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# The Bond Briefing

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RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

**Viewpoint:** Glycemic Index – Pros and Cons. **Paleo-Biology:** Forager Gut Bugs not like ours. **Siren Song Watch:** The Truth about Sports Drinks. **Recipe:** Savory Paleo Crust. **Q&A:** Women and Starch Intake; Omega-7, Dry Eye, and Sea Buckthorn. **From the labs:** Kids – What Happened to Play? Cancer Rare in Ancient Egypt; Sunshine, But not Vitamin D Helps Mood & Fatigue in MS; Celiac Disease and CVD. **Upcoming Events:** Academic Lecture, Paphos, Cyprus.

## Viewpoint

### Glycemic Index: Pros and Cons

When, in 1981, David Jenkins and Thomas Wolever carried out blood glucose measurements with real food on volunteers and, in the process, devised the Glycemic Index (GI) [1], their findings were revolutionary.

They turned upside down many fondly held beliefs about the glycemic impact of consuming starchy and sugary foods.

At the time they took great pains to explain that GIs were AVERAGES and that there is wide variation between test subjects, and between similar samples of foodstuffs.

In my 2000 book *Natural Eating*, [Appendix \[2\]](#), I summarized many of the variables. As Wolever said in 1997, "The GI is a valid and potentially useful concept, but is also deceptively complex." [3].

In the intervening years there have been many criticisms of the Glycemic Index, most of them unfounded.

Last year Wolever produced a cogently argued rebuttal to these criticisms [4] where he says: "This paper addresses current criticisms of GI and outlines reasons why GI is valid:

- 1) GI methodology is accurate and precise enough for practical use;
- 2) GI is a property of foods;
- 3) GI is biologically meaningful and relevant to virtually everyone." **Cont: p.2**

## Paleo Biology

### Forager Gut Bugs not like ours



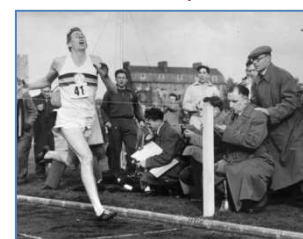
#### Hadza women roasting tubers

It has taken a while to get round to it, but finally researchers have analyzed the bacteria in forager stools [5]. They did it on Hadza folk – a people who are among the last examples of Paleolithic life [6]. Compared to Europeans they found big differences:

- a) There was almost complete absence of *Bifidobacterium*, strains of which are normally thought of as being 'healthy'. Indeed they are even promoted as a probiotic.
- b) The bug types are well suited for processing indigestible fibers from a plant-rich diet.
- c) There is a much richer **VARIETY** of microbes – a factor that the researchers consider protects against IBS, colorectal cancer, obesity, diabetes II, Crohn's disease and others.
- d) The microbe, *Treponema*, was abundant among healthy Hadza individuals, whilst in Europeans, the same bacterium has been linked to autoimmune diseases. **Cont: p. 3**

## Siren Song Watch

### The Truth about Sports Drinks



This month marks 60 years since Roger Bannister ran the first sub-4-minute mile. These were innocent times and a small boy like me could dream of such exploits one day.

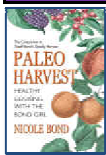
A medical student, Bannister trained by running round the local park at lunchtime (so I ran around my local park at lunch-time). He ate baked beans on toast (so I ate baked beans on toast). He got his first running spikes (I still wore plimsolls).

On the day of the race Bannister went to Oxford by train, had lunch of ham salad with friends and children and then, later that afternoon, popped over to the track for the race.

This is a world away from the regimentation today's athletes undergo - with its retinues of physiologists, psychiatrists, dieticians – and sports drinks.

