



The Bond Briefing

The Science and Art of Living the Way Nature Intended

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Bond Precept & Health: Great Blood Test Results. **Briefing:** Type I Diabetes & Gut Worms. **From the Labs:** Preserving Astronauts' Bones. **Hints:** What Would Batman Eat?; Chia Porridge Quick-fix. **Food Ideas:** Caveman Mix – Which Style? **Q&A:** Cure-all Alkalinizing Nostrum; Coconut Water. **Physical Activity Patterns:** Hadza Forager Energy Expenditure same as Westerners. **From the Labs:** List of Wheat Allergens Grows; High Salt – Calcium Depletion; More Triclosan Mischief; No Human Neanderthal Interbreeding after all?; Ancient Native Americans were Diabetes-free. **Web News:** Latest Video Clips Uploaded. **Unintended Consequences:** Calcium Tablets Increase Heart Attacks.

Bond Precepts & Health

Great Blood Test Results



With his family ([March 2007](#)), Frédéric Bouvet, age 47, of Annecy, France has been, a Bond practitioner for some 15 years.

He recently had a blood test after a period of what he terms 'work burnout'.

Fred was delighted to find that his vital signs are all perfectly aligned in the 'healthiest' range.

See them here:

<http://bit.ly/Bond-Physicals>

Briefing

Type I Diabetes: Gut Worms

Foragers are routinely infected with gut worms and we have to believe a symbiotic relationship built up over the eons of evolution. If they are not there, things might go wrong.

As a follow-up to [last month](#), a study confirms the remarkable efficacy of gut worms in preventing Type I Diabetes (T1D) [1].

In mice, the gut worm *H. polygyrus*, prompted T cells to produce cytokines IL-4 and IL-10 (hormone-like molecules). These in turn dampened the T-cells own aggression and inflammatory effects. This treatment: "provided lasting protection" against T1D developing. **Continued: p 4.**

From the Labs

Preserving Astronauts' Bones



Astronaut Jeffrey Williams exercises in the International Space Station.

Famously astronauts lose some 4% of bone mass per month while in space. The problem was absence of stress on the bones – the sort of stress that we should be giving them from earth-bound physical activity.

The answer was to give astronauts resistance work-out machines (see 'Astronauts' Bone Loss', [May 2009](#)).

The most recent machines are particularly effective [2]. But that doesn't deal completely with the bone-health challenge.

Nutrition is under the spotlight too. Experiments are continuing to establish optimum levels of animal protein and potassium. 80 space foods have been reformulated to REDUCE the sodium content. See 'High Salt - Calcium Depletion', page 2.

All this is a far cry from the junk food taken aboard by the first astronauts (see 'Space Junk: Glenn's Space-age Diet', [Nov 1998](#)).

In fact, under the no-nonsense demands of space-flight, we will obtain priceless research on various aspects of human lifestyle and nutrition.

Hints & Tips

What would Batman Eat?



Youngsters who are asked, "What would Batman eat?" choose foods that are more healthful than those children who are left to choose for themselves.

The study found that the number of children choosing apple slices over French fries rose from 9% to 45% [3].

We all know how ineffective it is to order a child against his will. This technique, which the researchers call 'priming', is more effective and is combat free! Just choose the superhero that works with your child.

Chia Porridge Quick-fix

Yield: 1 serving

This is the best idea for a breakfast starter and replaces the recipe in [July 2011](#)

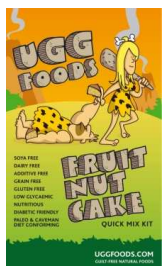
Chia is a terrific and healthful replacement for conventional oatmeal porridge, full of omega-3 fatty acids and natural plant fibers (hence its slightly glutinous nature).

- 2 tablespoons chia seed flour
- ½ cup water (or almond milk or coconut milk)
- 1 teaspoon vanilla extract
- 1 tablespoon xylitol, or to taste

Place the chia seeds in a small breakfast bowl. Bring the water to a boil and pour over the seeds, stir thoroughly. Let stand for 10 minutes, stir in the vanilla extract and xylitol.

