



The Bond Effect The Bond Effect The Bond Effect

The Science and Art of Living the Way Nature Intended

The Bond Briefing

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Food Politics

Doc: Eight Glasses of Water a Day Mantra is 'Nonsense'.

On many occasions I have argued that the mania to glug water at every opportunity has no basis in evidence ([July 2009](#)). 'Water Obsessed Culture', [July 2007](#).



Indeed, as Dr Heinz Valtin pointed out: "I find it difficult to believe that evolution left us with a chronic water deficit that needs to be compensated by forcing a high fluid intake" [1].

In this regard, take a look at how the San Bushman survive on very little water: '1951 Bushmen on Film', page 3.

In contrast, too much water is harmful ('Senseless on Water', [Aug 2003](#)) and can be fatal ('Gallon of Water Kills Mom', [Sept 2010](#).)

The medical profession is catching up. The recommendation to drink eight glasses of water a day to prevent dehydration "is thoroughly debunked nonsense," says Margaret McCartney M.D in the UK doctors' trade journal, British Medical Journal (BMJ) [2].

'There is no evidence of any benefit from drinking increased amounts of water, yet the "we-don't-drink-enough-water" myth has endless advocates, including the UK's National Health Service.'

Dr McCartney fingers the bottled water companies for promoting this myth...

Cont. p4.

Bond Protocol in Unusual Situations

Update: Long Pilgrimage on Foot



Elisabeth has only 1,000 km to go!

In [Feb 2011](#) and [March 2011](#) we reported on reader Elisabeth Gonthier's plans to walk the pilgrim's trail of *El Camino de Santiago de Compostela* (The Way of St James) from Paris, France to Compostella, northern Spain.

We are delighted to have Elisabeth's report, and to know that she is fit and well.

Elisabeth, who is 64, walked on average 15 to 20 miles (25km to 30 km) per day, carrying a 15lb (7kg) rucksack, and staying at wayside hostels, inns, rustic lodging houses, and even with local inhabitants.

Elisabeth reports that it is a wonderful way to lose weight. She passed through beautiful countryside and picturesque villages.

She usually ate at the inn, dining on a hefty mixed salad, fish or poultry (plenty of duck through the duck country of Périgord), and vegetables such as ratatouille or green beans. **Cont. Page 4**

Human Psyche

Oversimplifying Complexity

The human psyche believes only too readily that it is possible to reduce highly complex problems to simply applied answers.

It is a theme which permeates my writing. I consistently highlight the unintended consequences of 'magic bullet' thinking for systems as complicated as the human body (see 'Our Complex Biology', [June 2008](#))

Politicians are particularly prone: they have 'fixes' for education, healthcare, global warming, the global financial meltdown and anything else the voters want.

Sociologists are not far behind: for example, according to some, just about all the ills of society can be 'fixed', just by everyone having equal income (see 'The Spirit Level Delusion', [Aug 2010](#)). **Cont. P 3.**

Cautionary Tale

Dog Chews off Diabetic's Toe

Is the effort of living right worth the candle? Well, listen to this.

A research paper reports the case of a woman who, because of her diabetes had lost feeling in her foot [3]. She had already lost the other leg to diabetes.

She went to bed one night with her Jack Russell terrier. She woke up in the morning to find he had chewed off her big toe.

It gets worse. As a result of this injury, she lost this leg too, leaving her a double amputee.

See: 'Maggots Cure Diabetic Ulcers', [July 2007](#).

Recipe

Coconut Ice Cream

Yield: 12 servings (depending on how you scoop it)



In warm weather, this dessert is a favorite with everyone. It does use coconut milk which is borderline conforming – but what the heck – as a summer treat it's a whole lot safer than the regular options!

- 1 (13.5 ounce) can coconut milk
- 2 tablespoons xylitol sweetener (or fructose), or more to taste
- 1 tablespoon vanilla extract
- ½ teaspoon xanthan gum
- 2 eggs, omega-3

Optional: 6 squares dark chocolate, broken into chips

1. Place the coconut milk, the sweetener, the vanilla extract, the xanthan gum and eggs in your blender and mix well.
2. **Optional:** add the chocolate chips and blend briefly, so that the chips stay in small pieces.
3. Place the mixture in an ice cream maker and proceed following the instructions of the machine.

No ice cream maker? Place the mixture in a bowl, and place it in the freezer. From time to time, fold the frozen edges in towards the middle to entrain air bubbles. Do this after 1 hour, once more at the second hour, and then every 30 minutes for the next 2 hours.

Questions

Hempseed Conformity

Q. You mention hempseed favorably in *Deadly Harvest*, but I would like to know more. Was it present in our ancestral homeland?

A. No food we use today was present in our ancient homeland. That is why today's foods have to be viewed through the savanna model lens to see if they fit.

Hemp seed has its origins in China and the first evidence of its use comes from 7,000 years ago.

In a 2006 study, Ursula Schwab, Kuopio University, Finland, found that hempseed oil had a beneficial effect on the bloodstream's fatty acid profile, although flax seed was better [4].