Sports drinks? Hydration? Every so often I fulminate against the way the public and athletes alike are bamboozled with messages about 'hydration'. See '*Distance Runners Drink too Much*', [Sept 2011](#)) and '*Doc: Eight Glasses of Water a Day Mantra is 'Non-sense*', [July 2011](#). **Cont p. 3**

## Recipes



Nicole's latest cookbook *Paleo Harvest* ([www.Paleo-harvest.com](http://www.Paleo-harvest.com)) has over 170 new and updated recipes using the latest ingredients. Here is one of them:

### Savory Paleo Crust

**Yield: one 9" to 10" crust**

This fully-conforming crust can be substituted for conventional dough in your favorite savory recipes. For example 'Spinach Quiche' (page 102 of *Paleo Harvest*) and to be published here soon.

1½ cups almond flour (about 6 oz)  
4 tablespoons olive oil  
1½ teaspoon baking powder  
1 teaspoon xanthan gum  
½ teaspoon garlic powder  
¼ teaspoon salt  
2 tbsp. water, or more if needed  
optional: 1 tablespoon chia seeds (or sesame seeds)  
olive oil spray

1. Take a medium-size mixing bowl and, with an electric hand-mixer, beat the almond flour with the olive oil, baking powder, xanthan gum, garlic powder and salt. Add the water as needed for required consistency. Mix thoroughly until combined to a pastry of thick consistency.

2. Optional: mix the chia seeds into the dough. Use your hands to knead the dough and form into a ball.

3. Spray a round 9-inch or 10-inch diameter baking dish with the olive oil. Using your hands, press the dough into the dish, by leaving a low rim around the edges. Prick the bottom of the dough with a fork.

4. Bake in a hot oven at 340°F (170°C) for about 10 minutes, to set the dough.

5. Allow to cool completely before filling.

## Questions

### Women and Starch Intake

**Q.** Many females report thyroid and/or adrenal problems as a result of low carb diet and have taken to adding 'safe starches' such as sweet potatoes, carrots, swede and rice into their diets. Yet, a very low carb diet is promoted for those with insulin resistance and blood sugar issues. In this case, fruit is often demonized.

**A.** There is no rationale for women having a different diet to men. Our ancient ancestors practised what is known as 'central place provisioning' [6].

This means that the foraging and hunting parties brought their food back to the campsite where it is shared out. By and large, everyone ate the same as everyone else. And, of course, starch was a very low proportion of the diet ([March 2013](#)).

As for thyroid and/or adrenal problems on a low starch diet, I have not seen (and cannot find) any scientific reports of such a phenomenon. If you have any citations I would be delighted to hear of them.

However, people moving to a Paleo diet might well be tempted to increase intake of RAW brassicas (cabbage family). These are 'goitrogens' – they attack thyroid function (see: *Thyroid-Attacking Plants*, [Oct 2008](#)).

Pulses (lentils and beans) are also goitrogenic – but no one on the Bond (or Paleo) Precepts should be eating these anyway.

So, yes, we should all be consuming a diet which has low 'glycemic impact' (see page 1). In this context, sugary fruits (like pineapple, melon and mango) should also be avoided.

### Omega-7, Dry Eye and Sea Buckthorn

**Q.** For 30 years I have suffered from dry eye and 'meibomian gland' dysfunction. None of the top specialists has succeeded in

giving me relief from the feeling of grit in my eyes.

Then I heard about the omega-7 oil in sea buckthorn as being a miracle cure. Within 5 days, for the first time in years, my eyes are comfortable without drops or treatments. However, I do have to be extra vigilant about body odour. What is your view?

**A.** The meibomian glands are in the eyelids and their role is to secrete a complex oily compound which stops evaporation of the eye's tear film. If the meibomian glands don't do their job, dry eye and gritty sensations follow.

Omega-7 oils are a class of monounsaturated fats, the chief one being 'palmitoleic acid'. The body routinely makes palmitoleic acid from palmitic acid which, in turn, it makes from blood sugar. So there is no shortage of omega-7 oil in the body – in fact it is everywhere. It has some good properties: it suppresses inflammation and increases insulin sensitivity.

