

GI News—October 2009



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‘People are always looking for healthy ways to eat and lose weight and a cookbook club is a great way to do both,’ suggests GI News subscriber, Darlene from Arizona. ‘It has been fun for us to come together every week to try new things and it has opened up new ways of combining good foods with recipes that are easy to make and affordable. Here’s how we started our Cookbook Club. I purchased a copy of [*Glycemic Index Cooking Made Easy*](#) a few months ago to lose weight and try new foods – especially vegetables that I am a stranger to. I brought the cookbook to the office and it received so much interest that several of us joined together to take turns preparing a recipe to share. We discuss the recipe and make notes in the cookbook. There are approximately ten of us now and we meet every Wednesday.

At our recent Cookbook Club lunch I tried a dish that contained tuna. I have not had tuna in 30 years and it was very good recipe. Comments from our club regarding the recipes have been – “inexpensive”, “easy”, “great for potluck” and “I would never have thought to mix this or that into a salad but it works very well and I will definitely make it again.” You asked about our favorites so far? All the recipes we have tried so far are favorites! We visit your website and obtain helpful information from your newsletters and share it with the group.’

Good eating, good health and good reading.

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Food for Thought

Off the couch and into the kitchen

In a typically thought provoking piece in the *New York Times* magazine, 'Out of the Kitchen, onto the Couch', Michael Pollan writes: '...here's what I don't get: How is it that we are so eager to watch other people browning beef cubes on screen but so much less eager to brown them ourselves? For the rise of Julia Child as a figure of cultural consequence – along with Alice Waters and Mario Batali and Martha Stewart and Emeril Lagasse and whoever is crowned the next Food Network star – has, paradoxically, coincided with the rise of fast food, home-meal replacements and the decline and fall of everyday home cooking ...

Today the average American spends a mere 27 minutes a day on food preparation (another four minutes cleaning up); that's less than half the time that we spent cooking and cleaning up when Julia arrived on our television screens. It's also less than half the time it takes to watch a single episode of "Top Chef" or "Chopped" or "The Next Food Network Star." What this suggests is that a great many Americans are spending considerably more time watching images of cooking on television than they are cooking themselves – an increasingly archaic activity they will tell you they no longer have the time for.

Cooking's fate may be to join some of our other weekend exercises in recreational atavism: camping and gardening and hunting and riding on horseback. Something in us apparently likes to be reminded of our distant origins every now and then and to celebrate whatever rough skills for contending with the natural world might survive in us, beneath the thin crust of 21st-century civilization.

But to relegate the activity of cooking to a form of play, something that happens just on weekends or mostly on television, seems much more consequential. The fact is that not cooking may well be deleterious to our health, and there is reason to believe that the outsourcing of food preparation to corporations and 16-year-olds has already taken a toll on our physical and psychological well-being.' Read the whole article [HERE](#).

News Briefs

Does organic food have more nutrients? Glenn Cardwell comments on a UK study.

A report published in the [*American Journal of Clinical Nutrition*](#) came to the conclusion that organically grown produce and livestock had a similar nutrient offering to conventionally grown food. The reviewers trawled all the research for the past 50 years and found only 55 good quality research studies comparing organic and conventionally grown

food, many conducted this century. The comparison did not include pesticide residue or the environmental impact.



In many cases, it won't matter how you dress up organic produce because most people won't be prepared to pay the premium price. The other critical factor is that less than one in ten adults eat enough fruit and vegetables to be good for them. Most adults need to double their vegetable intake to get the benefits they provide, before they start to wonder whether they should go organic or not.

Fresh produce in Australia is tested for pesticide residues. Most farmers will ensure that they meet the withholding times to ensure they are below the Maximum Residue Limits for pesticides, which are set by international scientific agreement. A lot of fresh produce has no detectable pesticide or herbicide residue at the point of sale. All the same, this will not appease many people who prefer no pesticides to be used in the first place (and if they weren't used then fruit and vegetables will be a lot more expensive than they are now).

If you can afford it, and you eat plenty of organic produce, then keep buying it. Many of you already are, as the organic market is rapidly growing. It sends a message that you prefer food that is a little more gentle on the environment. For those of us with plenty of mouths to feed and a modest budget, then feel comfortable eating good quality conventionally grown food, as the nutrient levels are very similar to organic produce. Remember that how you look after fresh produce after it has been bought will have the greatest impact on its nutrient content. Eat fresh food as soon as you can after purchase to get the most nutrients from your meal.

