



The science & art of living the way nature intended

# The Bond Briefing

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

**Sunshine is Human Food:** Sunlight Boosts Immune System. **Letter:** Paleo Precepts Improve Blood-work. **Food Ideas:** New Year's Eve Menu. **Ancestral Health:** Dietary Fiber: Successful Ageing. **Recipe:** Green Banana Flour Pancakes. **Q&A:** Vitamin D Quandary; Is Psyllium Fiber OK? **Food Ideas:** Christmas Menu. **News Flashes:** Mental Health – Sunlight Matters Most; Soda Doubles Risk of Type 1 Diabetes; UK Adolescents Drink a Bathtub of Sugary Drinks a Year. **Ancestral Health:** Our Living Gut - Part VI. **Spreading the Word:** New Book – Paleo in a Nutshell; Public Talks; Remastered Video.

## Sunshine is Human Food

### Sunlight Boosts Immune System



In a surprising new discovery, researchers find that the blue part of sunlight energizes immune T-cells [1]. This effect is quite independent of sunlight's ability to cause the skin to make vitamin D.

On the contrary, the light acts directly on the T-cells in the second layer of the skin, the dermis. Under this influence, the T-cells (which can be either killer or helper) have improved ability to move rapidly to the site of an infection or other place where they are needed.

**My View?** In a similar, completely unsuspected, way, there is a mysterious mechanism whereby sunshine somehow blocks auto-immune damage. See: **New-found Factor in Sunlight Helps Multiple Sclerosis**, June 2010 [2,3].

We can but marvel at how our bodies are designed to function in intimate relationship with our environment – and that, in our pride, we think we can simplistically second-guess or even improve it.

No, there is perhaps an infinity of unknowns or as Hamlet put it more eloquently: "There is more in heaven and earth, Horatio, than is dreamt of in your philosophy."

See: **Mental Health: Sunlight Matters Most**, page 3.

## Letter

### Paleo Precepts Improve Blood-work

From Stephen White, MD, West Hills, California, USA

Two years ago, I stopped eating grains and dairy. Before that, I ate a Mediterranean diet, but with lots of whole grains and Greek yoghurt.

I have a genetic cholesterol problem, so I have been on Lipitor (atorvastatin) since it was released about 20 years ago.

Since I eliminated grains and dairy, my total cholesterol (325 baseline, 223 on statin) fell to 197. My HDL good cholesterol (60 baseline, 65 on statin) went up to 95. My LDL bad cholesterol (210 baseline, 122 on statin) went down to 88.

My blood sugar went down from 114 to 85. And this wasn't even a fasting specimen!

I don't know if I'm going to live any longer or be any smarter, but this modest change in diet has clearly caused a major change in the way my body works. My microbiome must be in high spirits. (Actually, I try to nourish my microbiome with well-aged spirits regularly!)

**My View?** Dr White confides that he is a fan of Scottish single malt whiskies – as you can see from our festive season menus (this page), we concur!

Oh, and yes, Dr White's blood-work is a great testament to the Paleo way of life.

## Food Ideas

Do you wonder what Nicole and I eat on festive occasions? Here is New Year's Eve followed by Christmas on page 3. We have sumptuous Paleo-conforming meals but keep the quantities reasonable.

### New Year's Eve Menu



Enlarge: <http://bit.ly/2iazaXL>

### Aperitif:

- Wine - Prosecco
- Smoked salmon
- Raw vegetable sticks
- Dips: guacamole, tahini, salsa

### Main:

- Roasted Quail in Roasted Vegetables (photo above)
- Wine: Côtes du Rhône

### Dessert:

- Prune Truffles [Paleo Harvest](#) [18]
- New Year toast: Bowmore single malt whisky.

