

## GI News—September 2011



- Beat your metabolic rate and burn your fat stores – Prof Jennie Brand-Miller explains
- Red meat and diabetes risk
- Green vegies, dried fruit, legumes and brown rice linked to fewer colon polyps
- The scoop on vitamin D with Emma Stirling
- New GI values for meal replacement shakes, soups and bars

Nicole Senior's new book, *Belly Busting for Blokes* landed on our desk recently, so we asked her to write about why a big belly is bad for your health for Myth Busting this month. (If you are interested, the book is a fun read and very practical and we have given copies to some of our favourite blokes who are finding it a bit harder to tie their shoelaces.) Prof Jennie Brand-Miller expands on the 'belly busting' theme and explains why controlling insulin levels is important for trimming your waistline and how low GI diet can help you beat your metabolic rate and burn your fat stores. There are all our usual features of course, including three delicious 'belly busting' low GI recipes to tuck into.

Good eating, good health and good reading.

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### Food for Thought

#### **Beat your metabolic rate and burn your fat stores – Prof Jennie Brand-Miller explains how**

Our genetic make-up underlies our metabolic rate – how many kilojoules (calories) we burn per minute. Bodies, like cars, differ in this regard. A bigger body like a bigger car requires more fuel to run than a smaller one. When a car is stationary, the engine idles – using just enough fuel to keep the motor running. When we are asleep, the 'revs' are even lower and we use a minimum number of kilojoules. Our resting metabolic rate (RMR) – the kilojoules we burn by just lying completely at rest – is fuelling our large brain, heart and other important organs. Although the number of kilojoules (the amount of fuel we use) increases when we exercise or move around, the greatest proportion of the kilojoules we use in a 24-hour period are those we use to maintain our RMR.

Since your RMR is where most kilojoules are used, it is a significant determinant of body weight. The lower your RMR is, the greater your risk of gaining weight – and vice versa. And here's where your genes come into the story as they determine whether you have a high or low RMR – it one of those things that does run in families. We all know someone who appears to eat like a horse but is positively thin. Almost in awe we comment on their fast metabolism, and we may not be far off the mark.

Men have a higher RMR than women because their bodies contain more muscle mass and are more expensive to run. Body fat, on the other hand, gets a free ride. These days, too many

men and women have undersized muscles that hardly ever get a workout. Increasing muscle mass with weight-bearing (resistance) exercise will raise your RMR and is one of the secrets to lifelong weight control.

Interestingly, we know that our genes dictate the fuel mix we burn in the fasting state (overnight). Some of us burn more carbohydrate and less fat even though the total energy used is the same. Scientists believe that subtle deficiencies in the ability to burn fat (as opposed to carbs) lie behind most states of being overweight and obese.

Indeed, in their latest research, if you have one copy of a high risk gene called FTO, geneticists have found you are 30 per cent more likely to become overweight. If you have two copies, then you are 67 per cent more likely! That is the strongest association yet of a common gene with obesity. Unfortunately, one in six people of European descent carry two copies and are therefore more prone to gain weight in the current environment.

This doesn't mean that if your genes are to blame you should resign yourself to being overweight too. But it may help you understand why you have to watch what you eat while other people don't. Furthermore, the current epidemic of overweight can't be blamed on our genes – our genes haven't mutated in a space of 25 years, but our environment has. So while genetics writes the code, environment presses the buttons. Our current sedentary lifestyles and food choices press all the wrong buttons!

If you were born with a tendency to be overweight, what you eat matters more. Genes can be switched on or off. By being choosy about carbohydrates and fats you will maximise your insulin sensitivity, up-regulate the genes involved in burning fat and down-regulate those involved in burning carbs. By moving your fuel 'currency exchange' from a 'carbohydrate economy' to a 'fat economy', you increase the opportunity of depleting fat stores over carbohydrate stores. This is exactly what will happen when you begin to eat a nutritious, low GI diet.

