for snacks and in your meals (e.g. replacing a high GI breakfast cereal like corn flakes with a low one like natural muesli). The decision behind the cut-offs for rating high GI (70 or higher) and low GI (55 or less) foods, was based on the spread of GI values among the single foods that had been GI tested.

Increasingly we are asked about the GI of mixed meals and the effect of extra protein and fat in the food on GI and blood glucose response. Eaten alone, protein and fat have little effect on blood glucose levels, but that’s not to say they don’t affect your blood glucose response when they are combined with a carb-rich food. Protein will stimulate additional insulin secretion, resulting in lower blood glucose levels. Protein and fat both tend to delay stomach emptying, thereby slowing the rate at which carbohydrate can be digested and absorbed. So a high fat meal will have a lower glycemic effect than a low fat meal even if they both contain the same amount and type of carbohydrate.

We believe there’s a real need to define the difference between a low GI diet and/or meal and a low GI food. Because a low GI food is defined as 55 or less, everyone has made the reasonable



assumption that a whole diet that averages 55 or less is a low GI diet. In fact the average Australian and American diets already have a GI of around 55–60 because we eat fruits and dairy foods which are naturally low GI. So, to reduce the risk of chronic disease, we believe we need aim lower and suggest that 45 is a better cut-off point for a low GI diet.



Why 45? Well, we know from numerous observational cohort studies around the world that the daily average GI of the diet of people in the lowest quintile (20% of the population) is about [40–50](#). Similarly, in a meta-analysis in [Diabetes Care](#) of 15 experimental studies investigating the role of low GI diets in managing diabetes, the daily average GI was 45. Since this average GI has been proven to have significant health benefits in people with existing diabetes and in reducing the risk of chronic diseases like heart disease and diabetes, and importantly, people can and do achieve it in real life, we believe a GI of 45 or less is what we all need to be aiming for.”

HOW TO GO LOW

Think of going low GI as adding a filter to your regular healthy eating pattern. First of all, it only applies to the carb-rich fruit, vegetables, legumes and grains you like to eat and secondly, it's flexible and can be tailored to suit a range of “diets” from high carb to low; paleo to vegetarian/vegan; gluten-free or low FODMAP to I Quit Sugar or Weight Watchers. Here's our 2-step approach going low GI.

- **Step 1: Swap it:** Replace the high GI foods in your diet with low GI ones. You can find out more about how to do this [HERE](#).
- **Step 2: Don't overload:** Choosing low GI is not a free pass to pile your plate. Keep those carb-rich portions moderate so the glycemic load is moderate too. What's moderate? It's about a quarter of your dinner plate (inner rim) or 2–3 small lower GI potatoes such as baby Carisma or Nicola, ½ cup diced orange fleshed sweet potato or corn kernels or baked beans and ⅓ cup cooked basmati or other lower GI rice or pasta.

SUGiRS (Sydney University GI Research Service) publishes the GI values of popular foods each month. January's spotlight is on wraps, tortillas and chapattis.

NEWS BRIEFS

Australia's Heart Foundation decides to retire the Tick; Where good farming and good food intersect: 3 new books: Kate McGhie's *Apple Blossom Pie: Memories of an Australian country kitchen*, Dan Barber's *The Third Plate*, Forrest Pritchard's *Growing Tomorrow*; Packing a picnic: the GI values of wraps, pita, tortillas and chapattis.

NO MORE TICKS

Australia's Heart Foundation has decided to retire the Tick program which has been running for 26 years as they believe that Australian shoppers' demands are changing and the Healthy Star Rating (HSR) system which was introduced in December 2014 “has been well received by food manufacturers ... and is becoming well established and well understood by shoppers”. It is expected that the program will be off the shelf in the next 12 to 24 months.



Symbols such as the Tick and the GI Symbol that are independently assessed and regularly re-assessed with spot checks, provide consumers with certified and recognisable signposts to healthy foods and healthy diets based on a food's nutritional profile.



However, there's no denying that over the past decade or so, the nutrition landscape has dramatically changed. "We concluded," as Prof Jennie Brand-Miller says in [Old Nutrition; New Nutrition](#) "from the findings of large, long-term randomized controlled trials (RCTs) that the low fat dietary advice did not have the desired outcome. It did *not* prevent people from getting heart disease, stroke, type 2 diabetes, breast cancer, and colorectal (bowel) cancer etc. In fact, the prevalence of obesity and type 2 diabetes just continued to increase. We also noted that *some* carbs were worse for us than saturated fat. Carbs with high glycemic index (GI) values, in particular, were linked to higher risk of heart disease, type 2 diabetes and some cancers. High GI carbs include those in most potatoes, breads, breakfast cereals, rice – even in the wholegrain versions."

