THIS MONTH: Don’t miss out on the calcium you need; What’s in that trendy plant milk? GI and depression – is there a link? How to eat to beat gestational diabetes; Dr Alan Barclay on whether 2 eggs a day is OK if you have diabetes; Nicole Senior on the deliciously ubiquitous chickpea; Anneka’s creamy baked custard with strawberries; Dr Joanna’s roast chicken with mung bean dhal stuffing; How Milo can help when the kids won’t drink their milk neat; Complex carbs and low GI carbs: are they the same thing? Not at all says Prof Jennie Brand-Miller.

FOOD FOR THOUGHT

Boning up on calcium

Osteoporosis may not be on your mind, but maybe it should be. Two out of three of us will develop it. It’s not part of normal aging, although it is most common in the over fifties. It also has a tendency to run in families. It occurs when our bones lose minerals, such as calcium, more quickly than our body can replace them, causing a loss of bone thickness that makes our bones brittle and leads to a higher risk of fractures.

Getting enough calcium into our day will help us keep our bones strong. Combine this with exercise to stimulate our bones to lay down minerals including calcium, and enough vitamin D from a little safe sunshine, foods (e.g., fatty fish, eggs, fortified margarines and dairy foods) or supplements, and we can reduce our risk of osteoporosis.

Because plenty of calcium is a key to prevention, dietary guidelines recommend dairy foods during childhood and beyond. Not only are they an important source of calcium, they provide vitamins A, B and D. Reduced fat dairy foods are recommended for children from two years of age to help keep calories (kilojoules) down.

The Low GI Family Cookbook (Hachette Australia).
In her book *Food Myths*, Nicole Senior explained why it’s not as easy as you think to get calcium from foods other than milk. “The reason dairy foods have their own food group is because they are good sources of nutrients that are difficult to obtain from other foods. The simplified rule-of-thumb advice is to enjoy three serves of dairy food a day, although the Australian Guide to Healthy Eating recommends 2½ serves for most adults and 4 serves for women over 50.

One serve is:
- 250ml (1 cup) of milk
- 200g (1 regular tub) of yogurt
- 40g (2 thin slices) of cheese

Each of these foods contains around 300mg calcium. You can see from the box below where the ‘three serves a day’ rule of thumb came from – three serves of dairy a day provides 900mg calcium. In fact three serves of dairy a day is still a serve short for meeting the calcium needs of teenagers, women over 50 and men over 70.

| Nutrient Reference Value (NRVs) for calcium at different ages. |
|----------------------------------|-------------------------|--------------------------|
| 1050–1300mg (12–18 years)       |
| 840–1000mg (19–50 years)        |
| 1100–1300mg (women 50+ years, men 70+) |

The lower figure is the Estimated Average Requirement (EAR) which meets the needs of half the population. The higher figure is the Recommended Dietary Intake (RDI) which meets the needs of nearly everyone (97–98% of the population).

It’s difficult to get enough calcium in your diet without dairy foods. Not only are the amounts of calcium lower, but the calcium from plant foods is not as well absorbed. Grains, vegetables, legumes, seeds and nuts contain calcium absorption inhibitors such as phytates, oxalic acid and tannins. Plant milks with added calcium are a good alternative.

**Sources of calcium**

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving size</th>
<th>Calcium (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tofu (calcium set)</td>
<td>100g/3½oz</td>
<td>336</td>
</tr>
<tr>
<td>Soy milk (calcium added)</td>
<td>1 cup (250ml/8fl.oz)</td>
<td>260</td>
</tr>
<tr>
<td>Canned pink salmon (with bones)</td>
<td>1 small can (90g/3oz)</td>
<td>260</td>
</tr>
<tr>
<td>School prawns, cooked, flesh only</td>
<td>¼ cup (100g/3½oz)</td>
<td>98</td>
</tr>
<tr>
<td>Oysters</td>
<td>½ dozen (100g/3½oz)</td>
<td>90</td>
</tr>
<tr>
<td>Spinach, cooked</td>
<td>½ cup (100g/3½oz)</td>
<td>78</td>
</tr>
<tr>
<td>Almonds</td>
<td>30g/1oz (small handful)</td>
<td>70</td>
</tr>
<tr>
<td>Tahini (sesame seed paste)</td>
<td>1 tablespoon (20g/⅓oz)</td>
<td>66</td>
</tr>
<tr>
<td>Bok choy (Chinese greens), cooked</td>
<td>½ cup (80g/2½oz)</td>
<td>42</td>
</tr>
<tr>
<td>Chickpeas, cooked</td>
<td>½ cup (80g/2½oz)</td>
<td>38</td>
</tr>
<tr>
<td>Orange</td>
<td>1 medium (130g/4½oz)</td>
<td>38</td>
</tr>
<tr>
<td>Broccoli, cooked</td>
<td>1 cup florets (80g/2½oz)</td>
<td>23</td>
</tr>
<tr>
<td>Lentils, cooked</td>
<td>½ cup (80g/2½oz)</td>
<td>10</td>
</tr>
<tr>
<td>Brussels sprouts, cooked</td>
<td>5 medium (100g/3½oz)</td>
<td>15</td>
</tr>
</tbody>
</table>