For good health we need carbohydrates

'Carbohydrates have been and will continue to be an essential part of any human dietary requirement for hundreds of years, unless a fundamental mutation occurs,' says Christian

Nordqvist in [Medical News Today](#).

‘The obesity explosion in most industrialized countries, and many developing countries, is a result of several contributory factors. One could easily argue for or against higher or lower carbohydrate intake, and give compelling examples, and convince most people either way. However, some factors have been present throughout the obesity explosion and should not be ignored: Less physical activity, fewer hours sleep each night, higher consumption of junk food, higher consumption of food additives, coloring, taste enhancers, artificial emulsifiers, etc, more abstract mental stress due to work, mortgages, and other modern lifestyle factors.

In rapidly developing countries, such as China, India, Brazil, Mexico, obesity is rising as people’s standards of living are changing. However, for their leaner nationals of a few decades ago carbohydrates made up a much higher proportion of their diets. Those leaner people also consumed much less junk food, moved around more, tended to consume more natural foods, and slept more hours each night. Saying that a country’s body weight problem is due to too much or too little of just one food component is too simplistic – it is a bit like saying that traffic problems in our cities are caused by badly synchronized traffic lights and nothing else.

It is true that many carbohydrates present in processed foods and drinks we consume tend to spike glucose and subsequently insulin production, and leave you hungry sooner than natural foods would. The Mediterranean diet of the people in Greece or the island of Corfu, with an abundance of carbohydrates from low GI sources (think pasta, or legumes) plus a normal amount of animal/fish protein, have a much lower impact on insulin requirements and subsequent health problems, compared to any other widespread western diet. Dramatically fluctuating insulin and blood glucose levels can have a long term effect on your eventual risk of developing obesity, type 2 diabetes, heart disease, and other conditions. However, for good health we do require carbohydrates. Carbohydrates that come from natural unprocessed foods, such as fruit, vegetables, legumes, whole grains, and some cereals also contain essential vitamins, minerals, fiber and key phytonutrients.’

High meat diets may increase the risk of diabetes

Eating more than 120 g (4 oz) a day of red meat, or more than 50 g (1½ oz) a day of processed meat like hamburgers, frankfurter sausages and bacon, may lead to a greater risk of developing type 2 diabetes according to a study published in [Diabetologia](#) that summarised data from 12 studies from around the globe.

Red meat intake was investigated in 10 of the 12 studies and included a total of 12,226 cases of type 2 diabetes from a total of 433,070 participants. There was a 21% increase in

the risk of type 2 diabetes for those with the highest compared to the lowest red meat intake. The results of this study are consistent with previous findings of a 35–50% lower risk of type 2 diabetes among vegetarians compared with omnivores.

There are various possible explanations for these findings including the high total and saturated fat content of many red and processed meats which may increase the risk of being overweight or obese; the fact that they are rich in haem-iron which may interfere with glucose metabolism; and the presence of nitrites and nitrates in processed meats which can be converted to nitrosamines which in turn may have toxic effects on the insulin-producing pancreatic beta-cells.

‘The key message from this study,’ says Dr Alan Barclay, ‘is that eating large quantities of red meat, and processed meat, is not necessarily good for your health. Diabetes is a serious condition for the individual and society. Its rapidly increasing global prevalence is a significant cause for concern. It’s currently estimated that around 246 million people worldwide have type 2 diabetes and this figure is expected to rise to 380 million by 2025. The evidence is piling up that high meat diets are not the solution for healthy people or a healthy planet. A moderate consumption of red meat (65–100 g/2–3½ oz of cooked meat), fish (80–120 g/2½–4 oz, cooked), or vegetarian alternatives such as beans, lentils or chickpeas (½ a cup, cooked) each day, is sufficient for most of us and we should limit eating processed meats to just once a week.’

Plate Smash!

‘I believe most people would like to eat the right amount, if only they knew what that was. My new [Plate Smash Game](#) makes you stop and think about how many calories you are putting on your plate for one meal,’ says dietitian Amanda Clark. ‘Go over the right amount and your plate will smash!’



Foodwatch with Catherine Saxelby

Tomatoes are tops in any healthy diet

Cherry, egg, vine-ripened, ox-heart or teardrop; raw, grilled, oven-roasted or sun-dried; canned, bottled or in paste form – whichever way you eat them, tomatoes are a versatile ingredient of any healthy diet and a top super food. In terms of consumption, they are our second favourite vegetable after potatoes. Much of our intake is from canned whole tomatoes, tomato pasta sauces, tomato paste, tomato juice (GI 38), canned tomato soup (GI 38) and sun dried/semi dried tomatoes. And of course there's that barbecue icon, tomato sauce or ketchup.