To reflect the changes to our understanding of the health effects of dietary fats and total carbohydrate, the GI Foundation has revised and updated its [Product Eligibility and Nutrient Criteria](#).

The Health Star Rating highlights energy (calories/kilojoules), saturated fat, sugars, sodium and fibre and assigns a rating from ½ a star to 5 stars on the front of the pack. It is not based on the overall nutritional content of a food – bottled water can carry five stars. It ignores micronutrients – vitamins, minerals and phytochemicals – and the GI of the carbohydrates – a factor proven to help to curb appetite along with protein.

"Appetite matters. Appetite is what drives our energy intake" says Prof Jennie Brand-Miller. "It is not possible to balance energy intake and energy expenditure by counting calories. Firstly, no one knows how many calories they expend each day. Even if you could, the calories on the food label are not precise enough. Secondly, mathematical modelling shows that a small but persistent excess of only 7 calories or 30 kilojoules per day over and above energy requirements for 10 years underlies the current epidemic of obesity. The best way to balance calories in and calories out is to weigh yourself regularly (on accurate scales) or use the belt test"

These are challenging times on the health frontier and we are sorry to see the Tick being scrapped.

DOWN ON THE FARM

For many consumers today, understanding where our food comes from, how it is grown and how animals are cared for matters. Three books have crossed our desk in recent months that may be of interest.

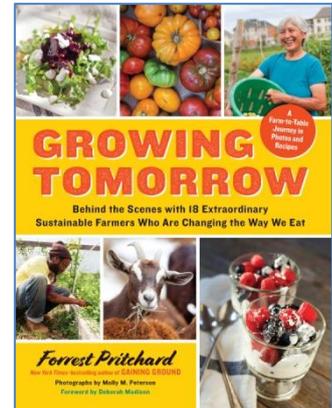
Apple Blossom Pie: Memories of an Australian country kitchen (Murdoch Books) – Kate McGhie was born into seven generations of a family who worked and respected the land. Their family farm in rural Victoria produced almost everything they ate. There were dairy and beef cattle, sheep and goats; a huge vegetable garden; a potato patch that filled two acres with five different varieties; and an orchard shared with the possums and birds. In her book, Kate McGhie shares 120 tried and true country dishes as well as contemporary interpretations for today's family. But it's the stories of life on the land that will make you laugh and sometimes bring tears to your eyes.

The Third Plate (Penguin Press) by Dan Barber is where good farming and good food intersect. Traditionally, we have dined on the "first plate", a meal centred on a cut of meat with few vegetables. The farm-to-table movement championed the "second plate" – where the meat is from free-range animals and the vegetables are locally-sourced. It's better tasting, and better for the



planet, but in the end it isn't a sustainable way to farm or eat. The solution, explains Barber, lies in the "third plate": an integrated system of vegetable, grain, and livestock production that is fully supported – in fact, dictated – by what we choose to cook for dinner.

Growing Tomorrow (The Experiment) by Forrest Pritchard takes us behind the scenes with 18 sustainable US farmers. He chronicles their daily risks and unpredictable challenges. It's both a farm inspired cookbook and a homage to people who provide people with delicious fresh food – from a citrus grove in California to a sustainable fishery on Cape Cod.



SUGiRS WRAPS UP A PICNIC

Wraps are great for picnics and bushwalks/country rambles. Rather than taking sandwiches and risk having a rather soggy lunch, take the fillings in plastic containers and your favourite wraps and make your meal on the spot. As everyone gets to assemble their own, there's no second guessing about who will eat what. Nor will you have to watch people laboriously deconstructing sandwiches to remove the onion or gherkin.



TYPICAL PORTION – 1 wrap or piece	PER 100 GRAMS				
	GI	Available CARBS Grams	GL	Available CARBS Grams	GL
Chapatti (corn), 1 small, 35g	59	14	8	40	24
Chapatti (bajira), 1 small, 35g	49	14	7	40	20
Chapatti (barley), 1 small, 35g	48	14	8	40	19
Mountain bread, oat wrap, 25g	62	13	8	52	32
Naan, 15cm diameter, 63g	71	27	19	43	30
Pita bread, white, 60g	57	33	19	55	31
Taco shell, large, corn, 20g	68	11	7	55	37
Tortilla, white corn, 26g (Mission)	52	11	6	42	22
Tortilla, low carb wrap, 43g (Diego)	51	11	6	25	13

For more information about these products, check out the GI Database at: www.glycemicindex.com



Glycemic Index testing by Sydney University GI Research Service SUGiRS was established in 1995 to provide a reliable commercial GI testing laboratory for the local and international food industry. Food samples are tested in healthy volunteers according to standardised methods that have been validated against overseas laboratories. Testing of foods for their glycemic index, insulin index, satiety response, and other metabolic parameters can be assessed simultaneously. SUGiRS also works with companies to develop new low GI products or help lower the GI of existing ones. Other analyses such as in vitro GI testing and siaclic acid measurement is also available. Principal researchers / consultants: Professor Jennie Brand-Miller, SUGiRS Manager Fiona Atkinson, PhD.