- Nicole Senior

A recent [analysis of global beverage consumption](https://example.com) suggests that the average person only consumes 135ml (a bit over half a cup) of milk each day, with consumption varying greatly amongst regions (highest in Central Latin America (250ml/day) and lowest in East Asia and Oceania (less than 60ml/day) suggesting that most of us are not having enough.
NEWS BRIEFS

The free-from-dairy milk bar

Gone are the days when the lactose intolerant had to opt for soy or rice milk. Zoom around the supermarket and you are spoiled for choice – regular, light, flavoured, and calcium enriched plant “milks” from numerous nuts and grains and even a fruit (coconut). It’s a growth industry. Plant “milks” from soy and grains are certainly top of the “avoid” hit list with paleo advocates along with “ditch the dairy”. They suggest replacing real milk (a good source of some vitamins and minerals that can be difficult to obtain from other foods) with nut milks and coconut milk. So how do the various plant “milks” match up?

What are the key ingredients in plant “milks”?

It’s important to read the label as a typical ingredients list can contain from 3 or 4 to 13 or 14 ingredients. Remember, ingredients are listed on a food label from the greatest to smallest amounts that have been added.

- Soy “milks” are water (about 85–90%) and ground whole soy beans or soy protein isolate powder.
- Nut “milks” (almond, cashew, hazelnut, macadamia) are water (about 97%) and ground nuts/nut pastes.
- Grain/seed “milks” (hemp, quinoa/chia, oats, rice) are water (about 85–90%) and a mix of flours and/or brans.
- Coconut “milk” is water (about 70%) and coconut cream/milk.

What else is in them? Food manufacturers add a number of ingredients and approved food additives to make them more nutritionally equivalent to cow’s milk, to provide a creamy mouth-feel and to make them tasty. We have put together this table to help you decode the ingredient list so you know what you are buying and can make an informed decision.

<table>
<thead>
<tr>
<th>What’s added?</th>
<th>Typical ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium (mineral salts)</td>
<td>Calcium carbonate (170), organic calcium, plant calcium, tricalcium phosphate (341), calcium phosphate (341), Aquamin (organic calcium)</td>
</tr>
<tr>
<td>Other mineral salts</td>
<td>Sodium bicarbonate (500)</td>
</tr>
<tr>
<td>Vitamins</td>
<td>Vitamin A, vitamin B1, B2, vitamin B12, vitamin D</td>
</tr>
<tr>
<td>Salt</td>
<td>Salt, sea salt</td>
</tr>
<tr>
<td>Sugars/sweeteners</td>
<td>Sugar (sucrose), barley malt, rice syrup, agave, maltodextrin</td>
</tr>
<tr>
<td>Oils</td>
<td>Sunflower oil</td>
</tr>
<tr>
<td>Food acids</td>
<td>332 (potassium citrate)</td>
</tr>
<tr>
<td>Vegetable gums</td>
<td>Gellan</td>
</tr>
<tr>
<td>Emulsifiers/stabilisers/thickeners</td>
<td>Lecithin, 339 (sodium phosphate), 407 (carrageenan) 412 (guar gum), 466 (sodium carboxymethylcellulose), 471 (mono- and di-glycerides of fatty acids</td>
</tr>
<tr>
<td>Flavours</td>
<td>Natural flavour</td>
</tr>
</tbody>
</table>

In a review of plant milks published in *The Conversation, Milking the Market: Are you pouring additives on your cereal?*, Suzie Ferrie concludes: “Unfortunately, unless they’re reading the packaging carefully, many consumers are probably being misled by the labelling of these alternative products as milk. What’s more, some are startlingly low on nutrition. The large amount of added water means that many of these products are quite dilute. Other than soy milk, none of the others have even a tenth of the protein in animal milks. If you adjust for the amount of added water by looking at their nutrition relative to calorie content (instead of just per 100ml as most labels show), then some of the nut products look a bit better ...Then, there’s added salt, which surprisingly seems to be a supplement to every nut milk product on the market. Calcium content is not comparable either, unless it has been added. Unfortunately, the form of calcium commonly used is not easily absorbed by the human body compared to what’s present in animal milks.”
Milks and plant milks - GI values from SUGiRS