Food Ideas

Caveman Mix: which Style?



Keen enthusiast, Kim Lloyd, who is developing a ready to use fruit cake mix, is now at the stage of choosing a package style (see [last month](#)).

We would like your opinion! Check the options on our website: <http://bit.ly/Bond-Ugg>.

Questions

Cure-all Alkalinizing Nostrum

Q. *What do you make of this 7 min video <http://bit.ly/VnszVO>? It claims that all diseases including cancer can be mastered by having an alkalinizing diet?*

A. Life is too short for me to chase up every single miracle cure, but I did waste 7 minutes of my time watching this video.

It is a mixture of humbug and pseudo-science salted with just enough fact to give an impression of plausibility. It is designed to dazzle the gullible and bamboozle the scientifically illiterate.

Why would they do that? The usual answer: "Follow the money!" The video ends with a sales pitch for an expensive magic potion which will cure all ills. Only bother watching if you wish to hone your critical faculties!

I do of course consider the question of acid/alkali balance an important factor in human health (Deadly Harvest, [Chapter 4](#), page 108) and there are good evolutionary reasons for doing so.

I have tackled the question of acidity and cancer in a previous article: '*Acid-forming Diet and Cancer*', [May 2008](#).

I have also debunked another alkalinizing nostrum – Kangen Water. See '*Electrolyzed Water for Cancer?*' [June 2010](#)

Coconut Water

Q. *What about coconut water? Marketers promote it as a healthy beverage and sports drink.*

A. Coconut water is the clear liquid found most abundantly inside young, green coconuts. It differs from coconut milk which is the

liquid expressed from the grated meat.

Coconut water is indeed mostly water and, unlike the 'milk', has very little fat or carbohydrate. Like the 'milk' it does contain much potassium and, unlike the 'milk', it has a high sodium (salt) content.

It is this content of electrolytes (sodium and potassium) which interests the sports drinkers. On this basis, one researcher claims that coconut water is good for people undertaking strenuous, sweaty exercise [4].

But this sodium (salt) content is a problem too. One cup of coconut water contains 250 mg. Right there, in a couple of glugs, you have one third of the forager's (and our) daily intake of 750 mg per day [5]. So go easy on it!

Let's not forget that coconuts were never part of our ancient ancestors' food supply. They originated in the Pacific islands.

See '*High salt – Calcium Depletion*', [this page](#).

Physical Activity Patterns

Hadza Forager Energy Expenditure same as Westerners



Frank Marlowe ('*Hunter-gatherer Studies*', [Jan 2012](#)), Herman Pontzner and colleagues have questioned whether hunter-gatherers truly expend more energy than westerners [6].

They find that both Hadza and Westerners have similar metabolic and basal metabolisms. Unsurprisingly, the Hadza do more physical activity.

But, surprisingly, they find that **Total Energy Expenditure (TEE)** is the same for both groups. So where do Westerners expend the extra calories?

The fact that Westerners lug around extra body fat made little difference.

The researchers speculate that human bodies, "are evolved to

burn calories at a certain rate – period."

"The way those calories are spent reflects our lifestyle: hunter-gatherers spend more on activity. In contrast, perhaps, "Westerners spend more on inflammatory response, anabolic metabolism (higher muscle mass)..." [7].

Who knows? Much more to be studied on this fascinating finding.

As the authors warn, physical activity is nevertheless necessary for many other health reasons. However, they conclude that to slim down you need to change what you are eating; increasing physical activity will not help much.

My View? Just what I've been saying all along!

But Marlowe, Pontzner & Co have a corker of a suggestion: that the body is programmed to expend a fixed amount of energy – and if it doesn't do it through physical activity then it finds dysfunctional ways, like inflammation. We shall see...

From the Labs

List of Wheat Allergens Grows

[Last month](#) I mentioned the fact that there are far more allergens in wheat than just the gluten. I cite the major ones (like '*lectins*', '*alkyl resorcinols*' and '*alpha amylase inhibitors*') in *Deadly Harvest*, [Chapter 5](#), page 123.