## **News Briefs**

### **Muscle up and reduce your risk of prediabetes**

A recent study published in the *Journal of Clinical Endocrinology & Metabolism* ([www.ncbi.nlm.nih.gov/pubmed/21778224](http://www.ncbi.nlm.nih.gov/pubmed/21778224)) shows that higher muscle mass (relative to body size) is associated with better insulin sensitivity and a lower risk of diabetes and prediabetes. Although previous studies have shown that very low muscle mass is a risk factor for insulin resistance, this is the first to show increasing muscle mass to average and above average levels, independent of obesity levels, would lead to improved BGLs. 'Our findings represent a departure from the usual focus of clinicians, and their patients, on just losing weight to improve metabolic health,' says senior author, Preethi Srikanthan. 'Instead, this research suggests a role for maintaining fitness and building muscle. This is a welcome message for many overweight patients who experience difficulty in achieving weight loss, as any effort to get moving and keep fit should be seen as laudable and contributing to metabolic change.'

### **Red meat and diabetes risk**

A study by Harvard researchers published in the *American Journal of Clinical Nutrition* ([www.ncbi.nlm.nih.gov/pubmed/21831992](http://www.ncbi.nlm.nih.gov/pubmed/21831992)) finds a strong association between the consumption of red meat – particularly when the meat is processed – and an increased risk of type 2 diabetes. The researchers found that, for an individual who eats one daily serving of

red meat, substituting one serving of nuts per day was associated with a 21% lower risk of type 2 diabetes; substituting low-fat dairy, a 17% lower risk; and substituting whole grains, a 23% lower risk. Based on these results, they advise that consumption of processed red meat like hot dogs, bacon, sausage, and deli meats, which generally have high levels of sodium and nitrites, should be minimised and unprocessed red meat should be reduced. If possible, they add, red meat should be replaced with healthier choices, such as nuts, wholegrains, low-fat dairy products, fish, or beans (legumes).

‘The evidence linking diets high in processed meats with risk of type 2 diabetes is very consistent’ says Dr Alan Barclay. ‘While a diet moderately high in protein has been proven to help with long term weight loss ([www.ncbi.nlm.nih.gov/pubmed/21591241](http://www.ncbi.nlm.nih.gov/pubmed/21591241)), the protein should come from a variety of plant and animal sources and processed meats should be limited to no more than one serve a week.’

### **Green vegies, dried fruit, legumes and brown rice linked to fewer colon polyps**

Eating legumes at least three times a week and brown rice at least once a week was linked to a reduced risk of colon polyps by 33% and 40% percent respectively according to the findings of a study in *Nutrition and Cancer* ([www.ncbi.nlm.nih.gov/pubmed/21547850](http://www.ncbi.nlm.nih.gov/pubmed/21547850)). The researchers also found that tucking into cooked green vegetables once every day or more (compared to less than 5 times a week) was associated with a 24% reduced risk; and having some dried fruit 3 times a week or more (compared with less than once a week) was associated with a 26% reduced risk. ‘Legumes, dried fruits, and brown rice all have a high fibre content known to dilute potential carcinogens,’ says lead author Dr Tantamango. ‘Additionally, cruciferous vegetables, such as broccoli, contain detoxifying compounds, which would improve their protective function.’

### **What's new?**

**# 1 Issue – Bees are in decline.** Bees are important for agriculture, the economy and the health of ecosystems and they are in decline. Without bees, it would be pretty hard and probably prohibitively expensive to eat that plant-based diet that’s so widely recommended as more than one-third of the world’s fruits, vegetables and flowering plants depend on pollination by bees. A timely, informative and beautifully written book new book, *The Beekeeper’s Lament* by Hannah Nordhaus, provides ‘an engaging account of the men and insects, who put food on our tables’ and the huge problems that they face today. Published by HarperCollins, it’s available from bookshops and Amazon ([www.amazon.com/Beekeepers-Lament-Billion-Honey-America/dp/006187325X](http://www.amazon.com/Beekeepers-Lament-Billion-Honey-America/dp/006187325X)).

**#2 Download –Diabetes UK** Evidence-based nutrition guidelines for the prevention and management of diabetes ([www.diabetes.org.uk/Professionals/Publications-reports-and-resources/Reports-statistics-and-case-studies/Reports/Evidence-based-nutrition-guidelines-for-the-prevention-and-management-of-diabetes-May-2011/](http://www.diabetes.org.uk/Professionals/Publications-reports-and-resources/Reports-statistics-and-case-studies/Reports/Evidence-based-nutrition-guidelines-for-the-prevention-and-management-of-diabetes-May-2011/)) These guidelines for healthcare professionals and people living with diabetes provide information about nutritional interventions that will assist in making appropriate food choices to reduce risk and improve glycemic control and quality of life.