<table>
<thead>
<tr>
<th>MILK OR PLANT MILK</th>
<th>GI</th>
<th>SERVING</th>
<th>AVAILABLE CARBS PER SERVE</th>
<th>GL PER SERVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow’s milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whole milk, 4% fat</td>
<td>27–34</td>
<td>1 cup/250ml</td>
<td>12g</td>
<td>4</td>
</tr>
<tr>
<td>Fat-reduced milk, 1–2% fat</td>
<td>20–30</td>
<td>1 cup/250ml</td>
<td>13–14g</td>
<td>4</td>
</tr>
<tr>
<td>Skim milk, less than 1% fat</td>
<td>20–34</td>
<td>1 cup/250ml</td>
<td>13–14g</td>
<td>4</td>
</tr>
<tr>
<td>Plant “milk”-soy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular soy milk (added calcium)</td>
<td>24–37</td>
<td>1 cup/250ml</td>
<td>13–15g</td>
<td>4–5</td>
</tr>
<tr>
<td>Light soy milk (added calcium)</td>
<td>34</td>
<td>1 cup/250ml</td>
<td>7g</td>
<td>2</td>
</tr>
<tr>
<td>Plant “milk”-grains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oat</td>
<td>69</td>
<td>1 cup/250ml</td>
<td>23g</td>
<td>16</td>
</tr>
<tr>
<td>Quinoa and chia seeds</td>
<td>42</td>
<td>1 cup/250ml</td>
<td>11g</td>
<td>5</td>
</tr>
<tr>
<td>Rice, regular</td>
<td>79</td>
<td>1 cup/250ml</td>
<td>24g</td>
<td>19</td>
</tr>
<tr>
<td>Rice, low fat</td>
<td>92</td>
<td>1 cup/250ml</td>
<td>34g</td>
<td>31</td>
</tr>
<tr>
<td>Plant “milk”- nuts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almond (unsweetened)</td>
<td>23</td>
<td>1 US cup/240ml</td>
<td>2g</td>
<td>0.5</td>
</tr>
</tbody>
</table>

About SUGiRS
Sydney University GI Research Service (SUGiRS) celebrates its 20th anniversary this year. It was established in 1995 to provide a reliable commercial GI testing laboratory for the food industry.

About GI testing
The GI value is determined following the international standard method by feeding 10 or more healthy people a portion of the test food containing 50 grams of available carbohydrate (total carbohydrate minus dietary fibre) and then measuring the effect on their blood glucose levels over the next two hours. For each person, the incremental area under their two-hour blood glucose response (glucose iAUC) for this food is then calculated. On another occasion, the same 10 people consume an equal-carbohydrate portion of glucose (the reference food) and their two-hour blood glucose response is also determined (the reference food is tested three times by each person). A GI value for the test food is then calculated for each person by dividing their glucose iAUC for the test food by their average glucose iAUC for the reference food. The final GI value for the test food is the average GI value for the 10 people.

Contact
For information about GI testing at the University of Sydney, email: Fiona Atkinson PhD, sugirs.manager@sydney.edu.au

Are plant “milks” really milk?
Not according to Australia and New Zealand Food Standards. “Milk means the mammary secretion of milking animals, obtained from one or more milkings for consumption as liquid milk or for further processing but excludes colostrum. Skim milk means milk from which milkfat has been removed.”
Can a high GI diet lead to depression?

A high GI diet is associated with an increased risk for new-onset depression in postmenopausal women, according to a study published in the *American Journal of Clinical Nutrition*. The investigators led by James Gangwisch of the Department of Psychiatry at Columbia University Medical Center, looked at the dietary glycemic index, glycemic load, types of carbohydrates consumed and depression in data from more than 70,000 postmenopausal women who participated in the National Institutes of Health’s Women’s Health Initiative Observational Study between 1994 and 1998. They found that progressively higher dietary GI scores and consumption of refined grains and added sugars were associated with increased risk of new-onset depression in post-menopausal women. Greater consumption of dietary fibre, whole grains, vegetables and non-juice fruits was associated with decreased risk. In their conclusion, they highlight the need to follow up their observational findings with randomized trials “to examine the question of whether diets rich in low GI carbs could serve as treatments and primary preventive measures for depression in postmenopausal women”.

What’s the best diet for a mum with gestational diabetes?

Gestational diabetes (GDM) is the most common medical problem encountered during pregnancy. As the cornerstone of managing it is modifying diet, all women with GDM should be given advice about diet and lifestyle changes. For most, managing their diet is all they need to do. “A carbohydrate-controlled diet evenly distributed throughout the day and with a predominance of low GI food choices is the ideal. Insulin or other medications will only be added if dietary changes and moderate physical activity are unable to keep your blood glucose levels in the target range” says Prof Jennie Brand-Miller in *The Bump to Baby Diet*.