At least twenty allergens were already known about, but the research carries on – and more mischief-makers come to light!

Using the latest sophisticated techniques, researchers have found another **SEVEN** allergenic substances in wheat[8]. They have obscure names like '*thaumatin-like protein (TLP)*' and '*xylanase inhibitor protein-1*'.

We don't need to know the names, just know that each of these newly isolated molecules evoked a potent allergic immune response in healthy volunteers.

High Salt - Calcium Depletion

The body gets rid of excess sodium via the urine – but in doing so, it takes calcium with it. This calcium forms kidney stones,

whilst the drain of calcium from the body contributes to thin bones and osteoporosis.

Now researchers have discovered how it happens. They found a molecule called 'sodium/proton exchanger, NHE3' that has two jobs - regulating the levels of both calcium and sodium in the body [9]. It links sodium to calcium in such a way that, when sodium is ejected from the body, so is the calcium too.

Our view? We all know that too much salt is not a good thing – it is a factor in many mischiefs, of which kidney stones and osteoporosis are just two.

Our ancestral, forager diets contained only the sodium intrinsic to the wild foods they were eating. Their intake is estimated at only 750 mg per day. That is far better than the USDA's recommended maximum of 2,300 mg per day – let alone Americans' ACTUAL consumption of 3,400 mg/day [10]. Remember, these are figures for sodium. Multiply them by 2.4 to get the weight of salt.

See: 'Coconut Water', page 2.

See: 'Preserving Astronauts' Bones' page 2.

More Triclosan Mischief

In 'Myth of a Germ-free World', [April 2011](#), I talked about Triclosan. It is an antibacterial chemical widely used in hand soaps and suchlike. But Triclosan is an 'endocrine disrupter' which means it messes with your hormones.

Now researchers find that Triclosan impairs muscle function [11]. Mice had up to a 25-percent reduction in heart function measures within 20 minutes of exposure to the chemical.

Said one researcher: "The effects of triclosan on cardiac function were really dramatic. This compound acts like a potent cardiac depressant."

In addition, the mice had an 18-percent reduction in grip strength for up to 60 minutes after being given a single dose of triclosan.

My View? I used to be quite easygoing about chemicals like this. But their enormity has crept up on us in just a couple of generations. Triclosan is now all-

pervasive: it is also in mouth-washes, deodorants, toothpaste, bedding, clothes, carpets, toys and trash bags. It pollutes our waterways, our bloodstreams, and mothers' breast milk.

There are limits to how much we can avoid these chemicals at an individual level. The FDA and Environmental Protection Agency are studying whether to place restrictions on the use of Triclosan.

That is where we have to lobby for them to do their job properly. There is absolutely no value in having these pointless yet harmful chemicals in our environment. Our Pleistocene ancestors managed without!

See 'Are Pollutants a Worry?' [April 2012](#).

Social Jetlag, Fatigue & Obesity

Humanity evolved close to the equator where the length of the day doesn't change and where the



sun is at its zenith at 12:00 noon.

Today most of us live outside the equator,

where authorities mess with the clock, and where work patterns ignore night and day.

Does it matter?

Of course it does! Two recent studies point out the drawbacks [12,13]. Our biological clock gets out of phase with our social clock – a phenomenon dubbed 'social jetlag'. As a result we are chronically sleep deprived, tired and prey to many metabolic diseases including diabetes and obesity.

Other studies connect lack of sleep to breast cancer [14], insulin resistance [15], metabolic ageing [16], abnormalities in bone formation and bone marrow [17] and doubled risk of death [18]. That is just a sample: there are many more.

To keep our biological clock synchronized we: "should get plenty of sunlight, keep regular mealtimes, and have uninterrupted sleep in darkness."

My View? Just so. See: 'Sleep Patterns and Campfires', [March 2005](#)

In addition one researcher commented on the harmful health effects of Daylight Savings Time (DST).