For further information on the qualities of hempseed, see my previous articles: 'Hemp seed', [Dec 2009](#); 'Hemp High', [April 2001](#)

Citric Acid Additive OK

Q. I hear that the additive citric acid (E number 330) is made from fungus. Is this all right?

A. Yes. As its name implies, citric acid was first discovered in citrus fruits, notably lemons.

Citric acid is a vital element in metabolic reactions and it is naturally present in a wide range of foods. Nowadays, citric acid is mostly made from a mold, *Aspergillus niger*, not from lemons.

Whatever the source, the citric acid is human food and is one of the least of our worries where additives are concerned.

Hempseed Antinutrients

Q. I am a health professional researching hempseed for antinutrients. Besides isoflavones what other phytochemicals should I look out for in my research?

A. Who knows? The literature has not, as far as I am aware, turned up any notable anti-nutrients. If there are any, they might be ones that are quite unexpected.

In grains, they are quite well understood now: lectins, alkyl resorcinols, alpha-amylase inhibitors, protease inhibitors and, of course, gluten.

Potatoes have glycoalkaloids, amaranth (a pseudo-grain) has oxalates, beans have a variety of lectins and isoflavones, and quinoa (a pseudo-grain) has saponins and cyanide.

Let me know if you turn up anything interesting for hempseed.

Glycemic Index Double Standard

Q. I've found that some glycemic indexes use white bread as the reference food, not glucose. It makes a difference. For example white bread has a GI of 70 on the glucose scale but 100 on the white bread scale. What is going on?

A. Yes, the white bread reference standard is a recent aberration and has caused much confusion.

When David Jenkins in 1981 produced his groundbreaking paper describing his invention of the GI concept, he used glucose as the reference standard [5].

I've always stuck to the glucose standard, as do all reputable authorities. Even so, I am always careful to check which standard has been used before citing a GI and, if necessary, converting it to the glucose reference standard.

See 'GI Briefing' page 3

Food Ideas

Many are devastated to learn that porridge (oatmeal) is just another cereal and should be avoided. Often they have been duped by the American Heart Association's venal logo ([Oct 2009](#)).

Now reader Kim Lloyd ([Nov 2009](#)) has ridden to the rescue with a recipe using chia seed. This makes a healthy, satisfyingly stodgy porridge and a good breakfast option.

Chia Seed Porridge

Yield: 2 servings

- ½ cup (about 1½ ounces) pure chia seed flour [*]
- 2 cups almond milk
- 1 teaspoon cinnamon, or to taste
- 1 teaspoon vanilla extract
- sweeten to taste (with fructose, xylitol or artificial sweetener)

1. Soak the chia seed flour in the almond milk for minimum 2 hrs.
2. Heat the mixture on low heat, stirring all the while.
3. Add the cinnamon, the vanilla extract and sweeten to taste.

* In USA a good online source is www.nuchiafoods.com, run by Homer Hartage.

Jungle Lore

G.I. Briefing

In 'Glycemic Index Double Standard', page 2, I spoke of David Jenkins invention of the GI.

His description of his method is a model of concision and clarity and it bears repeating here. What he did was this:

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 hours, and expressed as a percentage of the area under the glucose response curve when the same amount of carbohydrate was taken as glucose [5].

So the GI for glucose was set at 100 as the reference standard and the GI for other foods is a percentage of it.

Jenkins chose glucose because a) that is what is being measured in the blood-stream and, b) because it was thought to give the highest reaction. Also glucose is a precise chemical compound and is the same for any researcher around the world.

Now some bright spark thought that it would be easier to use white bread as the reference standard setting its GI as 100. Quite a few studies were done on that basis.

That meant that, on the white bread reference standard, GI's all went up, including glucose, which goes out to a GI of 140!

But unlike glucose, white bread is not a standard product and GI's varied each time a test was done, so nowadays few laboratories employ that method.

Unintended Consequences

Fat Substitutes, Weight Gain Link



New research suggests that synthetic fat substitutes used in low-calorie potato chips and other

foods could backfire and contribute to weight gain and obesity [6].

The low-calorie chips are made with olestra, a synthetic fat substitute that has zero calories and passes through the body undigested.

Why would a fat substitute confuse the body? Food with a fatty taste usually indicates a large number of calories, and the taste triggers various responses, such as salivation, hormonal secretions and metabolic reactions.

Fat substitutes can interfere with that relationship when the body expects to receive a large burst of calories but is fooled by a fat substitute.

This is a similar phenomenon to the perverse effect of artificial sweeteners whose taste trigger small insulin surges ('Sweeteners and Hunger', [Oct 2010](#)). This leads to low blood sugar levels and so the desire to potentially eat more and so put on weight.

From Page 1
Human Psyche

Oversimplifying Complexity

The BBC's resident mathematician, Tim Harford, did a good forensic job dismantling that one ('Amazing Popular Delusions', [Aug 2010](#)).

Now Tim Harford has given a most inspiring 18 minute talk at the TED conference [†]. His idea is that politicians and authority figures, when confronted with highly complicated problems, develop a 'God Complex'. By this he means that they sincerely believe in a 'fix' and that they can impose it from on high. This, according to Harford, is doomed to failure.

