



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

**Q of Month:** First Humans in America. **Recipe:** All Banana Cake. **Spreading the Word:** Paleo in a Nutshell is here! **Quote:** Life Strait-jacket – Break Free! **Hints & Tips:** Step-count on Prescription? **Q&A:** Practising Paleo-Veganism; Eating before Exercising. **Health Policy:** Healthier Diet would Reduce Greenhouse Gases. Hormone Replacement Therapy (HRT) – What to Believe? Media Hype, Journal Hype. **Generational Epigenetics:** Cocaine Users Father Dopey Sons. **Unintended Consequences:** Probiotics have Perverse Effects. Globalization – New Cause of Death. **Ancestral Health:** Our Living Gut – part IX.

## Question of Month

### First Humans in the Americas



Enlarge: <http://bit.ly/2qkSi82>

**Q.** The “Cerruti Mastodon Find” in San Diego suggests that humans lived in America far earlier than originally thought. The bones are about 130,000 years old. The smashed bones, molars and tusks suggest that humans did it. But no human remains were found...

**A.** This study was published (albeit as a simple ‘Letter’) in the prestigious journal, Nature [1] – so we must cut it some slack.

Even so, paleontologists (fossil scientists) have, usually, only the flimsiest of evidence but it doesn't stop them constructing imaginative hypotheses to fit that evidence.

It would be extraordinary if 130,000 year-old bones were NOT broken; that is the common feature of 99% of fossils. Even more so in earthquake territory like San Diego.

The skeptic will say that NO human remains more than 12,000 years old have yet been found in either of the Americas, North or South. Moreover, genetic studies on dozens of Native American tribes, from the Inuit in the north to the Patagonians in the south, find that they had their origins in Asia as recently as 12,000 to 15,000 years ago. >**p.2**

## Recipe

### All Banana Cake



Enlarge: <http://bit.ly/2pWKC9B>

**Yield: up to 16 servings**

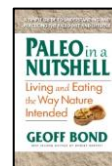
This recipe uses green banana flour instead of nut flour: See **Almond flour substitutes**, [Jan 2015](#) [2]. It is lower in calories (170 per 100g), rich in ‘resistant starch’ (a dietary fiber) and doesn't spike blood sugar.

2 eggs, omega-3  
 $\frac{3}{4}$  cup green banana flour (100 g)  
 2 ripe bananas, mashed (240 g)  
 2 teaspoons lemon juice  
 $\frac{3}{4}$  teaspoon bicarbonate of soda  
 $\frac{1}{2}$  cup coconut milk  
 1 tablespoon vanilla extract  
 3 tablespoons diabetic orange marmalade (optional)  
 2 Tblsp erythritol, or to taste  
 $1\frac{1}{2}$  teaspoons ground cinnamon  
 2 tablespoons poppy seeds  
 zest of large orange, pref. organic  
 olive oil spray

1. Beat the eggs with an electric hand-mixer in a large mixing bowl.
2. Combine with all the other ingredients.
3. Spray a round baking mold (approx 8-inch diameter) with the olive oil and fill with the mixture.
4. Bake in a hot oven at 285°F (140°C) for about 30 minutes. Check center for doneness.

## Spreading the Word

### Paleo in a Nutshell is Here!



Geoff's new book is now fully available  
 Check it out at:

[www.paleo-harvest.com](http://www.paleo-harvest.com)

### Amazon links

**USA:** <http://bit.ly/2P-Nutshell>

**UK:** <http://bit.ly/2P-Nutshell-UK>

## Quote

### Life Strait-jacket: Break Free!

“We must be willing to get rid of the life we have planned so as to have the life that is waiting.” – Joseph Campbell, professor of comparative mythology.

To be mentally well adjusted like a forager, the deepest parts of our psyche need nourishing. Campbell has remarkable insights. See: **Myth & Ritual**, [Chapter 8](#), p 221 *Deadly Harvest* [3].

Also Aldous Huxley's insights in: **Nature's Misfit with Modern World**, [Dec 2010](#) [4]

## Hints & Tips

### Step-count on Prescription?

Are you having difficulty gearing yourself up to do your 10,000 steps a day? (**10,000 Steps a Day?** [July 2014](#) [5]) Then a doctor's prescription could be the answer.

According to one study, patients prescribed 10,000 steps a day together with a pedometer to measure them, increased their performance by some 20% [6].

Moreover, their vital signs such as blood sugar levels and insulin resistance sharply improved. > **p.4**

## Questions

### Practising Paleo-Veganism

**Q.** I've been practicing what you preach for 5 years and I have much better energy levels. Thank you.

However, for environmental reasons, I am moving to a vegan diet. Do you have any insight so that I don't undermine my health. e.g. issues such as B12 supplements. I already take vitamin D.