Contact Fiona Atkinson: sugirs.manager@sydney.edu.au

TAKE PART IN CLINICAL TRIALS

[Sydney University's Boden Institute](#) is a joint initiative of the Faculties of Health Sciences, Medicine, and Science. The Institute is regularly recruiting participants for a range of clinical trials. The contact details for anyone interested in participating, particularly people with pre-diabetes, are:

- Email: clinicaltrials.boden@sydney.edu.au
- Telephone: (02) 8627 0101

THE CHARLES PERKINS CENTRE – WRITER IN RESIDENCE FELLOWSHIP 2016

The Charles Perkins Centre Writer in Residence Fellowship 2016 has been made possible thanks to the generosity of its inaugural Patron, Judy Harris. It will support an established Australian writer to create new work within Australia's leading interdisciplinary centre for improving health in the modern environment. The fellowship will be for one year (2016–2017), and will include:

- a grant of AUD \$100,000
- an Honorary Appointment at the University of Sydney
- a base in the Charles Perkins Centre Research and Education Hub
- full library access, and
- the opportunity to meet and work with a diverse range of researchers, educators and clinicians at the Charles Perkins Centre.

For more information: <http://sydney.edu.au/perkins/about/writer-in-residence.shtml>

PERSPECTIVES WITH DR ALAN BARCLAY

HEALTHY EATING ON THE ROAD

An important part of having a good holiday is eating out and exploring different foods. While kilojoule-laden takeaways often line the routes of major highways, you don't have to frequent them. Bring your own, or look for more interesting and nutritious alternatives in the local towns and villages you find along the way.



Plan ahead. If you can, choose to stop at cafés or restaurants that have at the very least a selection of nutritious options. Think about how much food you want to eat, and then decide whether you will have just a sandwich, an entrée or main course.



If you have diabetes, make sure that you choose a meal that will provide you with enough carbohydrate. If a particular dish does not have adequate carbohydrate in itself, ask for extra. If when your meal arrives, it contains more carbohydrate than what you would normally eat, you can either choose to leave some of the food on the plate or ask for a doggy bag – you don't *have* to eat it all – save some for later.

Enjoy quality fats. Look for foods that are prepared with extra virgin olive oil, Canola, peanut or sesame oil, avocado, nuts or seeds or contain fatty fish. Creamy sauces, dressings, mayonnaise, sour cream, etc...are often served with a meal and often contain a large proportion of saturated fat so keep them to a minimum – ask them to serve them on the side so that you control how much you actually eat. Chips/French fries, pastries, and some high fat meats (e.g. sausages, many cold meats, etc.) can also contain a large amount of saturated fat and the chips and pastries are high in refined carbohydrates so best to only consume them in small amounts, if at all.

Enjoy a moderate amount of high quality protein foods at each meal like dairy foods (e.g. milk, cheese and yoghurt), fish, lean meat or poultry, eggs, beans, legumes, tofu, etc.

LIGHT MEALS	TIPS FOR BETTER CHOICES
Sandwiches (Fresh or toasted)	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Ask for wholegrain bread with a small amount (e.g. 1 tsp) of butter/margarine or avocado as a spread instead <input checked="" type="checkbox"/> Include salad <input checked="" type="checkbox"/> Choose healthy fillings like baked beans, reduced fat hard cheese, cottage/ricotta cheese, hommos, lean ham/turkey/chicken, tuna or salmon
Hamburgers	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Ask for extra salad <input checked="" type="checkbox"/> Request a wholegrain or wholemeal roll <input checked="" type="checkbox"/> Ask for only a small amount of butter/margarine or mayonnaise on the roll <input checked="" type="checkbox"/> Choose a lean meat, chicken or fish patty <input checked="" type="checkbox"/> Choose either meat or cheese or egg (not all three)
Stuffed potatoes	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Ask for toppings of salad, baked beans, creamed corn, tuna/salmon, or reduced fat cheese like cottage or ricotta <input checked="" type="checkbox"/> Limit high saturated fat toppings like regular cheese or sour cream <input checked="" type="checkbox"/> Eat the potato skin for extra fibre
Pizza	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Ask for a thin and crispy base <input checked="" type="checkbox"/> Choose toppings like mushrooms, pineapple, capsicum, onion, eggplant, tomatoes and/or seafood <input checked="" type="checkbox"/> Limit high kilojoule/saturated fat toppings like extra cheese, salami and peperoni
Chicken	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Choose barbecued chicken rather than crumbed or fried chicken <input checked="" type="checkbox"/> Remove the skin and limit the gravy <input checked="" type="checkbox"/> Have salads, bread rolls, mashed potatoes, corn or peas instead of chips/French fries
Fish and Chips	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Ask for fish to be grilled if possible <input checked="" type="checkbox"/> Choose thick/straight cut chips or wedges instead of French fries and ask for a small serve