As with most veggies, you can tuck into them without thinking about their GI. They are so low in carbohydrate that they have no measurable effect on your blood glucose levels, but they do provide you with some fibre, vitamins, minerals and lots of lycopene, all for a mere 73 kilojoules (17 calories) in a medium-size tomato.

What's lycopene? It's a powerful antioxidant which has been shown to reduce the risk of cancer of the prostate and possibly cancer of the colon, bladder and lungs. Several studies have found that men who have the highest intakes of lycopene from tomato-based foods had a much lower risk of prostate cancer. And it appears to protect white blood cells, our body's first line of defence against infection. Interestingly processed tomato products – sauces, soups and juices – provide the most lycopene. Cooking and processing softens the tough cell walls of the tomato and increases the availability of the lycopene.

Tomatoes are sometimes avoided by arthritis sufferers, along with other members of the nightshade family like capsicum and eggplant. Reasons given are that they are too 'acid' or cause a flare-up of swollen joints or stiffness. But it could really be due to their high natural treasure chest. Along with their flavour, tomatoes contain high levels of salicylates, amines and glutamates, three natural compounds that are often the villains in migraines, digestive upsets and other allergic-type reactions collectively called food sensitivity. As with other culprit foods, it seems if a food consistently causes problems for someone, then it's best to avoid it (and it's estimated that around 30% of arthritis sufferers have some sort of food intolerance). At this stage, however, there's not enough evidence to ban tomatoes for everyone with arthritis.

Tips to add more tomatoes to your diet:

- Add sliced tomato to your sandwiches or melts – it's a perfect partner to cheese or ham (add a little Dijon mustard as well).

- Oven-roast Roma tomatoes and stir through a barley risotto with basil, mushrooms and little parmesan. Or just serve them on toast!
- Throw 1 cup of cherry or grape baby tomatoes through a salad. Or use red ripe ones as the basis of that ever-popular Greek salad with steak or chicken.

Why not make your own **Salsa di Pomodoro**? This recipe is from Mary Taylor Simeti's *Sicilian Food* – a delightful book on the food, traditions and recipes of Sicily that's full of authentic recipes from the author's family and friends on the island.

Ingredients: 1¾ kg (4 lb) fresh very ripe tomatoes, 1 medium onion, 4 sprigs parsley, ¼ cup olive oil, salt, sugar (optional)

Method: Wash the tomatoes and remove the stems, which if cooked would make the sauce bitter. Place the tomatoes in a saucepan with just enough water to barely cover the bottom of the pan, cover, and bring to the boil over a medium low flame. Simmer for 5 minutes, then drain well and cool slightly before passing through a food mill. Discard skin and seeds. Mince the onion and the parsley, and sauté in the oil. When the onion begins to turn golden, add the tomato puree. Simmer for 15 to 20 minutes, season to taste with a little salt, and if the sauce seems too acid, add a pinch of sugar. Makes approximately 3½ cups sauce.

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](#). The photographs are by Sergio Burani. His food, travel and wine photography website is [HERE](#).

Frittata with fresh herbs

A frittata is an open-faced omelet. Italian cooks usually welcome in springtime with a recipe like this one because the herbs in their gardens are lush enough to start snipping at their sprigs and leaves. When I'm not in my Italian home, I'm a city girl, with nothing more than a few potted herbs and tomato plants on my deck. In early fall, before the cold sets in, I start cooking with whatever herbs I still have growing. The beauty of this recipe is that you can choose whatever herbs you may have at arm's length and your frittata will be as sumptuous as this one. I try to include at least three different herbs. When I make this, we have our 'primo piatto' first, which is pasta so I just serve it with a hearty salad. If you are making a meal of the frittata, serve it with some low GI bread too if you wish. Serves 2



3 eggs

½ cup egg substitute or 2 extra egg whites

2 tablespoons thinly sliced fresh chives

2 heaping tablespoons fresh thyme leaves, stems removed

2 heaping tablespoons minced fresh, flat leaf parsley, minced

¼ cup fresh basil leaves, ripped into tiny pieces

Salt and freshly ground pepper to taste

vegetable oil spray

1 teaspoon extra virgin olive oil

- Place the eggs, egg substitute or extra egg white, the herbs and the salt and pepper in a medium sized bowl. Whisk until all the ingredients are blended.
- Cover the bottom of a 10-inch (25 cm) frying pan with vegetable spray. Heat over a medium flame. Add the olive oil and, when it is warmed, add the egg-herb mixture.
- Cook the frittata for 5–6 minutes, using a spatula to lift the edges away from the pan. When the bottom looks cooked, use the spatula or a flat cover or plate to flip it over to the other side and continue cooking for another 2 minutes. Serve immediately or at room temperature with a salad. The combined flavors of the herbs are even more pronounced the following day if you have leftovers.