**A.** As I say in [Paleo in a Nutshell](#), chapter 5, it **IS** possible to follow a Paleo diet at the same time as avoiding all animal products. In this I assume you also exclude eggs; some vegans even exclude honey.

**Vitamin B12:** Yes, this is one nutrient that is impossible to obtain on a strict vegan diet. That means supplementation: Just 2 micrograms a day should be enough. And you **MUST** do it! See: [The Vegan in his Blindness, April 2000](#) [7]

**Omega-3:** It is also difficult to get enough omega-3. You have to focus on vegetable sources such as flax-oil, hemp-oil, and Canola (rapeseed) oils.

Vegetable sources provide the form of omega-3 called alpha-linolenic acid (ALA). But do be aware that ALA is second-best to the fish-oils DHA & EPA. The human body is very inefficient, or can fail entirely, to convert the ALA into something it can use, namely DHA and EPA.

See: [Flax Seed Oil for the Vegan and Omega-3: Plant vs. Fish June 2006](#) [8]

**Protein:** Finally, you do have to keep up protein intake. For a vegan, this just leaves you with tree nuts. (Don't be lured into the conventional vegan fall-backs: legumes like soy, lentils and beans!) See: [Protein in Focus, Jan 2016](#) [9].

### Eating Before Exercising

**Q.** When you play squash or go for a long run, how many hours before do you eat and do you have a small snack before you go?

**A.** It is common wisdom that when you eat a meal it diverts the blood supply away from the muscles towards the digestive system.

So, as a matter of performance and digestive comfort I only eat quite

lightly before heavy physical activity.

### High Carbs Nix Exercise Benefits

Now a study adds a new dimension to the question. In response to a high starch & sugar meal, some genes in fat tissue get switched on and others switched off in ways which seriously undermine the benefits of exercise [10].

In particular, a high carb meal up to two hours before exercise harmfully affected hormone reactions related to glucose transport, insulin signaling, and fat oxidation. In contrast, exercising when hungry produced favorable responses.

What would a forager do? Needless to say, foragers never eat a high carb meal like the one used in the tests. It purported to represent a typical English breakfast: white bread, cornflakes, semi-skimmed milk, orange juice, margarine, strawberry jam and sugar!

So I'll stick to my soft boiled egg for breakfast and go for my early morning run with a clear conscience...

## Continued from Page 1

### First Humans in the Americas



Finally, as you say in your question, no human bones were found nor was there the slightest sign of human habitation.

That is a dead giveaway: everywhere hunter-gatherers go, both ancient and modern, they leave a trail of rubbish, detritus, fire-places, arrow-heads, knapping flakes, fossilized bowel movements, and all the rest.

The mastodon paleontologists can only offer what they describe as 'cobbles' – a few rounded stones that look like they could have been fashioned by human hand to use as hammers and anvils to smash bones – or not, as the case may be. To be fair, the researchers do not suggest that it was our ancestors, *Homo sapiens*, who might be implicated, but that it could be another species of *Homo*, perhaps

*Homo-erectus* (like Neanderthals). But there is no evidence that *Homo erectus* made it to the Americas either...

**My View?** The simplest explanation is also the most likely. In my view, the mastodon bones got like that due to natural processes; humans had nothing to do with it. They were still innocently living their lives half a world away in east Africa.

## Health Policy

### Healthier Diet would Reduce Greenhouse Gases

Researchers looked into what would happen if Americans shifted their diet modestly in the direction favoring the reduction of greenhouse gases [11]. Reductions would come from both the food system and the health care system.

In their calculations, the researchers eliminated red and processed meats, doubled fruit and vegetable intake, and increased peas and beans to replace the meat protein removed.

Refined grains were partially replaced with whole grains. Sugar was not reduced. Neither were dairy, eggs, fish or non-red meat.

Even with these modest changes, the researchers find "a huge effect". The risk of coronary heart disease, colorectal cancer and Type 2 diabetes reduced by up to 40%. Health care costs dropped \$95 billion yearly and greenhouse gas emissions dropped 222 kilograms per person per year.

According to the researchers the healthier diets could contribute up to 23% of the U.S. Climate Action Plan goal – which is to reduce net greenhouse gas emissions 17% below 2005 levels by 2020.

More ominously the researchers say: "Diet change must be part of successful climate change mitigation policies."

**My View?** In spite of these being only modest moves in the direction of a Paleo diet there would be remarkable improvements in population health, cost savings, and even greenhouse emissions.