MAIN MEALS	TIPS FOR BETTER CHOICES
Asian (Chinese, Thai, Malaysian, Vietnamese)	<ul style="list-style-type: none"> ☑ Choose noodle/vegetable soups ☑ Choose steamed entrees instead of fried ☑ Choose steamed, braised, curried, or barbequed seafood/lean meat/skinless poultry ☑ Choose stir fry dishes with lean meat/fish/poultry/tofu and vegetables ☑ Choose steamed rice or noodles ☑ Limit deep fried and battered dishes ☑ Fill your plate with vegetables, and noodles / rice, and use the meat/fish/poultry as the flavouring
Italian	<ul style="list-style-type: none"> ☑ Choose minestrone/vegetable soup rather than creamy soups ☑ Choose grilled fish or other seafood ☑ Choose pasta with tomato or vegetable based sauces (and ask about portion sizes – the entree size may be all you need) ☑ Choose lean meat, chicken or grilled fish
Greek	<ul style="list-style-type: none"> ☑ Choose yoghurt or bean based dips ☑ Choose grilled marinated meat on skewers or in Lebanese bread with salad ☑ Choose kibbeh, tabbouleh and bean salads
Mexican	<ul style="list-style-type: none"> ☑ Choose tostadas, enchiladas, burritos or tacos ☑ Choose less meat and more beans ☑ Ask for either cheese or sour cream or guacamole (not all three), and go easy on the quantity ☑ Ask for extra salad as a filling or side dish
Indian	<ul style="list-style-type: none"> ☑ Choose lean meat/chicken/fish in curry sauces, herbs, spices or tandoori ☑ Choose curried vegetables, steamed rice, chapatti, or roti ☑ Limit curries based on cream/coconut milk/coconut cream, rice pilau, poori (deep fried flatbread)

Dare to be different If there aren't any foods on the standard menu that look suitable, don't be afraid to ask the café or restaurant to prepare something different for you. If they value your patronage (most do) they are usually happy to prepare or modify a dish so that it meets your needs.



Alan Barclay PhD ([LinkedIn](#)) is a consultant dietitian and Chief Scientific Officer at the Glycemic Index Foundation. He worked for Diabetes Australia (NSW) from 1998-2014 and is a member of the editorial board of Diabetes Australia's health professional magazine, *Diabetes Management Journal*. Alan has authored or co-authored over 30 scientific publications, is co-author of *The Low GI Diet: Diabetes Handbook*, *The Low GI Diet: Managing Type 2 Diabetes*, and *The Ultimate Guide to Sugars and Sweeteners*, and presents at conferences around the globe. Contact: alan.barclay@gisymbol.com



NICOLE SENIOR'S TASTE OF HEALTH

WHAT YOU NEED TO KNOW ABOUT MEAT AND CANCER

The headlines have been full of stories about meat and cancer triggered by the release of a comprehensive report from the International Agency for Research on Cancer (IARC), the cancer agency of the World Health Organisation (WHO). The report concludes that processed meat *is* carcinogenic to humans, and red meat is *probably* carcinogenic. Many media stories have made much of the idea that this places bacon, salami and ham on the same carcinogen list as arsenic, smoking and plutonium. Here's what you need to know about meat and cancer.



This finding is not new The evidence has been building for some time that eating too much meat, especially processed meat, increases cancer risk. Dietary Guidelines around the world already take this into account. For example, the Australian Dietary Guidelines do not place processed meat into the Meat food group but classify them as discretionary foods along with alcohol, sweet drinks, confectionary, cakes and donuts. Discretionary foods are foods to be limited because they are high in risky ingredients such as salt, sugar, saturated fat and kilojoules. These guidelines also suggest limiting lean red meat to no more than 450g (1lb) per week.

Processed meat does not carry the same risk as smoking or arsenic Although the IARC has now classified processed meat as a carcinogen, eating lots of it does not carry the same relative risk as smoking or taking arsenic. The relative risk of eating lots of processed meat is quite small by comparison, which is not to say we should ignore it but we need to keep things in perspective.