Per serving (without bread or salad)

Energy: 370 kJ/ 201 cal; Protein 16 g; Fat 10 g (includes 3 g saturated fat and 320 mg cholesterol); Carbs 3 g; Fibre 1 g. Because the carbohydrate content is minimal, this frittata will have little impact on your blood glucose levels.

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

Creamy bean soup with sage & parmesan

Pulses or legumes are an important part of a low GI diet which is why it's a good idea to try and include them in your meals at least twice a week – more often if you are vegetarian or vegan. One serve is equivalent to ½ cup cooked beans, lentils or chickpeas. This is an easy recipe for a quick smart meal on the run as it only takes about 10 minutes to whip up and the leftovers can be reheated for lunch or popped into the freezer. Makes 4 serves @ \$1.10 per serving

1 tablespoon olive oil

2 onions, peeled and chopped

3 cloves garlic, peeled and chopped

½–1 teaspoon dried sage (or thyme)

2 × 400 g cans cannellini or butter beans, drained and rinsed

3 cups water or vegetable stock

1/3 cup grated Parmesan cheese

- Heat the olive oil in a large saucepan over medium heat and sauté the onion and garlic for about 5 minutes or until the onions are soft, stirring occasionally so they don't burn. Stir in the sage.
- Tip the beans into the saucepan and pour over 3 cups of water. Cover and bring to the boil then reduce the heat to low and simmer for 10 minutes. Scoop out 1 cup of the liquid and set it aside.
- Whiz the soup to a creamy puree, adding the reserved liquid for a thinner soup if you prefer. Stir in the cheese and season with freshly ground black pepper. Reheat, ladle into bowls and serve topped with a few twists of freshly ground black pepper.

Per serving

Energy: 1040 kJ/ 248 cal; Protein 15 g; Fat 8 g (includes 2 g saturated fat and 7 mg cholesterol); Carbs 27 g; Fibre 8 g

Busting Food Myths with Nicole Senior

***Myth:* Some foods burn fat.**

***Fact:* Burning body fat (losing weight) requires an energy deficit and individual foods are unlikely to make a big difference to your waistline.**

The idea that some foods have inherent fat-burning properties has been around for some time. Until I typed 'fat-burning foods' into my search engine I had no idea so many foods were recommended for this amazing ability. Bananas, chilli, ginger, garlic, grapefruit, pineapple, low-fat dairy products, kidney beans, green tea, eggs and even olive oil get a mention. There is obviously some confusion about the difference between healthy foods to

include in a weight loss diet and actual 'fat-burning foods', but is there any evidence to back up any such claims? A perusal of the scientific literature revealed several foods showing some promising effects: green tea, caffeine and chilli. Contrary to the diet book of the same name, evidence for the fat-burning power of grapefruit is conspicuously absent.

Green tea contains antioxidants called catechins which have been found to increase metabolic rate and fat oxidation (the sciency term for fat-burning). But before you go out and drink your own body weight in green tea you need to know the research is far from conclusive and any effect is likely to be somewhat modest. On the plus side, green tea is typically consumed without milk and sugar and without sticky buns and chocolate biscuits. Even without the fat-burning benefits, green tea is a zero kilojoule/calorie source of fluids with the bonus of antioxidants.

Caffeine is well known for its effect in enhancing exercise performance. It actually releases stored fat to fuel exercising muscles. The stimulant effect also helps to reduce fatigue and make exercise feel easier. As expected, there is a down side – too much caffeine is harmful. There are also practical aspects to consider. For instance, a cup of instant coffee or tea before your morning jog is likely to have benefit, whereas an 'energy drink' loaded with sugar or an iced coffee on whole milk with whipped cream without exercise will not.