I have always admired those quirky U.S. counties and cities which eschew DST and you pass in and out of time zones in the space of a few miles. Good for them. Moreover, even for Standard Time, many governments set their clocks outside their solar time zone. For example the Spaniards, on the same longitude as UK, set their clocks one hour ahead of UK. Bad! We would all be better off if we abandoned DST and set our clocks to 12:00 noon when the sun is at its zenith. If we have to adjust our work patterns to suit, so be it.

No Human-Neanderthal Interbreeding after all?

I have been highly skeptical of claims that humans interbred with Neanderthals 80,000 years ago ('Neanderthal Genes in Us?' [May 2010](#)).

Nevertheless, various studies claim to find some Neanderthal genes in everyone except Africans [19]. And yet others say that if there were interbreeding, it must have been rare ('Neanderthal-Human Sex Rarely Produced kids', [April 2012](#))

Now a clever new study [20] says that we share genes with Neanderthals that go back to our split with them in the evolutionary tree 350,000 years ago. There is no need to invoke interbreeding 80,000 years ago.

Such is the nature of scientific enquiry at the frontiers! We are constantly questioning and dancing ever closer to the truth – wherever that is!

Ancient Native Americans were Diabetes-free

Famously the Pima Indians of the American South-West suffer terribly from obesity and diabetes. Was it always thus?

No, according to some remarkable research [21] on newly discovered coprolites (fossilized feces) which were found in Antelope Cave, Mojave County, Arizona.

These several-thousand-year-old civilizations (including Pima, Pueblans, and Yuma) were already

farmers but the fossils show that they were eating a low glycemic diet. Critically: over 75% of the feces was insoluble fiber.

They were growing and eating high-fiber seed from sunflowers, wild grasses, maize, pigweed and amaranth. Prickly pear was frequently present (see '*Prickly Pear for Diabetics?*' [July 2012](#)).

The researchers calculate that the rapid modern day transition to low fiber, high GI grains is sufficient to explain the rocketing Pima rates of diabetes and obesity today.

Our View? Just so – it is a warning to us all. But we can go one stage better than the ancient Pima and eat proper Bond Precept-conforming plant food.

Web News

Latest Video Clips Uploaded

Evolutionary Medical Anthropology:

5. Sunshine is Vital Human Food

<http://youtu.be/uLzbjd8UqBQ>

6. Naturally Adapted Physical Activity Patterns

<http://youtu.be/y1Z-tWYUWaQ>

Unintended Consequences

Calcium Tablets: Heart Attacks

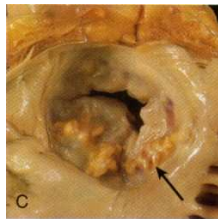
Calcium supplements doubled the risk of having a heart attack, and should be "taken with caution," says new research [22].

The authors note that dietary calcium is taken in small amounts, spread throughout the day.

Supplements, on the other hand, cause calcium levels in the blood to spike harmfully.

They note too, that calcium supplementation is also linked to kidney stones and gut disorders.

Our View? There are all kinds of other hidden consequences that we can only guess at: for example calcium plays a vital role in the



Calcified Valve

electrical signals that trigger the heartbeat. Perhaps calcium spikes are messing with that.

Or again, confused

signaling will lay down calcium in the heart valves. Calcified heart valves are a common cause of heart attack.

Moral: Food is the only honest way to get micronutrients. That way the body sorts it out fine.

Continued from Page 1

Gut Worms and Type I Diabetes

... Seemingly, we are doing ourselves a disservice by keeping ourselves clean of commensal gut worms! But it is a brave soul who would deliberately infect himself with them.

That is, unless it is for medical treatment. As mentioned in '*Worms are Good for You*', [Nov 1999](#), they are used in treating Crohn's disease.

Now the team is testing a whip-worm, *Trichuris suis*, in the treatment of both Crohn's disease and multiple sclerosis.

In all cases it is to do with the effect that worms have in keeping inflammation under control.

Next month: Gestational Diabetes

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