Enjoy processed meats occasionally and in small amounts We've known for some time that processed meat is not an everyday choice. Processed meats are strongly flavoured and a little goes a long way in cooking. In practical terms, use them sparingly. A serving of bacon is not a healthy choice for breakfast every day. A better way to go is enjoying a lean rasher with an egg on wholegrain toast with a side of tomato and spinach. Pizza lovers, stick to once a week at most and try the less meat-heavy toppings such as seafood and vegetables rather than three or four different kind of processed meat such as 'meat-lovers' or 'supreme' all the time. Enjoy your pizza with a salad.

Don't overdo red meat Lean red meat is a nutrient dense food and a great source of iron and zinc. You don't need to give it up altogether but simply ensure you're eating less than 450g a week. Dietary surveys tell us that in Australia, its only men who need to cut back to meet this target. Women are not overdoing it, and some may benefit from eating a little more in order to meet their iron needs. While many steak restaurants, pubs and clubs haven't yet caught on, we are in the midst of a culinary revolution where meat is not longer the main event on the plate and vegetables, grains, legumes and nuts are stepping up to take their rightful place in a balanced meal.

Enjoy plenty of protective plant foods Why do people following the traditional Mediterranean diet seem to live longer and healthier lives? Because they eat a mostly plant based diet. They never eat a meal without vegetables, and never go a day without fruit. Meat is a tasty garnish rather than hanging off the edge of the plate. Meals have colour, texture and flavour. Plant foods are loaded with beneficial nutrients, including phytochemicals with anti-cancer activity. Plant foods are protective so make sure you get enough. Eating some meat in this context is absolutely fine.



Enjoy an active lifestyle When it comes to cancer, meat is only one of the many lifestyle factors that are important in influencing your risk. We know physical activity is protective, as is preventing obesity. The same old, well known messages about not smoking still stand; and the risks are significantly greater than those posed by eating too much meat or processed meat. Let's face it, we know all this stuff but your challenge is making it happen in your own life. If you need help, please make an appointment to see an Accredited Practising Dietitian (or Registered Dietitian in the USA, Canada or UK) to help you enjoy a healthy balanced diet that suits you.



Nicole Senior is an Accredited Nutritionist, author and consultant who strives to make healthy food taste terrific. You can follow her on [Twitter](#), [Facebook](#) or checkout her [website](#).

IN THE GI NEWS KITCHEN THIS MONTH

Spend time not money and and enjoy the fun and flavour with these takeaways that you can make at home.

HOLIDAY FARE: 6 RECIPES FOR FUN AND FLAVOUR

Soup, salad, finger food, snack and treat. Oh, and fish and chips!

SOUP'S UP! VEGETARIAN LAKSA

This recipe is from *The Low GI Vegetarian Cookbook* (Hachette). It's quick and easy and a tasty way to introduce kids to tofu.

Preparation time: 15 minutes

Cooking time: 10 minutes

Serves: 4

125g (4½oz) dried rice stick noodles
⅓ cup red curry paste
300g (10oz) firm tofu, patted dry with paper towel, cut into 1cm (½in) cubes
2½ cups (625ml) good quality vegetable stock
270ml (9fl oz can light coconut milk
1 large carrot, cut into short thin sticks
100g (3½oz) shitake mushrooms, thinly sliced
125g (4½oz) green beans, diagonally sliced
3 baby bok choy, leaves separated, washed, shredded
1 tbsp brown sugar
1 cup (65g) bean sprouts
½ cup picked coriander leaves
lime wedges, to serve



Cook the noodles in a large saucepan following packet instructions until just tender. Drain well. Divide the noodles among 4 large serving bowls. • Heat a large wok over high heat. Add the curry paste and tofu and cook for 2 minutes. Add the stock and coconut milk and bring to a simmer. Add the carrot, mushrooms and beans. Cook for 2 minutes. Add the bok choy and cook for a further 1



minute or until just tender. Remove from the heat and stir in sugar. • Divide the vegetables among the bowls. Ladle the liquid/broth over. Top with the bean sprouts and coriander. Serve with the lime wedges.

Per serve

379 cal/1659 kJ; 17g protein; 20g fat (includes 8g saturated fat; saturated to unsaturated fat ratio = 0.67); 34g available carbs; 8g fibre.

WHIP UP A CLASSIC SALAD

OX-HEART TOMATOES WITH MOZZARELLA DI BUFALA & BASIL

'Red. White. Green. It's all about the quality of the tomatoes, the freshness of the mozzarella and the fragrance of the basil in this classic insalata caprese from *Alla Fratelli* (Murdoch Books).