Chillies have an active ingredient called capsaicin, which is the substance that makes them taste hot. The studies on chilli are small and show a variety of responses between individuals, however they do support the idea that daily ingestion increases metabolic rate and increases 'fat burning'. However the positive impact is limited by the small amounts typically consumed, and eating it daily poses a challenge. On the practical side, chilli is popular in Tex-Mex cuisine and it is easy to see how any advantage could be lost amidst the corn chips, cheese and sour cream! On the other hand, chilli in high concentration may forcefully put the brakes on eating because of the pain, and comes with the added bonus of clearing out your sinuses. There is no need to suffer pain in your quest for health because enjoying comfortable levels of chilli within healthy, balanced meals is one of the many natural highs you can get eating great-tasting food flavoured with healthful herbs and spices rather than the demon salt.

For more information about heart-friendly foods and enjoyable healthy eating including recipes, check out <http://www.eattobeatcholesterol.com.au/>

Talking Turkey with Prof Trim

True or false?

1. You have to bust a gut to lose a gut.
2. Sit-ups will not help reduce fat off the waist.
3. Exercise is better than dieting for weight loss.
4. Swimming is better than walking for weight loss.
5. Exercise before breakfast is better for fat loss.
6. Sauna baths are good for fat loss.
7. Weight lifting is good for fat loss.
8. The best measure of body fat is Body Mass Index (BMI).
9. You lose more weight doing exercise you are good at.
10. An overweight person can be fit and healthy.

Question	Answer
1. False	You have to bust a gut to be an athlete. For weight loss and good health, Cumulative activity is enough.
2. True	They just give you a tight fat belly instead of a loose fat belly, as they work the muscle underneath the fat.
3. False	At least not in the short term. It's easier to take 1000 calories out of food than add the same to exercise. Long-term is different.
4. False	For the same amount of effort, any weight-bearing exercise is better than weight-supportive exercise for weight loss.
5. True	As glycogen levels drop off over night, more fat is burned with exercise before eating.
6. False	Weight loss maybe (i.e. sweat) – but this is replaced with fluid intake. It's not really fat that's lost.
7. True	Any exercise is good for fat loss. Weight lifting is good because it maintains metabolic rate at a higher level.
8. False	This is a measure of height and weight, which discriminates against the short and muscular. Waist circumference is usually a better measure.
9. False	More weight is lost when you work harder. And you work harder doing exercise at which you are inefficient (or not good at).
10. True	Provided s/he is active. Similarly a lean person can be unfit and unhealthy.

Your Success Stories

I'm frustrated and angry at being ignored for so long. I fell through the net. My experience should become a case study to avoid the problem occurring for other people. – Angus

'Some 20 years ago when I went home to visit my family in Scotland I was diagnosed with type 2 diabetes and put on oral medication. When I returned home to Adelaide, my doctor conducted the normal HbA1c test and was delighted at the result which showed I had perfect diabetes control and discontinued my medication.

Over the years, numerous health professionals assured me that despite some of my pathology reports showing fasting blood glucose levels on the high side, my HbA1c tests showed I was maintaining excellent control of my diabetes. But I knew my diabetes management was far from perfect. I continually felt unwell and my own blood glucose monitoring showed my levels were high, especially under job related stress. I eventually stopped taking my BGLs as I didn't see the point.

Frustrated that no one would listen to me, I entered into a research program for people with diabetes. Over a five-year period I had blood samples taken every six months to measure my HbA1c. Again, the results came back showing that my diabetes was continuing to be well-managed.

Eventually, I saw another endocrinologist, who finally solved the mystery of why numerous laboratory-based tests performed over almost 24 years showed my HbA1c readings were within normal range. He ordered a fructosamine test, which measures blood glucose over a shorter period, and following further investigations, told me that I had haemoglobinopathy

I had never heard of haemoglobinopathy so I went away and researched to find out what it all meant. In fact it is an hereditary, uncommon blood abnormality and a pitfall in diagnostics because it interferes with the HbA1 readings. After my diagnosis, I was put on additional oral medication and my diabetes management is back on track.

My story highlights the need for a greater focus on patient-centered care. Health professionals need to listen to what patients say and when results don't continually add up, people need to be referred to specialist services. When blood glucose results obtained at home over an extended period of time differ substantially from the HbA1c tests, it's important to consider so called "interfering factors", one of which could be haemoglobinopathy.'

GI Symbol News with Alan Barclay

Facelift for the GI Symbol

Look out for the new and much brighter GI Symbol in your supermarket. The new Symbol, which started appearing on products on supermarket shelves in Australia at the end of September, has all the same trusted credentials as the old one. We have just given it a facelift to make it much brighter and help you make your healthy choices, even easier choices.