On the contrary, they need to approach such problems with *humility* and a constant testing to see which variants work in practice.

That is just how natural selection works to identify the 'fittest' solution.

† www.ted.com. TED is a foundation whose mission is to: "bring together the world's most fascinating thinkers and doers, to give the talk of their lives (in 18 minutes or less)". TED online is a wonderful FREE resource for lectures on an amazing array of topics.

Hear and see Harford's talk here: <http://bit.ly/raqNb4>

Evolutionary Anthropology

1951 Bushmen on Film

In my formative years I was enthralled by the 1957 BBC TV series, "The Bushmen of the Kalahari", done by Laurens Van der Post, who later became Prince Charles' mentor.

The famous Marshall expeditions of the early 1950's were, arguably more scientific, and I have owned one of their documentaries for many years. Now, the copyright owners have posted a 10-minute clip of it on Google-video.

It is remarkable for its depiction of Bushmen in their unacculturated state. This clip covers them making fire, building a camp, collecting water in ostrich eggshells, freezing through the 28°F (-2°C) nights, the nursing of 3-year-old toddlers - and more.

It is a wonderful way to get a feel for how the human species was molded.

See the Marshall clip here: <http://bit.ly/Bond-san>.

Hints & Tips

Dads Influence Kids' Junk Food

A father's use of restaurants and his perceptions of family meals carry more weight than mother's, according to a study [7].

"Fathers are told to spend more time with their children. But often they take this to mean 'have fun with your children'".

So dads tend to let the kids decide where and what to eat when he takes them out. Result: kids get into the habit of eating in fast food outlets instead of full service restaurants.

Dads need to have the knowledge and the discipline to say: 'No, I think we ought to eat someplace else and this is why.'

Evolutionary Psychology

Autism: Good for Foragers?

In *Deadly Harvest*, [Ch 9](#), p. 260, I say: "Some researchers suggest that some autistic brains are simply 'extreme' male brains" [8,9].

Taking this argument further, researchers at University of Southern California's psychology department suggest that autism is not a disease, but an ancient way of life for a minority of ancestral humans [10].

Some of the autism genes may have been selected because they created beneficial behaviors in a solitary environment, amounting to an 'autism advantage'.

The advantage includes increased abilities for spatial intelligence, concentration and memory.

Autistic individuals would have had the mental tools to be self-sufficient foragers in environments marked by diminished social contact.

Obsessive, repetitive activities would have been focused by hunger and thirst towards the learning and refinement of hunting and gathering skills.

Today autistic children are fed by their parents so hunger does not guide their interests and activities. So their interests are redirected toward pointless activities, such as stacking blocks, flipping light switches or collecting bottle tops.

Coming Soon

1. Since the conference in Montpellier (last month), I have received several papers to review and am in exchange of correspondence with several presenters. All this is taking some digesting, but I intend to share these insights over the next few months.

2. Recipes for Bond Power Bar, Broccoli Soup, Zucchini Rissoles.

Events

ADVANCE NOTICE

Geoff will be speaking at *The Body Conference* which takes place 5th & 6th November 2011 at The Royal Society of Medicine, London.

From Page 1 Food Politics

Doc: Eight Glasses of Water a Day Mantra is 'Nonsense'.

For example, Danone, makers of Volvic and Evian created the Hydration for Health Initiative which recommends 1.5 to 2 liters of water daily.

It also claims that "even mild dehydration plays a role in the development of various diseases." But McCartney argues that there is no high quality published evidence to support these claims.

Untangling Danone's evidence "results in weak and biased selection of evidence. Danone says we need 'informed choices', but their own evidence does not support their call".

She concludes: "There are many organizations with vested interests who would like to tell doctors and patients what to do. We should just say 'NO'."

Our View? Hear hear!

From Page 1 Bond Protocol – Unusual Situations

Update: Long Pilgrimage on Foot

Yes there was pasta too but no potato and little rice. A couple of glasses of wine and so to bed early at 9:00 p.m.

Breakfast: 2 or 3 fruits: orange, grapefruit, and kiwi – plenty of kiwi, having passed through the growing area of Sordes l'Abbaye.

Apart from losing weight, Elisabeth felt great and even lost her constipation problems.

How does this stack up with the Savanna Model? First the good elements: Walking good distances every day carrying heavy loads; surrounded by beautiful countryside; fresh air and sunshine; and a minimum of stress.

Her diet was, by conventional standards, pretty good – massive salads, duck, fish, ratatouille, green beans and other vegetables. But under the pressure of eating on the run (so to speak) she had some major lapses.

The convenience of a French baguette sandwich was not entirely unknown to her – delicious – but ouch! We would also go easier on all that kiwi fruit – rather glycemic.

The experience gave Elisabeth a new outlook on life. She says: '*J'ai compris que l'indispensable est souvent superflu*' (I came to understand that the 'essential' is often dispensable).

After 5 weeks and 700 miles (1,100 km), blisters finally got the upper hand and she had to abandon with 400 miles left to go.

Elisabeth will return to finish the route: "because the path is so BEAUTIFUL!"

We congratulate Elisabeth on her imaginative and healthful enterprise.

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