Preparation time: 10 minutes

Serves: 4

Juice of ½ lemon

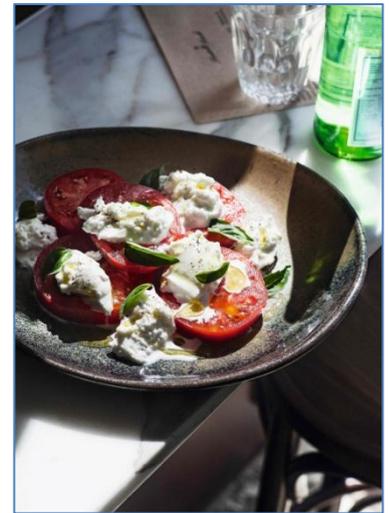
100ml (3½fl oz) extra virgin olive oil

4 ox-heart tomatoes, firm but ripe

2 x 250g (9oz) balls buffalo mozzarella, drained

12 basil leaves

In a small bowl, whisk together the lemon juice and olive oil with sea salt and freshly ground black pepper. • Slice the tomatoes across into four pieces about 5mm (¼in) thick. • Tear each mozzarella into eight pieces. Season and dress the mozzarella and tomatoes with the lemon oil, and serve piled on a plate, topped with the torn basil.



Did you know? To make mozzarella, the curd is broken up and heated in water until it becomes elastic and forms a thread, which is then wound round and round into a ball, from which the pieces are torn off or cut off (the verb mozzare means 'to cut off').

Per serve

610 cal/2550 kJ; 34g protein; 50g fat (includes 21g saturated fat; saturated to unsaturated fat ratio = 0.72); 4g available carbs (includes 4g sugars and 0g starch); 2.5g fibre; 480mg sodium; 480mg potassium (sodium to potassium ratio 1.0).



Alla Fratelli: How to eat Italian by Barry McDonald -- the man behind Sydney's Fratelli Fresh cafe/restaurants (Murdoch Books).



FINGER FOOD

CARAMELISED ONION & GOAT'S CHEESE & CHARGRILLED VEG PIZZAS

These popular pizzas from *The Low GI Vegetarian Cookbook* (Hachette Australia) make great finger food for relaxed holiday entertaining. To save time, you can buy pizza bases or use wholemeal pita (Lebanese) bread rounds.

Preparation time: 20 minutes

Standing time: 1 hour

Cooking time: 45–50 minutes

Serves: 4 (2 slices each)

Pizza dough

1½ cups (240g) stoneground wholemeal plain flour

7g (¼oz) sachet dried yeast

1 tsp salt



Caramelised onion & goat's cheese

2 tbsp olive oil

750g (1lb10oz) red onions, halved, thinly sliced

2 tbsp picked thyme leaves

2 garlic cloves, crushed

1 tbsp brown sugar

1 tbsp balsamic vinegar

60g (2¼oz) goat's cheese

Chargrilled veg

2 tbsp basil pesto

100g (3½oz) chargrilled capsicum (pepper), patted dry with paper towel, cut into thin strips

75g (2½oz) drained marinated artichoke hearts, cut into thin wedges

75g (2½oz) chargrilled eggplant, patted dry with paper towel, cut into thin strips

60g (2¼oz) bocconcini, thinly sliced

To make the pizza dough, place the flour, yeast and salt in a bowl. Add ¾ cup (185ml) water and use a flat-bladed knife to mix until just combined. Turn out onto a lightly floured surface and knead until smooth. Place in a lightly oiled bowl. Cover with plastic wrap and set aside in a warm place for 1 hour.

To make the caramelised onions, heat the oil in a large non-stick frying pan over medium heat. Add the onions, thyme and garlic and stir to coat. Reduce heat to medium-low and cook, stirring occasionally, for 25–30 minutes or until the onions are very soft. Add the sugar and vinegar and increase the heat to high. Cook for a further 5 minutes or until the onions start to caramelize. Set aside to cool completely.

Preheat oven to 230°C (450°F). Lightly grease two 28cm (11in) pizza trays. • Use your fist to punch down the dough. Divide into two. Roll one portion of dough out and use to line one tray. Repeat with the remaining dough. Spread the caramelised onions over one of the bases and sprinkle over the goat's cheese. Spread the second base with the pesto. Top with the capsicum, artichoke, eggplant and bocconcini. • Bake the pizzas, swapping the trays halfway through cooking, for 15–20 minutes or until the tops are golden and bases are crisp. Sprinkle the chargrilled vegetable pizza with basil leaves before serving.

Per serve (Caramelised onion & goat's cheese)

293cals/1225kJ; 9g protein; 12g fat (includes 3g saturated fat; saturated to unsaturated fat ratio = 0.33); 34g available carbs; 7g fibre.