Maybe the zealots of the climate change industry will do what no one else can – move the western diet in the direction of a Paleo one! See also:

**Bond Protocol: Can Farms Cope?** [May 2011](#) [12]

**Sustainability of Food Supplies,** [April 2004](#) [13]

**Schenk: Recovering Vegetarian,** [June 2012](#) [14]

### **Hormone Replacement Therapy (HRT) – What to Believe?**

The 'facts' that most women and clinicians consider in making the decision to use HRT or not are frequently wrong or incorrectly applied says Prof. Robert D Langer of the University of Nevada [15].

He should know, he was one of the principal investigators of the Women's Health Initiative (WHI) whose data was used in inflammatory ways to cast doubt on the safety of HRT.

These incendiary reports "were highly misleading." They indicated that the study was stopped because HRT caused breast cancer and heart attacks, when in reality the study was stopped for more subtle reasons and there was **NO** statistically significant risk of either breast cancer or heart attacks. Nonetheless, that stunning report quickly resulted in women across the world abandoning HRT.

Prof Langer points out that the second half of the WHI trials found **REDUCED** rates of breast cancer and heart attacks – the **OPPOSITE** of the results in the first paper. Those results, reported 2 years after the initial paper, were lost in the by-then well-established climate of fear.

As a result says Prof, Langer, not only have countless women been denied menopausal symptom relief but they have also been denied the other benefits of HRT- including protection against bone loss and reduced risk of fracture.

**My View?** I was skeptical of the original study at the time -- as I wrote in: **Hormone Replacement,** [Aug 2002](#) [16]. I followed this with the

debunking in: **HRT OK after all,** [Sept 2013](#) [17] – but who remembers it?

This experience highlights a terrible dilemma: often scientific results are contradicted by later studies. But only the first gets any publicity.

Now Prof. Langer hints at a darker dimension: self-promoting scientists first distort and then rush out studies to obtain prestige and notoriety.

That is another debate. The world is now overflowing with jobbing scientists who have none of the genius, intellectual honesty or integrity of a Darwin, Newton or Galileo. See next article

### **Media Hype, Journal Hype**

On February 4, 2014, The New York Times published an editorial "**Overselling testosterone, dangerously**", in which it claimed that the rise in testosterone prescriptions was medically unwarranted, and that scientific studies suggesting an increased risk of cardiovascular disease (CVD) provided "the most compelling evidence yet that many American men have embarked on a perilous course of overtreatment" [18].

In the minds of many, the NY Times has a reputation for responsible journalism, so this editorial carried much weight.

However, according to researchers at Boston University School of Medicine, this was an egregious example of how controversial and weak studies are publicized by the media – including the NY Times. Worse, they couple them with a narrative that is either false or with little scientific basis [19].

In general, the Media and Scientific journals often conspire to exaggerate, misinform and distort the message to the public. They thus harm public health and policy.

The authors believe the blame for misleading the public should be shouldered equally by journalists, scientists, journal editors and research institutions.

**My View?** I spend much time debunking sensationalist newspaper reports. And, in my experience, the broadsheets (like

LA Times, NY Times, Washington Post, etc) are just as guilty as the tabloids.

But it is devilishly hard to reverse the media message even after it has been shown to be wrong.

See: **Hormone Replacement Therapy (HRT) – What to Believe?** previous article

### **Generational Epigenetics**

#### **Cocaine Users Father Dopey Sons**

Cocaine use in dads at the time of conception leads to sons at risk of learning disabilities and memory loss [20].

In effect, genes in the offspring's brain vital for the production of the enzyme 'D-serine' were switched off leading to impaired memory formation.

**My View?** Evidence is piling up to show that fathers cannot get away with lousy lifestyles if they are to father healthy children.

See: **Ancestor's Lapses Visited on us,** [Dec 2010](#) [21]

### **Unintended Consequences**

#### **Probiotics have Perverse Effects**

In fat rats with "grossly dysregulated" gut health (thanks to being fed junk food) the probiotics *bifidobacterium* and *lactobacillus* positively changed the bacterial make-up in their digestive tract and benefited brain function, preventing spatial memory loss [22].

On the other hand, rats on a healthy diet were harmed by the same probiotics.

Say the researchers: "probiotics must be used with caution. The challenge is determining which beneficial microbes are absent."

**My View?** Too true. The ideal profile of gut bacteria is incredibly complex and in a constant state of dynamic flux. We shouldn't even try to micro-manage it. But we don't need to! – just live the way nature intended and the gut bugs sort themselves out just fine.

See my serialization: **Our Living Gut** of which the latest segment (Part IX) is this page.