**#3 Download –UK** National diet and nutrition survey ([www.food.gov.uk/multimedia/pdfs/publication/ndnsreport0809year1results.pdf](http://www.food.gov.uk/multimedia/pdfs/publication/ndnsreport0809year1results.pdf)). Findings suggest that the overall picture of the diet and nutrition of the UK population is broadly similar to previous surveys. Intakes of saturated fat and sugars remain above recommended levels.

#### **#4 Download – Energy density, portion size, and eating occasions: contributions to increased energy intake in the US, 1977–2006** published in *PLoS Medicine*

([www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1001050](http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1001050)) suggests that efforts to reduce obesity should focus on reducing the number of meals and snacks and portion sizes. The researchers examined US population and dietary data dating back to 1977 and found that average total daily energy intake increased from about 1803 calories in 1977–78 to 2374 calories in 2003–06, an increase of 571 calories a day.

#### **#5 Cookbook – Ian Thorpe’s Cook for Your Life**

In Ian Thorpe’s first cookbook, the Olympic Gold medallist and long-time GI supporter shares some of his favourite recipes as well as his philosophy on diet gleaned from experts in nutrition and performance. Although it’s what we’d call a ‘meaty’ book (chapters cover seafood, poultry, beef and kangaroo, lamb and pork) it’s good to see many low GI ingredients featuring such as beans and lentils, parsnips, pears, pearl barley, quinoa along with a chapter of vegetarian fare. The introduction is particularly fascinating as Ian describes how he has had to rethink the way he eats at different times in his life to keep in shape from being an elite athlete to when he stopped swimming competitively. Published by Hardie Grant and available from bookshops and the iBookstore

**GI Group:** Make your healthy eating pattern low GI and ‘cruise instead of spike and crash’ says Olympic swimming champion Ian Thorpe who generously donated his time to enable the GI Foundation to get the word out about quality carbs and a healthy low GI. The commercial provides a brief explanation of the GI and shows a range of typical high and low GI foods.

### **[Get the Scoop with Emma Stirling](#)**

#### **The scoop on vitamin D**

There’s been hot debate lately about the pros and cons of getting your little ray of sunshine. Nutritionists have long understood the importance of sunlight in helping people meet their vitamin D requirements. And we are learning more and more about the role of vitamin D in good bone health and beyond. However, that gorgeous, sun-bronzed image simply doesn’t fit with today’s knowledge on sun exposure and skin cancer risk. So how do you get the balance right?

**D for deficiency?** According to worldwide reports, including the *Medical Journal of Australia* ([www.mja.com.au/public/issues/177\\_03\\_050802/now10763\\_fm.html](http://www.mja.com.au/public/issues/177_03_050802/now10763_fm.html)), a significant number of people may be marginally vitamin D deficient. Plus there’s evidence that the incidence of vitamin D deficiency is increasing. Those at most risk of vitamin D deficiency include people confined indoors, especially the elderly in residential care and people who cover their skin for cultural or religious reasons. However, as more people work indoors, cover up and slather on sunscreen to avoid sun exposure, Vitamin D disorders may become more common again.

A major role of vitamin D is to assist calcium absorption from the foods you eat and build strong, healthy bones. However vitamin D may also play a role in immunity, cardiovascular health, insulin responsiveness and diabetes

([www.nature.com/ejcn/journal/vaop/ncurrent/abs/ejcn2011118a.html](http://www.nature.com/ejcn/journal/vaop/ncurrent/abs/ejcn2011118a.html)). And according to a recent review in the *European Journal of Clinical Nutrition* ([www.nature.com/ejcn/journal/vaop/ncurrent/full/ejcn2011105a.html](http://www.nature.com/ejcn/journal/vaop/ncurrent/full/ejcn2011105a.html)), good cohort studies in Scandinavia have shown a link between vitamin D supplementation in infancy and reduced risk of type I diabetes 30 years later.