Per serve (Chargrilled vegetables)

375cals/1562kJ; 17g protein; 14g fat (includes 5g saturated fat; saturated to unsaturated fat ratio = 0.55); 40g available carbs; 10g fibre.

BEST-EVER TAKEAWAY MADE AT HOME OVEN ROASTED FISH & CHIPS

This recipe is from Kate McGhie's new cookbook, *Apple Blossom Pie* (Murdoch Books). Choose lower GI potatoes such as Carisma or Nicola and don't peel them. There's all that goodness in and just under the skin. And to ensure that there is plenty of fish for generations to come use sustainable varieties – bream, mullet, flat head and whiting are a few – or lesser-loved teraglin. These species have a tender, delicate sweet-sea flavour and are often a lot cheaper.

Start to finish: 45 minutes

Serves: 6

6 big potatoes, scrubbed clean
2 tbsp olive oil
Salt flakes and coarsely ground white pepper
6 fillets fish, about 200g (7oz) each
Plain (all-purpose) flour
1 large free-range egg
2 tbsp milk
1½ cups (90g) fine day-old breadcrumbs
Lemon wedges or malt vinegar, to serve



Preheat the oven to 200°C/400°F (fan-forced 180°C/350°F).

Cut the unpeeled potatoes lengthwise into long fat wedges and tip into a large roasting pan with the oil, salt and pepper. Toss with your hands then spread them out into a single layer. Roast for about 20 minutes or until golden brown. Meanwhile, line up three shallow bowls: one for the flour, another with the egg whisked with milk and the last for breadcrumbs. Pat the fish dry and dust lightly with flour, making sure the entire surface is covered. Dunk into the egg mixture, draining the excess before coating in crumbs. Pat very lightly to seal onto the egg mixture. About 10 minutes before the end of the potato wedges cooking time, push them to one end of the roasting dish and arrange the fish in a single layer. To avoid cramping the potatoes you can cook the fish on an oven tray on another oven shelf. Roast for about 12 minutes depending on the thickness of the fish. It's not necessary to turn the fish over during cooking. A fine skewer inserted in the thickest part will glide in and out easily without any resistance when cooked. Remember fish continues to gently cook after being removed from heat. Serve with lemon wedges or, as we did as kids, with malt vinegar splashed over.

Per serve

512 cals/2145kJ; 50g protein; 13g fat (includes 3g saturated fat; saturated to unsaturated fat ratio = 0.30); 45g available carbs (includes 2g sugars and 43g starch); 5g fibre; 500mg sodium; 1735mg potassium (sodium to potassium ratio 0.29).

Tip: Coatings can be crushed cereal flakes, fresh or dried breadcrumbs or today's popular panko crumbs. If using fresh breadcrumbs make them as fine as you can, otherwise, if they are blobby, they have a tendency to break up when handled.



TWO SWEET TREAT SNACKS

FULL-OF-FRUIT MUFFINS

These muffins from *The Low GI Family Cookbook* (Hachette Australia) are about half the size of the muffins you buy in cafés and twice as satisfying because they really are full of fruit.

Preparation time: 20 minutes

Cooking time: 20–25 minutes

Makes: 24

2 cups (300g) self-raising flour

1 tsp baking powder

1½ tsp ground cinnamon

½ cup (55g) unprocessed oat bran

1 large ripe banana

1 apple (such as Granny Smith, Royal Gala or Golden Delicious),
unpeeled

150g (5oz) fresh or thawed frozen mixed berries or blueberries

½ cup (125ml) pure floral honey

2 eggs, lightly whisked

¼ cup (60ml) buttermilk

100ml (3½fl oz) canola oil



Preheat the oven to 190°C (375°F). Line 2 x 12-hole patty pan trays with paper cases • Sift together the flour, baking powder and cinnamon into a large mixing bowl. Stir in the oat bran. Make a well in the centre and set aside. • Use a fork to mash the banana in a medium sized bowl. Core and coarsely grate the apple and add to the banana. Add the berries, honey, eggs, buttermilk and oil and stir well to combine. Add the fruit to the flour mixture and fold together with a large metal spoon until just combined. • Spoon the mixture evenly into the lined patty pans and bake for 20–25 minutes or until a skewer inserted into one of the muffins comes out clean. Remove from oven and transfer to a wire rack. Serve warm or at room temperature. These muffins will keep in an airtight container at room temperature for up to 2 days.

Tip: To freeze, wrap the muffins individually in plastic wrap and then freeze in sealed freezer bags or an airtight container for up to a month. Thaw at room temperature.