The GI Symbol is your trusted guide to healthier food choices. You can be confident that when you choose a food that carries the GI Symbol, that the GI value stated near the nutrition information panel is accurate and the product meets the GI Symbol Program's strict nutrition criteria.

The Glycemic Index Symbol Program is an international public health program which provides accurate and balanced information on the glycemic index. The Program guarantees that a food carrying the GI symbol has been independently GI tested by an accredited laboratory and meets very strict nutrient criteria, which include specified limits for carbohydrate, energy (kilojoules or calories), total and saturated fat, sodium and, where appropriate, fibre and calcium. Manufacturers pay a licence fee to use the Symbol on food labels and this income is channelled back into research and education.

The Program is run by the Glycemic Index Foundation, a not-for-profit organisation established by the Juvenile Diabetes Research Foundation, the University of Sydney, and Diabetes Australia who are all represented on the board. The Foundation is committed to promoting healthier lifestyles through a combination of low GI diets and sound nutrition.

GI Update

The latest GI values with Fiona Atkinson

New low GI breakfast cereal

'It's good to have some low GI flaked cereals available on the market that taste great and are nutritionally sound,' says SUGiRS manager Fiona Atkinson. 'GI testing the Goodness Heart 1st cereal was really easy as the volunteers loved the toasted flakes, oats and dried cranberries.'

Goodness Heart 1st, Goodness Digestive 1st and Goodness Protein 1st are flake type breakfast cereals manufactured with the low GI flour power of BARLEYmax (see *GI News* May 2006) – a non-genetically modified barley grain with enhanced nutritional benefits developed by Australia's CSIRO.

We have yet to taste them here in the editorial office, but we have heard enthusiastic reports such as: 'stays crunchy', 'doesn't go soggy with milk', and 'bloody delicious'. According to the ingredient panel they contain rolled barley flakes, golden syrup and (Digestive 1st – sultanas, diced apple and honey) and (Protein 1st – soy flakes and amaranth).

So how does a bowl of these cereals (45 g or 1½ oz a serving) rate in the GI stakes (served with low fat milk)?

Goodness Heart 1st – GI 46 (available carbs 20 g)

Goodness Digestive 1st – GI 39 (available carbs 18 g)

Goodness Protein 1st – GI 36 (available carbs 17 g)

For more information: goodnesssuperfoods.com.au.

Fruit juice Q&A with Prof Jennie Brand-Miller

'Does fruit juice have a low GI? If people are craving a sweet drink, are they better off drinking a small glass of fruit juice than a non-diet soft drink, cordial or sports drink?'

Yes, fruit juices have a low GI in most cases (40–50) and they contribute valuable micronutrients that you won't find in alternative beverages. Some fruit juices are not low GI, e.g. Ocean Spray cranberry juice/drinks, which are around 60. Most non-diet soft drinks are in the range 60–70. Sports drinks can be 70–80.

'Does the very high amount of fructose in fruit juice have any effect on the release of glucose?'

When it comes to any sugary product (natural or otherwise), you have usually have a mixture of sucrose, glucose and fructose. Sucrose is digested quite quickly to glucose plus fructose before absorption. While glucose is generally absorbed rapidly, it can be slowed by acidic solutions (e.g. all fruits are acidic). Fructose absorption is a much slower process and doesn't raise glycemia anyway. The high proportion of fructose in fruit and fruit juice is one reason why they have a low GI. But it's not the only reason. Very large amounts of fructose (70 g a day or more) from any source can have adverse effects on blood lipids (fats). The old adage applies: enjoy in moderation.

'Are there any advantages to drinking fruit juice, or should people always opt for the whole fruit? So long as people limit themselves to one small glass a day, can 100% fruit juice be part of a healthy diet, or should people consider fruit juice an occasional treat?'

Opt for whole fruit if you want to feel fuller (satiated) for a longer time. but as long as people limit themselves to one small glass a day, 100% fruit juice can be part of a healthy diet. I can't think of any advantage of drinking fruit juice (I avoid them myself). It's much more satiating to eat the same portion as the whole fruit. But I'm pragmatic too ... if there's no fruit on hand, then fruit juice is better than no fruit, and superior to a soft drink.

Bear in mind that some researchers believe that sugars in solution (whether soft drinks or fruit juice) bypass the satiety centre in the brain, i.e. we don't register them properly and therefore don't take their calories into proper account. I'm actually quite sceptical of this idea. Milk is a solution of sugar but babies seem to grow at the right rate.