**Getting your daily dose – food sources** Very few foods in nature contain vitamin D and dietary sources can help boost your status. Good sources in Australia include oily fish like sardines, mackerel, salmon and tuna, eggs, fortified margarines and milks, plus red meat. Wild mushrooms and those pulsed with UV light are also a good source. In other countries, more foods are fortified with vitamin D such as breakfast cereals. Recipes like this Fusilli with Salmon and Baby Spinach (<http://ginews.blogspot.com/2008/03/food-of-month.html> from Catherine Saxelby's *Zest* cookbook) is a great place to start and will be a winner with the whole family.

**Getting your daily dose – sunlight** Regular, indirect sun exposure remains the best way to get your vitamin D. Generally, experts suggest that 10–15 minutes of exposure on most days on the hands, face and arms should be enough. Specific recommendations differ by country and season, time of day, cloud coverage and the environment. Jump over to the Scoop on Nutrition ([www.scoopnutrition.com/2010/08/vitamin-d-debunked-our-essential-guide-to-getting-it-right-today-by-expert-frances-gilham-apd/](http://www.scoopnutrition.com/2010/08/vitamin-d-debunked-our-essential-guide-to-getting-it-right-today-by-expert-frances-gilham-apd/)) to read the guidelines for Australians and the International Osteoporosis Foundation position statement on vitamin D for older adults.

**Move it outdoors** So, make a point to move it outdoors a few times each week, as part of your recipe for healthy living. See your doctor if you are concerned about your vitamin D levels. Vitamin D levels can be checked with a simple blood test and your doctor will advise if a vitamin D supplement is necessary.

**Emma Stirling** is an Accredited Practising Dietitian and health writer with over ten years experience writing for major publications. She is editor of The Scoop on Nutrition ([www.scoopnutrition.com/](http://www.scoopnutrition.com/)) – a blog by expert dietitians. Check it out for hot news bites and a healthy serve of what's in flavour.

## [In the GI News Kitchen](#)

American dietitian and author of *Good Carbs, Bad Carbs*, **Johanna Burani**, shares favourite recipes with a low or moderate GI from her Italian kitchen. For more information, check out Johanna's website at [www.eatgoodcarbs.com](http://www.eatgoodcarbs.com). The photographs are by Sergio Burani. His food, travel and wine photography website is [photosbysergio.com](http://photosbysergio.com).

### **Fresh nectarines with port wine drizzle**

Late summer fruit and wine is a culinary marriage made, if not in heaven, certainly in most Italian kitchens. This recipe uses a dessert port wine but other good fruity red wine choices might be Merlot, Valpolicella or Zinfandel. Sometimes when friends stop over for a late afternoon visit to our Friuli home, I'll prepare the fruit I have on hand in this way and serve it with nut-based biscotti. This is a light, healthful, summery treat that will not interfere with the evening meal. Serves 4 (2 halves each)

4 medium nectarines, halved and pitted

4 teaspoons port wine  
1 teaspoon vanilla  
8 almonds, dry roasted, chopped

**Drop** the nectarine halves in boiling water and leave for 2 minutes. Remove the fruit with a slotted spoon and cool under running water. Gently peel back the skin with a knife. Place 2 nectarine halves each on 4 individual dessert plates. Set aside.

**In an espresso cup** mix the wine and vanilla. Drizzle evenly over the nectarines. Sprinkle with the almonds. Chill slightly before serving.

Per serve

Energy: 690kJ/90cals; Protein 2g; Fat 2g (includes 0g saturated fat); Available carbohydrate 16g; Fibre 3g

Cut back on the food bills and enjoy fresh-tasting, easily prepared, seasonal, satisfying and delicious low or moderate GI meals that don't compromise on quality and flavour one little bit with this **Money Saving Meals** recipe from Nicole Senior and Veronica Cuskelly's *Belly Busting for Blokes*. For more recipes check out the Money Saving Meals website ([www.moneysavingmeals.com.au](http://www.moneysavingmeals.com.au)).

### **Spicy beef and bean chilli**

You can serve this one-pot classic a number of ways. If you like to start from scratch (and save a few cents), soak dried kidney beans overnight and cook in lots of boiling water (don't add any salt)—they'll take about an hour. If you make extra, you can freeze them too. White corn tortillas have a low GI (53) Makes 2 hearty serves, but we found it easily stretches to 3 serves accompanied by a big garden salad.