As carb-rich foods are the foods that immediately affect blood glucose levels, carbohydrate restriction has been traditionally recommended. However, the evidence for this dietary advice is poorly substantiated says Teri Hernandez in *Diabetes Care*. In a small pilot randomized crossover study the researchers found that women with GDM could manage their blood glucose levels on a higher-complex carbohydrate (60%)/lower-fat (25%) diet just as well as they could on a higher fat (45%) restricted carbohydrate (40%) diet. The women with GDM taking part were carefully monitored and all food provided. The authors conclude that: “This diet strategy may have important implications for preventing macrosomia.”

“This is an interesting study” says Dr Alan Barclay. “It is well designed, but small (only 16 women) and of very short duration (3 days on each diet with a washout period of 3 days in between). It would have been ideal to have the mothers on the 2 diets for the remainder of their pregnancies to see what effect it had on their babies. Both diets were estimated to be low GI but as most US foods haven’t had their GI measured, this has to be very much a guesstimate. In addition, although the authors call it a high complex carb diet, at 18% of energy from sugars (in fruits, milk, yogurt etc) it’s not. It probably should just be called a high carbohydrate diet.”
Eggs: Is 2-a-day ok?

I like eggs. We have seven backyard chickens who lay about 12 eggs a week. The four of us enjoy their fresh and tasty produce once or twice a week, depending on whether we have omelettes for a quick and easy Friday dinner, or eggs and beans for a lazy Sunday lunch.

Eggs are a highly nutritious food of course, containing a significant amount of high biological value protein (around 6.5g in 1 large egg), and they are a good source of the vitamins B (B12, pantothenic acid, riboflavin, and folate), A, E and are one of the few food sources of vitamin D. They are also a relatively good source of the minerals iodine, iron, zinc and phosphorus, and are rich in omega-3 fatty acids (90 mg per egg). Eggs are also rich in cholesterol (176mg per small boiled egg) and are a source of saturated (1.35g per egg) poly- (0.45g per egg), and mono-unsaturated (1.9g per egg) fat.

The most recent American Diabetes Association nutrition therapy guidelines for adults with diabetes recommend people with diabetes eat less than 10% of energy from saturated fats and no more than 300mg of cholesterol a day. This is because people with type 2 diabetes commonly have abnormal blood fats (high levels of LDL cholesterol and low levels of HDL cholesterol), that increase their risk of cardiovascular disease (heart attack, stroke, peripheral vascular disease (feet)) and also microvascular disease (that affects the eyes and kidneys amongst other things).

In general, saturated fats raise total, LDL and HDL cholesterol to varying degrees, whereas most unsaturated fats lower LDL but raise HDL cholesterol levels. If high cholesterol foods are eaten along with a high saturated fat diet, blood cholesterol levels will rise an additional 10–20%. So the most effective way of improving blood cholesterol profiles is to eat less saturated fat and replace it with unsaturated fat or low GI carbohydrate but the amount of cholesterol you consume may still be of importance, depending on your overall dietary pattern.

A new randomised controlled trial in the American Journal of Clinical Nutrition shows, perhaps unsurprisingly, that people with type 2 diabetes can enjoy up to nearly 2 eggs (around 340mg of cholesterol) a day, as part of a healthy (low saturated fat, high unsaturated fat, low GI and high fibre) balanced diet, without adversely affecting their blood cholesterol, over a 3-month period.

Unfortunately, while we have very little information about what people with diabetes actually eat, what little we do have suggests that the typical person with diabetes rarely follows the dietary recommendations for people with diabetes, and in particular, most eat too much saturated fat (33% more than recommended).

If people with diabetes simply take home the message that it’s OK to eat 2 eggs per day, but don’t improve the quality of the rest of their diet, it may unfortunately have a negative impact on their blood cholesterol levels, increasing their risk of cardiovascular disease. Eggs aren’t eaten in isolation – it’s the overall dietary pattern that ultimately counts.

Alan Barclay PhD 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

The ubiquitous chickpea

I had a learned foodie friend who was obsessed with everything about chickpeas – we called her “professor chickpea”. Her passion was contagious and I grew to love them too, and there’s a lot to love about this humble food.

Peas or beans? Chickpeas are a legume, meaning the plant fixes nitrogen from small nodules on its roots. In culinary terms, legumes are also known as pulses and well known as very healthy foods. The chickpea is also known by other names such as garbanzo bean or Bengal gram. It is a very old food, having been cultivated for many thousands of years in the Middle East. There are three main varieties: desi that are small and dark in colour; Bombay that are also dark but larger; and kabuli that are paler, large and smooth skinned (and likely the type you’re familiar with). Chickpeas grow inside pale green pods, usually containing two peas (seeds). The biggest world producer is India, followed by Australia – I didn’t realise my own country was such a big producer!

Like other legumes/pulses, chickpeas are high in protein (6%) compared to grains, making them popular in vegetarian dishes and cuisines. They are rich in fibre, an excellent source of manganese and folate, and a good source of iron, phosphorous, copper and zinc. Another plus for chickpeas is their low glycemic index (39), and they’re gluten free and thus suitable for people with coeliac disease.