Per serve

Energy 128 calories/538kJ; Protein 2.5g; Fat 4.6g (includes saturated fat 0.5g; saturated to unsaturated fat ratio = 0.25); Available carbohydrate 18.9g, (includes 8.5g sugar and 10.4g starch); fibre 1.5g; sodium 172mg.

FROZEN FRUIT ICY POLES

This is definitely a recipe the kids will want to get involved in. But before you get too enthusiastic, make sure you have plenty of room in the freezer to fit the moulds says Kate McGhie. As they come in all sorts of shapes and sizes, we can't give you a nutritional analysis. Look for moulds that hold around 100ml (3½fl oz) – that's plenty big enough for a sweet, fruity treat.

Preparation time: 15 minutes

Freezing time: about 5 hours in icy pole moulds





Flavour combinations

- Vanilla yoghurt (low fat) with sliced strawberries and blueberries
- Vanilla yoghurt (low fat) with chopped banana and honey
- Apple juice with fresh passionfruit pulp
- Pureed watermelon with blueberries

Choose your flavours and chop the fruit into small, even-sized pieces. • Fill the moulds three-quarters full with the liquid (or yoghurt). Add enough chopped fruit (or passionfruit pulp) until the moulds are almost full. Place the lids on the moulds and push in the sticks. Place in the freezer. • To serve, hold the moulds under running cold water for a few seconds to loosen them.

GLYCEMIC INDEX FOUNDATION NEWS

CHECK OUT OUR GI SYMBOL SHOPPING BASKET

The GI Symbol was developed in Australia in 2002 to make healthy shopping easier for consumers. When you see the symbol on a product it means that the food or beverage has been assessed by the experts. And it's your guarantee that the GI value stated near the nutrition information table is accurate. Foods that carry the symbol have also been judged against a range of nutrient criteria so you can be sure that the food is a healthy nutritional choice for its food group.



Which foods carry the GI symbol? The symbol identifies foods that have had their GI tested properly, and that are a healthy choice for their food category. To carry the GI symbol the food has to be independently tested following a standardised international method.

Is the GI symbol an indication that foods are healthy? Foods with the Glycemic Index Symbol are healthy in other respects. To earn the certification, foods must be a good source of carbohydrate, and meet a host of other nutrient criteria including kilojoules, total and saturated fat, sodium (salt), and when appropriate, dietary fibre and calcium.

How can we be sure the information is accurate? Foods in the program are required to undergo re-testing for their GI if there is any change in product formulation. All product labels and advertising that use the symbol or mention the program are pre-approved by the Glycemic Index Foundation.

The GI Symbol Program has been around for 14 years and in that time we have seen the awareness of GI and its health benefits grow as more and more scientific research is published supporting incorporating healthy low GI carbohydrates as part of your everyday diet.

We now have products carrying our GI Symbol in most aisles of the supermarket to help consumers make healthier choices. We have put together this [Shopper's Guide to GI Symbol Products](#) available in Australia and New Zealand for you to download and/or share with family and friends.

We wish you health and happiness for 2016.

If you are a manufacturer and want to understand how you can go about applying to have the GI Symbol on your products and what countries are eligible please contact Dianna Crisp on info@gisymbol.com

For more on the GI Foundation go to www.gisymbol.com, like us on [Facebook](#) or follow us on [Twitter](#)



Q&A WITH PROF JENNIE BRAND-MILLER

“Why are there the differences in published values for dates? I read they had a GI of 103. Does it have something to do with where they come from?”

Your interpretation that there can be differences in fruit or vegetables grown in different countries is correct. Growing conditions and the particular variety of fruit/vegetable can both influence the GI value, although typically that difference is relatively small (a 5–10 unit difference). However, in the case of dates, the original published value of 103 has been proven to be unreliable and incorrect due to methodological problems when the testing was conducted (specifically, the amount of available carbohydrate used to determine the test portion was inaccurate resulting in a substantially higher GI value).



As you may be aware, GI testing should be conducted by comparing the postprandial glucose response produced by a portion of food containing 50 grams of available carbohydrate compared to the response produced by 50 grams of available carbohydrate from the reference food (usually glucose sugar dissolved in water). In the case of that original date value of 103, a higher amount of available carbohydrate was consumed, resulting in a much larger rise in glucose and hence a very large GI value. I can confirm that dates are a low GI food (taking all of the reliable published data into account). We have removed the older study and value from our database.



Professor Jennie Brand-Miller (AM, PhD, FAIFST, FNSA, MAICD) is an internationally recognised authority on carbohydrates and the glycemic index with over 250 scientific publications. She holds a Personal Chair in Human Nutrition in the Boden Institute of Obesity, Nutrition, Exercise and Eating Disorders and Charles Perkins Centre at the University of Sydney. She is the co-author of many books for the consumer on the glycemic index and health.



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