400g (14oz) can kidney beans, rinsed and drained  
1 tbsp oil  
1 large red onion, finely chopped  
1 large red capsicum, finely chopped  
2 tsp Mexican chilli powder  
1 tsp sweet paprika  
300g (10½oz) lean beef mince  
400g (14oz) can diced tomatoes  
¼ cup chopped flat-leaf parsley  
2 white corn tortillas (soft)

### **COOK**

Heat the oil in a non-stick medium-sized saucepan over a low-to-medium heat. Add onion, capsicum, chilli powder and paprika and cook, stirring, until the vegetables are soft. Don't rush it – this may take about 10 minutes and will really develop the flavours. Add the mince and cook, stirring, for 5 minutes to break up the mince. Stir in the beans and tomatoes and when hot reduce the heat to low, cover and cook for 15 minutes. Remove from the heat and mix in the parsley.

### **SERVE**

Spoon the chilli into 2 warmed bowls (or a large bowl for scooping and sharing) and serve in a soft corn tortilla wrap with salad.

Per serve (based on 2 hearty 'bloke' serves)

Energy: 2635 kJ/ 630 cal; Protein 49 g; Fat 22 g (includes 6 g saturated fat); Available carbohydrate 50 g; Fibre 17 g

Per serve (based on 3 serves)

Energy: 1756 kJ/ 420 cal; Protein 32 g; Fat 14 g (includes 4 g saturated fat); Available carbohydrate 33 g; Fibre 11 g

### **Baked salmon with mixed bean salsa**

This low GI meal from *The Low GI Diet Cookbook* (available from bookshops and Amazon) provides a deliciously tasty source of vitamin D (and omega-3, too). Keep it light and easy and serve it with a leafy mixed salad or with cooked green vegetables such as broccoli, asparagus or spinach. Serves 4

4 salmon fillets (about 150g/5oz each)

1 lemon, squeezed

Bunch coriander, leaves picked

Freshly ground black pepper

#### ***Mixed bean salsa***

440g/15oz can four-bean mix, rinsed and drained

1 tbsp chopped black olives

6 sun-dried tomatoes, chopped

1 red chilli, deseeded and chopped

1 small red onion, finely chopped

1 tbsp olive oil

2 tsp balsamic vinegar

**Preheat** the oven to 180C/350F. Put the salmon fillets in an ovenproof dish, squeeze over the lemon juice, sprinkle over half the coriander leaves and season with freshly ground black pepper. Cover with foil and bake until done to your liking (about 15 minutes for rare to 30 minutes for well done).

**Make** the mixed bean salsa by combining all the ingredients in a bowl. Add the remaining coriander leaves and mix well.

**Place** a salmon fillet on each plate and top with a generous spoonful of bean salsa and serve with plenty of green vegies.

Per serve (fish and salsa)

Energy: 1950kJ/ 460 cal; Protein 45g; Fat 24g (includes 5g saturated fat); Available carbohydrate 26g; Fibre 6g

## **[Busting Food Myths with Nicole Senior](#)**

**Myth:** *A big belly isn't that bad*

**Fact:** *A big belly – while very common, especially in men – is bad news for your health.*

There are a lot of folks struggling to wrap their arms around their special someone, and a lot of special someones struggling to tie their own shoelaces because of a big belly. These some ones are mostly blokes because using the belly as an energy storage tank is what the male body does naturally. After the menopause, women change to a more 'apple' shape as well, but it's the blokes who need the most help. While women seem to constantly think about their

weight and body shape, it's the blokes who need a bit of encouragement to see their growing girth might be a problem.

And a problem it is. A big belly is also called 'abdominal obesity', and the fat stored there is also called 'visceral fat'. It is this belly-fat that increases the risk of high cholesterol, high blood pressure, high triglycerides, high blood glucose, cardiovascular disease, type 2 diabetes and pre-diabetes, metabolic syndrome and fatty liver. Not to mention erectile dysfunction, low testosterone levels and poor sperm quality. And it's hard to look tidy in clothes, or find clothes that fit. Psychologically speaking, it's a downer when people ask 'when is the baby due?', or when blokes can't keep up with the kids, or can't do the things they used to do with ease. There's nothing good about a big belly.