The composition of meibomian gland secretions is still a bit of a mystery, so it is just possible that sea-buckthorn's palmitoleic acid is performing some function in a way we do not understand.

On the other hand, sea-buckthorn is also rich in omega-3 oil, which DOES have a track record in improving dry eye. If you want to experiment, try a salmon steak once a day instead!

As for the odour ('old person smell') the blame is placed on oxidation of palmitoleic acid on the surface of the skin.

### Continued from Page 1

### Glycemic Index: Pros and Cons

... Nevertheless, as biochemist Dr Mark Burkitt of [Westcott Research and Consulting](#), UK suggests (amongst other criticisms) that perhaps the concept of the GI is being "overextended" [7].

I am inclined to agree. The concept of GI has achieved mass popularity and is being used uncritically by people with little

or no understanding of its origins or limitations.

In particular it has reached totemic status where the GI number is quoted to settle all argument as though it were a scientifically precise concept.

On the contrary, GI is just suggestive of what we are really interested in: the actual **IMPACT** that the glycemic food has on the body. After all, eating just one cornflake is not going to produce a harmful blood sugar spike.

The concept of glycemic load (GL) is an attempt to address this question but in truth it is almost useless, see '*Glycemic Load*', [April 2003](#).

Likewise New Zealand researchers, Monro and Shaw, attempt to define relative glycemic **IMPACT** – the glycemic glucose equivalent (GGE) of a particular portion of food [8].

For example a 74g bagel has the same glycemic impact (GGE) as 22g of glucose (really!).

But this too is not, in practice, terribly helpful. Like GL, GGE depends on knowing the portion size, and only consuming that amount.

So, as I say: "We use glycemic indexes and loads as just part of a galaxy of factors used to identify foods to which we are naturally adapted".

That starches and sugars come out badly simply reflects the fact that they were never a significant part of our ancient ancestral diet and should be avoided.

**Continued from Page 1**

### Forager Gut Bugs not like ours



... However, the Hadza suffer no autoimmune diseases. Therefore, say the researchers, we must redefine our notions of "healthy" and "unhealthy" bacteria.

**My View?** In '*Make of your Gut a Herb Garden*', [Feb 2009](#), and subsequent articles, I have explored the extraordinary

evidence building up showing how gut bacteria affect our health in so many ways. No doubt we still have much more to learn – but all the evidence points to a forager diet as being the way to go.

**Continued from Page 1**

### The Truth about Sports Drinks



... "Prehydrate"; "drink ahead of thirst"; "train your gut to use more fluid"; "your brain doesn't know you're thirsty"

But these drinking dogmas are new – so how did they gain traction? Dr Deborah Cohen, investigations editor writing in the *British Medical Journal*, found that sports drink companies, like Gatorade, sponsor scientists dedicated to hydration [9]. These scientists advise sports medicine organizations, which develop guidelines that filter down to everyday health advice.

Says Dr Cohen, Gatorade's greatest success was to undermine the idea that the body has a perfectly good homeostatic mechanism for detecting and responding to dehydration – **THIRST**. And so they have spread false alarms about the "dangers" of dehydration.

But as Dr Cohen points out, no marathon runner has suffered from dehydration whereas some 16 marathon runners have died from OVER-HYDRATION (water intoxication) and 1,600 were made critically ill.

She goes on to lambast sports drinks as being a useless sugar-laden commodity (5 teaspoons of sugar in a typical bottle).

Her findings chime with those of Tim Noakes, professor of sports medicine, in his book *Waterlogged: The Serious Problem of Overhydration in Endurance Sports* [10].

See also his video clip '*Drink to your thirst*':

<http://youtu.be/8dFIV-Rn1yw>.