For: **Christmas Menu:** see p 3

## Ancestral Health

### Dietary Fiber: Successful Ageing

In a study of what factors were most important in "successful ageing", fiber intake made the biggest difference [4]. 'Successful aging' was defined as including an absence of disability, depressive symptoms, cognitive impairment, respiratory symptoms, > **page 4**

## Recipe

### Green Banana Flour Pancakes

**Yield: 4 pancakes 6" diameter**



Enlarge: <http://bit.ly/2jfUic7>

*Green Banana Flour (GBF) is rich in 'resistant starch' which is non-digestible. It doesn't create the harmful blood-sugar spikes of regular starch. In addition, it is a dietary fiber and feeds 'good' bacteria in the colon. See 'Resistant Starch', [Jan 2014](#) [5], [Almond flour substitutes Jan 2015](#) [6]*

2 ounces (55 g) green banana flour\*  
1 egg, beaten  
10 Tbsp (150 ml) sugar-free nut milk (e.g. almond milk) can also use plain water.  
Olive oil spray  
1 tsp xylitol (or melted 85% chocolate)

Put the GBF into a mixing bowl. Make a well in the centre of the flour and pour in the egg.

Whisk the egg into the flour and gradually add in the almond milk.

Keep whisking until you have a smooth batter, use a spoon to scrape bits of batter that maybe stuck to the sides of the bowl and whisk them in. Add  $\frac{1}{2}$  teaspoon of oil into the batter and whisk this in.

It is best to let the batter rest for about 30 minutes but you can cook it straight away with good results.

\* Some sources of green banana flour are rather gritty and greyish in color. We found one that does a pancake indistinguishable from a regular one: [www.bananahealth.co.uk](http://www.bananahealth.co.uk).

In USA, [www.bananaflour.com](http://www.bananaflour.com) works just fine too, but is a little greyer.

Heat a frying pan and add a little drop of oil and swoosh it around to cover the base of the pan.

Pour about 2 Tablespoons of batter onto the pan and tilt the pan sideways to evenly spread out the batter. Do this quickly before the base of the pancake starts cooking.

Cook on medium heat for 1 minute or until air bubbles appear. Using a spatula lift the edge of the pancake to check if the underside is cooked to a nice golden brown.

Toss the pancake to turn it over (or use the spatula) and cook the other side for no more than 1 minute.

Roll up on a serving plate and sprinkle with the xylitol or drizzle with melted chocolate.

## Questions

### Vitamin D Quandaries

**Q.** *My doctor said I am vitamin D deficient and should take a supplement. I am surprised as we eat oily fish virtually every day although I hear that no one in higher latitudes (like us in London, UK) gets any vitamin D from winter sunshine.*

*I know that we store it up during the summer but how do we know if it is sufficient to get us through the winter months? And it is harmful to overdose on supplements. Help!*

**A.** You are right to be suspicious. First off, the standard vitamin D test, the "Ligand-Binding Assay", is highly inaccurate. One study found that "whether an individual is found to have low or normal vitamin D status is a function of the laboratory used." [7]. Test results, on the same blood sample, could double from one laboratory to the next.

The gold standard for measuring vitamin D is the "Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)" test, so make sure you have that done.

Secondly, my incessant drumbeat is to get your vitamin D from the sun.

**Get your Vitamin D from the SUN!**

That way, your body takes just what it needs and in the right cocktail of vitamin D variants.

In high latitudes (like London, UK at 54°N) that means making the most of summer sun. Dr Michael Holick sets out minimal exposures according to skin pigmentation, latitude and time of year. See: [Sunshine is Human Food, Oct 2003](#) [8] [How Much Sunshine?, April 2011](#) [9].

My Anglo-Saxon ancestors would have toiled outdoors all daylight hours, come rain or shine. We can be sure that they were not vitamin D deficient. We do not have to emulate them! But at a minimum in my view, we should, in summer, get at least an hour a day between 11:00 am and 3:00 pm (daylight savings time), WITHOUT sunscreen. See also:

[Vitamin D Supplement View, Nov 2010](#) [10]. [Vitamin D: from Sun or Food? Nov 2011](#) [11]. [Vitamin D Targets too low: June 2011](#) [12]

### Is Psyllium Soluble Fiber OK?

**Q.** *To be more regular, I take a huge, heaping scoop of organic, whole husk psyllium mixed with water every morning. But is psyllium a grain?*

**A.** Psyllium is not a grain or grass seed. As such it is not tarred with the same brush. Indeed, studies indicate that psyllium improves glucose control even in diabetics [13]. In my view you are quite safe in continuing with psyllium.