Many fad diets promise the world and deliver little, leaving a trail of nutritional and psychological 'collateral damage', but what blokes really need is sensible advice to get them on their way. They need straight-talking, no-nonsense information which helps correct the food knowledge and skills gap. While things are gradually changing, men are at a disadvantage with food because they tend to be less engaged with it. They've always left it to their mother, partner, or increasingly to the food industry: they have outsourced their food. And this is where the trouble lies: leaving food to everyone else means they have lost control over what they eat. While ancient man was a champion hunter and gatherer, contemporary man can be hopeless at feeding himself in a healthy way. Blokes need to learn more about food and conquer the kitchen to bust their belly.

In my experience it's a lot easier for blokes to bust their belly than women. They're less emotionally tied up with food and just get on with it: you tell them what to do and they do it. But of course in order to take action they have to appreciate there is a problem and male bravado is a barrier here. It's tough for blokes to admit the fattening world has beaten them, especially if they're doing so well at other aspects of life (and blokes can be competitive). Rather than punching their swollen belly saying 'it's all muscle' and laughing it off, more blokes need to admit they're worried and decide to take action. This will give other blokes permission to do the same. Blokes need to shake off their 'threatened species' status and pick up their cutlery for the good food revolution rather than digging their grave with a knife and fork. They simply won't believe how much better they feel with a smaller belly.

***Belly busting for blokes*** (New Holland) is Nicole's new book of sensible and practical advice with Veronica Cuskelly's simple, easy and tasty recipes (featuring the hunger-busting power of protein and lower GI carbs). Check out [www.bellybusting.com.au](http://www.bellybusting.com.au)

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

### **What's missing from traffic light labelling?**

Like many countries, Australia is in the midst of an overweight/obesity epidemic and this in turn is creating an epidemic of diet-related chronic diseases, most notably type 2 diabetes and cardiovascular disease (heart disease and stroke). Australian Government policy guidelines around food labelling

([www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/Content/BFB4ACD9B215DEBFCA2576AF000E7C34/\\$File/Food%20Labelling%20Policy%20and%20Law%20Review%20-%20Issues%20Consultaton%20Paper.pdf](http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/Content/BFB4ACD9B215DEBFCA2576AF000E7C34/$File/Food%20Labelling%20Policy%20and%20Law%20Review%20-%20Issues%20Consultaton%20Paper.pdf)) have "agreed to tackle the burden of chronic disease".

Although there is general agreement these days that excessive total energy intake relative to energy expenditure is the primary dietary factor contributing to overweight/obesity, the debate still rages in the scientific community about the specific contribution of macronutrients like fat, carbohydrate and alcohol.

Some well-intentioned Australian public health and consumer organisations are keen to see traffic light labelling on all Australian packaged foods, despite most other nations moving away from this particular front-of-pack labelling scheme. Choice ([www.choice.com.au/reviews-and-tests/food-and-health/food-and-drink/groceries/muesli-review-and-compare/page/compare-results.aspx](http://www.choice.com.au/reviews-and-tests/food-and-health/food-and-drink/groceries/muesli-review-and-compare/page/compare-results.aspx)), for example, recently used their model for traffic light labels to judge a range of mueslis for their fat, saturated fat, sugar and sodium content.

Here at *GI News* we are as keen as anyone else to give consumers a simple way to make better choices in the supermarket that will help them achieve and maintain a healthier weight. However, we don't believe that the current traffic light labelling systems are the better buying magic bullet. Here's why.

The first and most obvious flaw with traffic light schemes is that they generally don't include kilojoules/calories (that's the total energy in 100 grams of food). Given that the general aim of traffic light labelling is to help in the fight against obesity, this omission seems almost inexplicable. When pushed on this, most traffic light advocates will say that most consumers don't understand kilojoule/calories. However, if there is this gap in consumer understanding, then surely what we should be doing is helping people understand kilojoules/calories and how to use them, rather than omit them from front-of-pack labelling schemes. A side effect of leaving them off, also suggests they don't matter as much as fat, sugar and salt ...