**Globalization: New Death Cause**

A study by no less an authority than the Federal Reserve Board finds that the "large economic shock" of global trade liberalization has led to higher rates of suicide and related causes of death [23].

These deaths are concentrated among whites, notably white males, mainly because they were predominantly employed in manufacturing industries which have moved to foreign parts.

**My View?** A forager man's ability to provide for his family is vital to his sense of identity and importance. Remove it and the loss of self esteem and self-worth is catastrophic.

Seemingly, modern men are no less affected. See **The Modern Workplace for Men and Women, Chapter 8**, [24] page 204, *Deadly Harvest* [25].

**Continued from Page 1**

**Step-count on Prescription?**

**My View?** There can be something powerfully psychological about being set a target and then having

to answer for it – even though it is to an inanimate object like a pedometer. Who wants to be humiliated by a machine!

**Ancestral Health****Our living Gut – part IX**

*Last month* [26] we saw how gut dysbiosis is a factor in **Cognitive Flexibility**. We continue

**Toddler Temper and Gut**

Michael Bailey, PhD, and team at The Ohio State University studied microbes from the gastrointestinal tracts of children between the age of 18 and 27 months, and found that the abundance and diversity of certain bacterial species impact behavior, particularly among boys.

They found that children with the most genetically diverse types of gut bacteria exhibited positive mood, curiosity, sociability and impulsivity.

In boys only, researchers reported that extroverted personality traits were associated with the abundances of microbes from the *Rikenellaceae* and *Ruminococcaceae*

families and *Dialister* and *Parabacteroides* genera. [27]

In girls, behaviors like self-restraint, cuddliness and focused attention were associated with a lower diversity of gut bacteria, while girls with an abundance of Rikenellaceae appeared to experience more fear than girls with a more balanced diversity of microbes.

"It is certainly possible that the types or quantities of food that children with different temperaments choose to eat affect their microbiome", says co-author Lisa Christian, PhD.

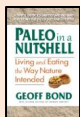
Adds Dr. Bailey. "There is definitely communication between bacteria in the gut and the brain, but we don't know which one starts the conversation."

**Next Month: Metabolic changes & Microbe diversity decimators**

**Spreading the Word**

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

Talks to private organizations



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**Tel:** +357 99 45 24 68 **Skype:** gvlbond  
**email:** [admin@NaturalEater.com](mailto:admin@NaturalEater.com)

**1** 27 April 2017, Vol 544, Nature, 479 Letter doi:10.1038/nature22065, A 130,000-year-old archaeological site in southern California, USA, Steven R. Holen et al.

**2** <http://bit.ly/1P6NoCg>

**3** <http://bit.ly/2rIFbwh>

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**6** Stella S. Daskalopoulou et al. Physician step prescription and monitoring to improve ARTERial health (SMARTER). Diabetes, Obesity and Metabolism, 2017; DOI: 10.1111/dom.12874

**7** <http://bit.ly/1wmpaap>

**8** <http://bit.ly/2pUxPah>

**9** <http://bit.ly/2bLVMHG>

**10** Dylan Thompson et al. Feeding Influences Adipose Tissue Responses To Exercise In Overweight Men. American Journal of Physiology - Endocrinology And Metabolism, 2017; ajpgendo.00006.2017 DOI: 10.1152/ajpendo.00006.2017

**11** David A. Cleveland et al. A healthier US diet could reduce greenhouse gas emissions from both the food and health care systems. Climatic Change, 2017; DOI: 10.1007/s10584-017-1912-5

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**15** 1. R. D. Langer. The evidence base for HRT: what can we believe? Climacteric, 2017; 20 (2): 91 DOI: 10.1080/13697137.2017.1280251

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Molecular Psychiatry, 2017; DOI: 10.1038/mp.2017.8

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**22** M J Morris et al. Cafeteria diet and probiotic therapy: cross talk among memory, neuro-plasticity, serotonin receptors and gut microbiota in the rat. Molecular Psychiatry, 2017; DOI: 10.1038/mp.2017.38

**23** Trade Liberalization and Mortality: Evidence from US. Counties. Justin R. Pierce, Peter K. Schott, Working Paper 22849, [www.nber.org/papers/w22849](http://www.nber.org/papers/w22849), National Bureau of Economic Research, November 2016

**24** <http://bit.ly/2rIFbwh>

**25** [www.deadlyharvest.com](http://www.deadlyharvest.com)

**26** <http://bit.ly/2q8JofX>

**27** Michael T. Bailey. Gut microbiome composition is associated with temperament during early childhood. Brain, Behavior, and Immunity, 2015; 45: 118 DOI: 10.1016/j.bbi.2014.10.018