However, your question raises a larger issue. That is the difficulty in obtaining a high fiber intake with modern plant food. What seems to be missing is not so much soluble fiber (like psyllium) but inert, indigestible ones which pass right through the digestive system unchanged.

As found in forager stools, they are mostly stringy cellulose and lignin fibers but some 11% is foreign matter like feathers, egg-shell, fish scales, and insect carapaces. See: [Indigestible Fiber Intake, Aug 2011](#) [14]. [Defining Dietary Fiber, Aug 2016](#) [15]

I will write further on this matter in an upcoming [#BondBriefing](#).



## Food Ideas

On page 1, we gave our festive season menus for New Year's Eve. We continue:

### Christmas Menu

#### Starter:

- Smoked Trout slices
- Raw Vegetable crudité's
- Wine: Prosecco

#### Main:

- Wild Boar Ragout (similar to 'Hunters Stew', in [Paleo Harvest](#) [16] and online [17])
- Roasted Summer Vegetables. (recipe in [Paleo Harvest](#) [18])
- Wine: Côtes du Rhône

#### Dessert:

- Chocolate Delight (recipe in [Paleo Harvest](#) [16])
- Digestif: Laphroaig single malt whisky

## News Flashes

### Mental Health: Sunlight Best Fix



A very well designed and solid study confirms what we feel instinctively: that sunlight is vital to our mental well-being [19].

Basically the study found that the more there is sunshine, the less is the amount of mental disorder. This applied to everyone, not just those who are depressive or suffer from SAD, ("Seasonal Affective Disorder").

Say the researchers: "Therapists should be aware that winter months will be a time of high demand for their services. With fewer sun time hours, clients will be particularly vulnerable to emotional distress."

See: **Sunlight Boosts Immune System**, p 1.

### Near Paleo Diet Calms Crohn's Disease

Researchers carried out studies on Crohn's disease sufferers using the "Specific Carbohydrate Diet" (SCD). This diet excludes all grains, sugars (except for honey), processed foods, and dairy.

In other words, in its essentials, it emulates the Paleo Diet.

They found massive changes in the types of bacteria in the colon together with remarkable improvement in the symptoms of colitis and Crohn's disease [20].

In passing the reviewers observe that ADDITIVES can be a factor in Crohn's disease. They finger common dietary emulsifiers, carboxymethyl cellulose (E number E466), maltodextrin, and polysorbate-80 (P80).

**My View?** In the matter of inflammatory bowel diseases, all fingers are pointing at the sufferer's lifestyle and its mismatch with the Paleo Lifestyle as the reason. Worse, this study raises the probability that common, "safe" additives are a factor too.

### Sodas Double Risk of Diabetes T1

There is a hybrid kind of diabetes called "Latent Autoimmune" or "LADA". It shares features of both Type 1 and Type 2. In particular it has an autoimmune aspect where it attacks the body's own tissues such the pancreatic beta cells..

Swedish researchers, in a data-mining exercise on a 6 year population study, find that those who consumed two servings of sodas a day had DOUBLE the risk of developing LADA [21].;



A serving was 200 ml, 6.75 oz or about the size of a classic bottle of coca-cola.

Each ADDITIONAL serving increased the risk of LADA by 15%.

Two servings per day also DOUBLED the risk of Type 2 diabetes and a 20% risk increase per serving

#### Diet Sodas too

Curiously these results applied to both sugar AND diet versions of the drink. Since this study looked at CORRELATIONS it can shed no light on the reasons or causes.

The researchers suggest that sweet taste messes with appetite and insulin control; that both drinks lead to visceral fat (a source of inflammation whose immune reaction attacks the pancreatic beta cells); that it messes with our gut

bugs; that many consumers upped their intake because their hyper-glycemia made them thirsty; that many consumers of diet drinks had switched from sugar-drinks because they were already overweight and pre-diabetic.

**My View?** It is easiest to over-dose on sweetness by quaffing sodas of all kinds (see next item). The take-home message seems to be, don't give them house room. That is very Paleo too.