Secondly, while most traffic light labelling schemes include total fat and sodium, they only generally include half of the carbohydrates in the serving – that old bogey sugars. However, people with diabetes and those at risk need to know how much total carbohydrate a food contains – the starch as well as the the sugar. And of course if we were really serious about front-of-pack labelling helping in the prevention and management of diabetes (and obesity), we would also incorporate GI, as there is very strong (as in level 1) evidence (e.g., [www2.cochrane.org/reviews/en/ab005105.html](http://www2.cochrane.org/reviews/en/ab005105.html)) that a low GI diet will help with both.

Thirdly, traffic light labelling schemes tend to focus on total sugars – not added sugars (the Choice critique of the mueslis for example, gives healthy products containing dried fruit a red 'sugar' traffic light. Some healthy foods like dried fruit (which our dietary guidelines say can contribute to your 2 serves a fruit a day) naturally contain sugars. What you have to watch with these foods is the portion size because they are energy dense, and this is where those kilojoules/calories have a key role to play.



Illustration courtesy Australian Food and Grocery Council – August 2011

Any front of pack labelling scheme needs to focus on both the positive and negative attributes of food if it's going to truly help consumers make a balanced assessment of a product. If a front-of-pack labelling scheme is not entirely evidence based but instead focuses on the bogey nutrients of the day we can be sure that they will encourage food industry to reformulate their foods and drinks to avoid the dreaded red spot, but this may have the unfortunate side effect of increasing rates of overweight/obesity and type 2 diabetes if the Australian sugar paradox ([www.mdpi.com/2072-6643/3/4/491](http://www.mdpi.com/2072-6643/3/4/491)) is anything to go by.



### **For more information about the GI Symbol Program**

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### **GI Update**

#### **Prof Jennie Brand-Miller answers your questions**

*Can you explain to me why controlling your insulin levels is important for trimming inches off your waistline?*

Controlling insulin levels is the name of the game when it comes to being able to tighten your belt a notch to two because insulin is a leading player in the fat storage game deciding whether you burn fat or carbohydrate to meet your energy needs. It does this by switching muscle cells from fat-burning to carb-burning.

For example, if your insulin levels are low, as they are when you wake up in the morning, then the fuel you burn is mainly fat. If your insulin levels are high, as they are after you consume a high carb meal, then the fuel you burn is mainly carbohydrate. However, if the carbs you eat are healthy low GI ones, then the pancreas doesn't have to work as hard, it shoots out less insulin to manage your blood glucose levels and you burn more fat.

Why don't we just ditch the carbs altogether? Well, reducing carbs doesn't have the same benefits as swapping high GI for low GI carbs. Low carb meals don't have desirable flow-on effects to the next meal. They don't improve the health and function of the beta cell as low GI carbs do. And finally, low carb diets don't improve blood fat levels over the long term. What's more, it's much easier for you (mentally and physically) to swap one carb source for another rather than banish them entirely from your diet. Most dieters who've lost weight on low carb diets join the yo-yo brigade (the yo-yo method of girth control).

### **New GI Values for meal replacement products from SUGiRS**

SUGiRS tested the dry powder products with water following the manufacturers' instructions.

#### **Achievit**

VLED Shake (Chocolate, Vanilla, Strawberry and Caffe Latte flavours) GI 22 – 17g available carbs per serving

VLED Soup (Creamy Chicken or Cream of Tomato and Veg) GI 20 – 17g available carbs per serving)

#### **Tony Ferguson**

Apricot Munch Bar GI 51 – 26g available carbs per serving (60g bar)

Berry Munch Bar 43g – 28g available carbs per serving (60g bar)

Crème of Chicken Soup GI 26 – 31g available carbs per serving

1 can (375ml) Chocolate Ready-to-Drink Shake GI 20 – 29g available carbs per serving

1 can (375ml) Espresso Ready-to-Drink Shake GI 20 – 31g available carbs per serving

Roast Pumpkin Soup GI 27 – 29g available carbs per serving

Chocolate Shake GI 22 – 29g available carbs per serving

Espresso Shake GI 22 – 30g available carbs per serving

Café Latte Shake GI 22 – 30g available carbs per serving