Dried chickpeas are an excellent store cupboard basic with a long shelf life of up to a year. To cook, soak chickpeas overnight before simmering in plenty of salted water until tender, usually about 1 hour (or quicker if you use a pressure cooker). At this point you can add them to cooked dishes or salads. If you cook a large amount, simply freeze the leftovers in meal size amounts ready to use another day. You could also use canned chickpeas for convenience but rinse and drain well to remove the canning liquid.

Very versatile Chickpeas are the chameleons of the food world, blending into the background in a smorgasbord of dishes. They’re great in curries, soups, stews and salads. They are probably most famously used to make hummus, a dip that is great with fresh vegetable sticks (crudités) and used as a sauce/topping in the popular Middle Eastern fast food, doner or falafel kebabs. You can find my recipe for hummus here. Falafel can be made with chickpeas, or fava beans, or both. Chickpeas are also a healthy, crunchy and more-ish snack when dry roasted, and available in bulk from Middle Eastern shops and nut roasters. Chickpea flour is called besan (or gram flour) and is popular in Indian, Pakistani, Bangledeshi and Nepali cuisine and is used to make pappadums, crunchy noodle snacks (sev, bhujia), fritters (bhaji, pakora), a batter for potato (bonda), a fermented batter breakfast food (dhokla), a thick gravy to serve with vegetable pakoras and yoghurt (kadhi). There are even Indian sweets called laddu, biscuit balls called besan nadoo, deep fried sweet called boondi and rich pudding made with ghee and sugar called Mysore pak.

Not so paleo Because chickpeas were not around when early humans were hunting and gathering the earth, chickpeas have been shunned by paleo-diet proponents. This is just one of the many reasons this diet (paleo) fails the test of a healthy diet you can stick with for wellbeing, longevity and sustainability. In a privileged world where the affluent can pick and choose which foods to eat and which to judge harshly by food fashion standards, it really is OK to be anti-fashion and shun paleo propaganda. This trend too shall pass. If paleo-inspo’ is standing between you and eating chickpeas, the scientific evidence is firmly in your favour: just say no to paleo.

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.
WHAT I EAT: SHADIA JAMMAL FROM SYRIA

Nicole Senior talks to Shadia Jammal, an Accredited Practicing Dietitian and nutritionist working in the food industry with a passion for gastronomy, nutrition and culture.

What is your cultural background? My background is Syrian and I’m proud of the wonderful ingredients and recipes in our cuisine. It is similar to that of other Middle Eastern or what’s called Levantine cuisines such as Lebanese, Jordanian and Iraqi. A typical day’s food in our culture consists of plenty of vegetables, legumes, grains, dairy and moderate amounts of meats and fish, and might look like this:

**Breakfast mezze** containing a mixture of small plates of labni (strained yoghurt), olives, hummus (chickpea and tahini dip), shanklish (soft cow or sheep milk cheese), ful medammas (similar to hummus but made from a mixture of whole and mashed fava beans, olive oil and garlic) and za’atar (a herb mix of oregano, thyme and sesame seeds) mixed with olive oil for dipping with Lebanese bread.

**Lunch and dinner** These two meals share common characteristics and may include:

- Freekeh (roasted green wheat) or basmati rice cooked with 7-spice mix, pine nuts, almonds and chicken or lamb.
- Mahshi: white zucchini/vine/cabbage leaves stuffed with rice and meat.
- Baked or grilled meat: kaftas or kibbeh; and falafel (fried ball of mashed chickpeas and/or fava beans) with a fatoush (green salad with flat bread pieces) or tabouli salad (parsley, bulgur and tomato) and garlic dip.
- Samke harra: spiced whole fish – often snapper - with sauces consisting of tahini, chilli, lemon, garlic and topped with pistachios.
- Mezze consisting of hummus, baba gahnouj (eggplant yoghurt dip), falafel, za’atar, tabouli and fatteh (salad of Lebanese bread pieces with various toppings that often chickpeas and tahini)

**Dessert and between meals** Fruit is normally consumed after meals or as a snack between meals. Nuts and seeds such as pistachios and pumpkin seeds are also eaten as a snack. Sweets are enjoyed on special occasions such as baklava, semolina cake, pancake stuffed with clotted cream or kinefi (sweet cheese pastry soaked in syrup). Beverages are normally tea, black brewed coffee and ayran (yoghurt drink)

What is your favourite dish? My favourite dish has to be a dish that my grandmother taught me how to make: shish barak – a yoghurt and garlic soup containing lamb mince and pine nut filled dumplings.

What are 3 ingredients this cuisine couldn’t do without? Syrian cuisine couldn’t do without 7-spice mix (baharat), olive oil and chickpeas.

Can you suggest a hero ingredient? Chickpeas are part of so many recipes whether used whole or hidden, for example as the main ingredient used in hummus, falafel, fatteh, soups and even used as a sweet snack in its candied form.