**My View?** Foragers drank to their thirst and we should too.

**From the Labs**

### Kids: What Happened to Play?



The typical forager band contains some 10 to 15 juveniles of all ages. They play a lot: pretend-adult activities like hunting, singing and dancing; imitating animals; rough-and-tumbling; playing at mothers and fathers; aimless free play and so forth. The younger ones learn from the older ones.

Today, gone are the hazy days when kids could run free all day and play. Is lack of play guilty in the declining mental health of kids in UK & USA? Is it leading to a psychotic society? "Yes", says Dr Pam Jarvis of Leeds Trinity University, UK [11].

Through play, "children develop feelings of belonging, usefulness, and subsequent well-being. When deprived of play, children lack social connectivity and have less mental wellness."

Jarvis fingers major changes over the last three decades:

- a) Fear of 'stranger danger',
- b) Helicopter parenting (where overprotective parents hover over every aspect of their child's life).
- c) Schools – which have become intensive learning factories to the expense of play time.

In particular, says Jarvis, schooling should be lightened up and integrated into neighborhood communities which offer "an organic environment designed to facilitate free play and discovery activities." This would lead to "a holistic approach to development and learning."

**My View?** Bring back the village with its social connectedness and its village school!

### Cancer Rare in Ancient Egypt



Cancer lesions in thorax vertebra

Cancer is a disease of modern industrial societies. And as we go back in history it becomes more and more rare.

For example, thousands of Egyptian mummies have been examined and none has yielded signs of cancer – until now.

Researchers from Durham University have found evidence of metastatic cancer in a 3,200 year-old skeleton of a young adult male [12]. The site of his primary cancer is unknown, so we still cannot pronounce on what happened.

However, let us not forget that 3,200 years ago is still recent history in terms of the shift to a farming lifestyle. Ancient Egyptians had already been living the farming lifestyle for 8,000 years.

It is not surprising therefore, if the high glycemic diet and/or some other lifestyle mismatch drove the occasional unsuspecting ancient Egyptian into cancer.

### Sunshine but not Vitamin D Helps Mood & Fatigue in MS

Sunshine is a lot more than just the vitamin D cocktail it makes. Now researchers find that MS sufferers receiving higher levels of sun exposure had dramatically less depression and fatigue [13]. These benefits had nothing to do with their vitamin D status. So, the researchers say, the **POSITIVE ROLE** of UV rays needs to be studied further.

**My View?** What a turnaround! UV rays, demonized for years, are on the way to rehabilitation!

### Celiac Disease and CVD

Researchers find that celiacs have a twofold risk of coronary artery disease compared to healthy subjects [14].

Persistent low-grade gut inflammation spills immune system attack cells into the bloodstream which accelerate hardening of the arteries.

Experts warn that perhaps 80% of celiac sufferers are either undiagnosed or misdiagnosed as IBS, lactose intolerance etc.

Moreover there has been a 400% increase in celiac disease just in 50 years. (Why might this be? See [Next Month](#).)

The only solution is a gluten-free diet. US sales of gluten-free products will **DOUBLE** from \$2.6 billion in 2010 to \$5 billion in 2015.

**My View:** Gluten is not human food, it is antagonistic, and no one should be putting it in their body.

For a gluten-free resource, see: [www.uggfoods.com](http://www.uggfoods.com)

### Upcoming Events

<http://bit.ly/bond-event>

### ACADEMIC LECTURE

**Is Cancer Optional?** *Our evolutionary history gives us revolutionary insights for avoidance and remission.*

**At:** 5th International Medical Conference RAHMS, Cyprus

**Info:** [www.rahms-medicine.org/](http://www.rahms-medicine.org/)

**Dates:** 6-12 July, 2014



**Deadly Harvest:** Geoff's latest work encapsulates current thinking on lifestyle anthropology. [www.deadlyharvest.com](http://www.deadlyharvest.com)



**Paleo Harvest Cookbook:** Over 170 delicious, Bond Precept conforming recipes [www.paleo-harvest.com](http://www.paleo-harvest.com)

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