### UK Adolescents Drink a Bathtub of Sugary Drinks a Year

So say calculations from Cancer Research UK [22]. That is a sugar intake THREE TIMES the official maximum advice.

Says Cancer Research: "Obese children grow into obese adults, and that increases the risk of cancer as well as other diseases." But Cancer Research sees hope in the UK government's plans for a sugar tax, and measures to impose sugar reductions in processed foods.

**My View?** "Our naturally adapted lifestyle was surrounded by invisible fences. Food was hard to get, sugar was unavailable, grains and potato did not exist." - **Editorial: Death by Toast & Fries**, [Feb 2006](#) [23]

So this appeal to authority to reinstate "invisible fences" like sugar taxes, is actually Paleo conforming.

## Ancestral Health

### Our living Gut - part VI

[Last month](#) [24] We saw how gut dysbiosis is a factor in Bone Health and Bladder complaints. We continue:

#### Diversity of Gut Flora prevents Allergies

"Children acquire intestinal micro-flora from their environment, and in our society they are probably exposed to insufficient bacteria that are necessary for the immune system to mature," says Thomas Abrahamsson, at Linköping University, Sweden [25]. Gut microbe diversity was significantly greater in healthy children at one month of age compared to those

children who later developed allergies.

Diversity in certain bug groups appears to be particularly important: 'Proteobacteria' (common in children who grew up on livestock farms) and 'Bacteroides' which fight inflammation.

Meanwhile, *Bifidobacterium* in dairy products (notably yogurt) is discredited. The researchers did not find any protective effect. This chimes with the virtual absence of *Bifidobacterium* in Hadza forager stools, See 'Forager Stools' [July 2016](#) [26].

### Stress Upsets Gut Bacteria and Immune Response

Up to now, the focus has been on how our gut microbiome can affect many aspects of our health. But it can be a two-way street: according to this study, stress actually changes the balance of bacteria that naturally live in the gut [27]. The microbiome became less diverse, and had greater numbers of potentially harmful bacteria, such as *Clostridium*. This suggests that, not only does stress change the bacteria levels in the gut, but that these alterations can, in turn, impact our immunity.

**Next Month: Gut Bugs Influence Behavior, Mood and the Brain.**

### Continued from Page 1

**Dietary Fiber: Successful Ageing** ...and chronic diseases including cancer, coronary artery disease, and stroke.

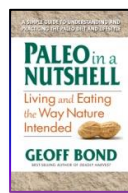
Say the researchers: "We found that those who had the highest intake of total fiber actually had an almost 80 percent greater likelihood of living a long and healthy life over a 10-year follow-up."

In a comment on the absence of sugar as a major factor, the researchers note that their subjects were old people who had no habit of quaffing sugar sodas. See: **Sodas Double Risk of Type 1 Diabetes**, p 3.

See also the ongoing series: **Our Living Gut**, page 3 and **Is Psyllium Soluble Fiber OK?**, page 2.

### Spreading the Word

**NEW BOOK: Paleo in a Nutshell**



Square One Publishers of New York plan to publish my new book, in March. (Draft cover)

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

**Lecture Tour:** California, January 16th, 2017 to March 10th 2017. Private talks except where stated.

#### Public Talk - Advance Notice

Palm Springs Library, CA  
March 07 2017.

How to Grow Older without Feeling Old: Insights from our ancient origins

#### Public Talk - Advance Notice

Green Templeton College  
Oxford University

March 22, 2017

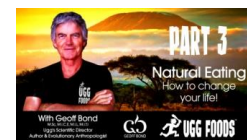
Successful ageing: How to restore, rejuvenate and maintain normal functionality in advancing years.

#### Public Talk - Advance Notice

Paleo Society, Oxfordshire Spa  
Hotel, Thame, UK

Date: March 28th 2017 at 7:00 pm  
Title: TBA

**Video** for [www.Uggfoods.com](http://www.Uggfoods.com) :



Remastered by Georgiades Productions. **All About Paleo - Part III.**  
<https://youtu.be/qXkRKXINOTY>



**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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