Dietitian Shadia Jammal is passionate about food and health. She has a Bachelor of Applied Science (Nutrition and Food) from the University of Western Sydney, Master of Nutrition and Dietetics and the University of Sydney, and Master Gastronomic Tourism from Le Cordon Bleu Australia.
Anneka Manning’s Family Baking

Baked custard with strawberries

Lusciously smooth, these delicious, individual custards are wonderful served with fresh fruit no matter what the season. Try strawberries in spring, raspberries in summer, pomegranate in autumn and mandarin segments in winter. This custard will keep covered in the fridge for up to 2 days.

Preparation time: 20 minutes (+30 minutes cooling and 1–2 hours chilling time)
Baking time: 25 minutes
Serves: 8

250g (8oz) fresh strawberries, hulled and thickly sliced, to serve

Baked Custard
500ml (2 cups) milk
1 vanilla bean, split lengthways and seeds scraped
2 eggs, at room temperature
1 egg yolk
¼ cup (55g/2 oz) caster sugar

Preheat oven to 160°C/315°F (140°C/280°F fan-forced). Place eight ⅓-cup (80ml) capacity ramekins in an ovenproof dish. • Combine the milk and vanilla bean and seeds in a medium saucepan and heat over low heat until almost simmering. Use a balloon whisk to whisk the eggs, egg yolk and sugar until well combined. Gradually whisk in the hot milk mixture. • Strain the custard into a jug and then divide evenly among the ovenproof dishes. Add enough boiling water to the roasting pan to reach half way up the sides of the dishes. • Bake in preheated oven for 25 minutes or until set on top but the custard still wobbles slightly when the ramekins are shaken gently. Remove from the oven and transfer the ramekins to a wire rack to cool for 30 minutes. Place the custard in the fridge for 1–2 hours or until cooled completely. • Serve the custards topped with the strawberries.

Per serve
395 kJ/95 calories; 4g protein; 4g fat (includes 2g saturated fat; saturated to unsaturated fat ratio 1.0); 10g available carbs (includes 10g sugars and 0g starch); 0g fibre; 45mg sodium

BakeClub founder Anneka Manning shares her delicious better-for-you recipes for snacks, desserts and treats the whole family will love. Through both her writing and cooking school, Anneka teaches home cooks to bake in practical and approachable yet inspiring ways that assure success in the kitchen. You can follow her on Twitter, Facebook or check out her website.
What's for dinner with Dr Joanna

Roast chicken with mung bean dhal stuffing

Thanks to my Mum for this idea of using mung bean dhal as a stuffing for chicken. It’s a delicious low GI twist to a traditional meal. Spoon any extra stuffing that doesn’t fit into the cavity of the chicken into a loaf pan and bake alongside the chicken. If mung beans are new to you, you’ll find them in the dried peas and beans section of the supermarket or in wholefood shops.

Serves 6.

1 whole free range chicken
1 lemon, juiced
Cracked black pepper, to season
2 large zucchini (courgettes), roughly chopped
6 medium squash, roughly chopped
3 large carrots, roughly chopped
2 medium beetroot, roughly chopped
2 cups broccoli florets
2 cups green beans
2 cups Brussels sprouts
1 tbsp chopped fresh coriander
1 tbsp chopped fresh parsley

**Mung bean dhal stuffing**

- 1 cup dried mung beans
- 2 cups (500ml) water
- Seasonings (¼ tsp turmeric, pinch ground cumin, cracked black pepper and salt to taste)
- 1 tsp extra virgin olive oil
- 1 onion, finely diced
- 1 clove garlic, crushed
- ½ red capsicum, diced
- ¼ yellow capsicum, diced
- 1 free range egg, beaten

To cook mung beans, place them in a saucepan with water and seasonings, bring to the boil and simmer for 30 minutes. Drain and set aside.

To make stuffing, heat olive oil in a frying pan, add the onion, garlic and diced capsicum and sauté until soft, then add to the mung bean mixture. Stir through the beaten egg to bind the mixture.

To prepare chicken, stuff cavity with the dhal, brush lemon juice over the skin and season with black pepper. • Cover the chicken in foil and bake in a roasting tray for 60 minutes at 180°C/350°F. • Once the chicken has been cooking for 1 hour, add the roughly chopped carrots, squash, zucchini, and beetroot and cook for a further 20 minutes under the foil. • Remove the foil to brown the chicken, toss the veggies and cook for a further 20 minutes.

To make the meal, steam the broccoli, green beans and Brussels sprouts. • Carve the chicken and serve with a scoop of stuffing and a generous ½ plate of roasted and steamed veggies. • Spoon over the pan juices as “gravy”, and top with freshly chopped coriander and parsley.

Tip: Press any leftover stuffing into a small loaf pan, cover with foil, and bake for 20 minutes or until done.

**Per serve**

- Energy: 1914kJ/455 cals; protein: 46g; fat: 23g (including 7g saturated fat; saturated to unsaturated fat ratio 0.4); available carbohydrate: 13g; fibre: 8g

Joanna McMillan PhD is a qualified dietitian and nutritionist. She is director of nutrition consultancy company Dr Joanna, and founder of Get Lean – the online healthy lifestyle system. She is a popular media spokesperson in Australia with regular TV and radio appearances, writes for several magazines and blogs, and has authored several books including *The Low GI Diet* (with Prof Jennie Brand-Miller). Joanna is a proud ambassador for Diabetes Australia and The Skin and Cancer Foundation. She is also a former fitness instructor and continuing exercise enthusiast which she juggles with being Mum to two very energetic boys. You can follow her on [Twitter](https://twitter.com), [Facebook](https://www.facebook.com) or check out her [website](https://www.getlean.com.au).
Bean me up Chrissy!

**Lentil bolognese**

Replacing half the meat in a bolognese sauce with lentils is a great way to up the veggie intake and cut the costs of the meal. You can replace the tinned lentils with 1½ cups cooked lentils. For a vegetarian version, omit the pork and double the quantity of lentils.

Preparation time: 15 minutes
Cooking time: 35 minutes

Serves 4

1 tbsp olive oil
1 onion, finely chopped
1 small carrot, peeled and finely chopped
1 celery stalk, finely chopped
1 small zucchini (courgette), trimmed and finely chopped
2 garlic cloves, crushed
2 tsp finely chopped rosemary
250g (9oz) minced (ground) pork
2 tbsp unsalted tomato paste (concentrated purée)
½ cup (125ml/4 fl. oz.) white wine
400g (14oz) can diced tomatoes
400g (14oz) can brown lentils, drained and rinsed
250g (9oz) wholemeal (whole-wheat) pasta, such as wholemeal spelt
Freshly grated parmesan cheese, to serve

Heat the olive oil in a large saucepan over medium heat. Add the onion, carrot and celery and cook, stirring, for 6–7 minutes or until softened. Add the zucchini, garlic and rosemary and cook, stirring, for 1 minute. Add the pork and cook, breaking up the meat with a wooden spoon, for 4–5 minutes or until browned. • Add the tomato paste and cook, stirring, for 1 minute. Add the wine and simmer until reduced by half. Add the tomatoes and ½ cup (80ml/2½ fl. oz.) water and bring to the boil. Reduce the heat to low and simmer for 10 minutes. Add the lentils and simmer for 10 minutes or until thick. Season to taste with sea salt and freshly ground black pepper. • Meanwhile, cook the pasta in a large saucepan of lightly salted boiling water according to the packet instructions or until al dente. Drain well, return to the pan with the sauce and toss until well combined. Divide the pasta between bowls and top with parmesan to serve.

Per serve
500 cals/2100 kJ; 29g protein; 15g fat (includes 4.5g saturated fat; saturated to unsaturated fat ratio = 0.39); 52g available carbs (includes 7g sugars and 45g starch); 12g fibre; 585mg sodium

Chrissy Freer, author of *Supergrains* and now *Superlegumes* (both published by Murdoch Books), creates delicious recipes with a holistic health focus. She has contributed to countless magazines and books as a recipe developer, nutrition writer, food editor, and stylist. You can find out more about Chrissy [here](#).
Building healthy bones to last a lifetime

In Food for Thought, we talk about the importance of calcium and how dairy foods like milk, yoghurt and cheese are an easy way to get the calcium you need each day for the healthy teeth and bones we need to last a lifetime. The 2007 Australian National Children's Nutrition and Physical Activity Survey, reported that 60% of children aged 9–16 were not meeting the Estimated Average Requirements (EAR) for calcium. More than 80% of girls aged 12–16 were not meeting the EAR for calcium which is an even bigger worry. So, how can we encourage children to have more dairy foods or calcium-enriched alternatives? One way is to include them at breakfast – yoghurt with fruit, milk with cereal or in a smoothie, or simply a glass of milk with a piece of fruit.

I know it can be hard with kids and breakfast and milk. So, as a backup, I tend to suggest a glass of low fat milk with Milo as an afternoon snack when I am feeling my two are low on the day’s calcium intake. Adding Milo is the only way my son will drink milk! And that tablespoon (20g) with its 160mg of calcium can boost the calcium content of the milk he drinks by nearly 70%. Of course, Milo works just as well with dairy alternatives like low GI soy milk (preferably fortified) if that’s what you have in your fridge. It’s a bit of a win-win: they think they are getting a treat and I’m definitely increasing their day’s calcium and mineral intake.

What’s MILO? It’s a malted barley extract that you add to hot or cold milk (or dairy alternatives) or water. It was developed in Australia in the 1930s and is now sold in about 40 countries. It’s not gluten free nor suitable for people with lactose intolerance. The ingredients are: Extract of malted barley, milk solid, sugar, cocoa vegetable oil [containing one or more of the following: palm oil, palm olein, coconut oil, palm kernel oil, whey, corn oil, soya oil] whey ACTIGEN-E [dicalcium phosphate, magnesium carbonate ascorbic acid, vitamin pp, ferric pyrophosphate, calcium-d-pantothenate, vitamin B6, vitamin B2, vitamin B1, D-biotin, vitamin B12, disodium phosphate, vanillin, maltodextrin.

New Australian products carrying the GI Symbol

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>GI</th>
<th>SERVING</th>
<th>AVAILABLE CARBS PER SERVE</th>
<th>GL PER SERVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried Turkish Apricots (Coles brand)</td>
<td>31</td>
<td>10 halves</td>
<td>16 grams</td>
<td>5</td>
</tr>
<tr>
<td>Low GI Harvest Grain Sandwich Loaf (Coles Bakery brand)</td>
<td>51</td>
<td>2 slices</td>
<td>38 grams</td>
<td>19</td>
</tr>
</tbody>
</table>

Look for the GI Symbol for better choices shopping for carbohydrate containing foods. Foods that carry the GI Symbol have had their glycemic index tested at an accredited laboratory, are low GI, and meet strict nutrient criteria for kilojoules, saturated fat and sodium, and where appropriate, fibre and calcium and are a healthy choice for their food group. If you have a product that you think may be eligible to carry the GI Symbol, email Dianna Crisp Communications and Partnership Manager at the Glycemic Index Foundation: info@gisymbol.com Website: www.gisymbol.com, Facebook, Twitter.
Q&A WITH JENNIE BRAND-MILLER

Are complex carbs and low GI carbs the same thing?

Before the GI came along, the nature of carbohydrates was described by their chemical structure: simple or complex. Sugars found in foods like honey, sugar itself, fruit, milk or yoghurt were simple and starches found in foods like beans, rice, pasta, bread and sweet potatoes were complex, only because sugars were small molecules and starches were big ones.

The next assumption was that these big complex starches would be slowly digested and absorbed and would therefore cause only a small and gradual rise in blood glucose levels. Simple sugars, on the other hand, because they were small, were assumed to be digested and absorbed quickly, producing a rapid increase in blood glucose. These untested assumptions were taught as science for many years.

What research on the glycemic index or GI showed is that the concept of simple versus complex carbohydrates tells us nothing about how the carbohydrates in food actually affect blood glucose levels in the body.

Dr David J. A. Jenkins and his colleagues set out to determine which foods were best for people with diabetes over thirty years ago. They actually measured in real people what happened to blood glucose levels when they consumed a range of everyday foods including breakfast cereals, fruit, milk, potatoes and rice for example. Their results published in March 1981 in the *American Journal of Clinical Nutrition* generated some surprises. First, they found that the starch in “complex carbs” such as bread, potatoes and many types of rice was digested and absorbed very quickly, not slowly, as had previously been assumed. Secondly, they found that the sugars in “simple carb” foods such as fruit, milk and ice-cream did not produce more rapid or prolonged rises in blood glucose, as had always been thought. Even high amounts of fibre (another form of carbohydrate) didn’t guarantee slow absorption.

The rise in blood glucose after meals cannot be predicted on the basis of a food’s chemical structure. In other words, the old distinctions that were long made between starchy and high fibre foods (complex carbohydrates) and sugary foods (simple carbohydrates) have no useful application when it comes to blood glucose levels – and all of the health issues that relate to them.

The GI ranks the ‘glycemic potency’ of the carbohydrates in different foods exactly as they are eaten. Many factors affect a food’s glycemic potency including the type of starch or sugars, whether it is a whole food or refined, cooking, the type of fibre, acidity, fat and protein.

A final point: You may be interested to learn that the World Health Organization recommended that we avoid using the term “complex carbohydrates” back in 1997.

**Glycemic Index of foods: A physiological basis for carbohydrate exchange.**

To determine the effect of different foods on the blood glucose, 62 commonly eaten foods and sugars were fed individually to groups of 5 to 10 healthy fasting volunteers. Blood glucose levels were measured over 2 h, and expressed as a percentage of the area under the glucose response curve when the same amount of carbohydrate was taken as glucose. The largest rises were seen with vegetables (70 +/- 5%), followed by breakfast cereals (65 +/- 5%), cereals and biscuits (60 +/- 3%), fruit (50 +/- 5%), dairy products (35 +/- 1%), and dried legumes (31 +/- 3%). A significant negative relationship was seen between fat (p less than 0.01) and protein (p less than 0.001) and postprandial glucose rise but not with fiber or sugar content.

-David Jenkins, Thomas Wolever ET AL.

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.