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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

**Jungle Lore:** Defining Dietary Fiber. **Jungle Predators:** More Big Sugar Skullduggery. **News Flashes:** Paracetamol (Acetaminophen) during Pregnancy/Autism Link; Death – Low Physical capacity Second only to Smoking. Beware 'Off' Fish-oil Capsules. **Food Ideas:** Paleo Panna Cotta. **Q&A:** Lactobacilli & Celiac Disease. **Hints:** More about Gelatin; Dieting – think Positive; Meal Size & Timing. **Ancestral Health:** Mouthpart Under-development in Westerners; Our Living Gut III. **Letter:** How to Meet Diabetes II & Win. **Spreading the Word:** New Video clip Q&A mash-up.

## Jungle Lore

### Defining Dietary Fiber

We all know what 'dietary fiber' is, right? Not so fast. As Dr Erica Sonnenburg of Stanford University School of Medicine, says: "It is a problematic term commonly employed for lack of a better option." [1]

The definition of dietary fiber has evolved since the concept was first introduced in the 1950s [2]. Different official organizations have different definitions; worse, laboratory tests for "dietary fiber" for use on nutritional labels, are a highly variable and inaccurate measure.

Such tests commonly neglect many types of carbohydrates, such as inulin, which microbiota *do* ferment in the colon but, contrariwise, *do* include non-carbohydrate entities like lignin. In addition, the term 'dietary fiber' often includes not only microbe food but also those carbohydrates, such as cellulose, that pass right through the colon unchanged and only serve a bulking role. [3] Mind you, foragers *do* consume large quantities of indigestible fibers – 'roughage' my grandmother would have called it.

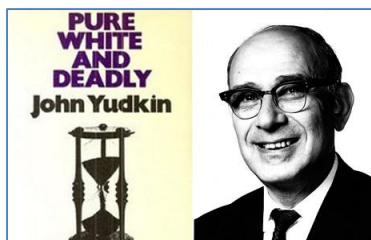
A large part of a forager's diet comes from underground tubers which they mostly eat roasted. The tubers take a lot of chewing. Typically, a tuber such as //ekwa (*Vigna frutescens*) contains up to 40% indigestible fiber [4]. The forager chews the mouthful for some time to extract the juices and then spits out the quid of fiber which is like a ball of string.

> p.3.

## Supermarket Jungle Predators

### More Big Sugar Skullduggery

Back in [March 2014](#) [5] I reported on how Prof. John Yudkin, with his 1972 book *Pure, White and Deadly*, brought down a torrent of vilification from Big Sugar's front organizations. They almost ruined his career.



Now a remarkable article in the USA doctors' trade journal, JAMA reports on the discovery of secret Big Sugar documents from the 1960s and 1970s [6].

They reveal a cynical collusion with scientists to deliberately underplay studies which link sugar to coronary heart disease (CHD) and to shift the blame to saturated fats instead.

The investigators uncovered secret letters between the Sugar Association's director of research, John Hickson, and Frederick Stare, head of Public Nutrition at Harvard University.

Hickson paid Stare and his assistant Dr Mark Hegsted \$50,000 in today's money to discredit research showing links between sugar consumption and CHD.

Thus they dutifully did – in a paper published in the prestigious *New England Journal of Medicine* [7]. They recommended instead that saturated fats be demonized and that Americans replace them with carbohydrates like sugar. > p. 4.

## News Flashes

### Paracetamol (Acetaminophen) During Pregnancy/Autism Link

Autism and ADHD rates were increased in boys when born to mothers who used acetaminophen during pregnancy [8].

The researchers surmise that this drug, which is designed to work on adult brains, messes with the growing brains of fetuses.

### Death: Low Physical Capacity is Second only to Smoking

A 45 year-long study on middle aged men found that those with the lowest aerobic capacity had 42% increased risk of death compared to those who had the highest aerobic capacity [9]. Those with middling aerobic capacity had 21% increased risk.

Say the researchers, to be out of condition at age 45 is as life-threatening as being a smoker.

### Beware "Off" Fish Oil Capsules

Researchers found that some 83% of fish oil supplements sold in New Zealand were oxidized beyond safe and authorized levels [10].

When fed to pregnant rats, 30% of the newborn pups died within two days of birth. The mothers also had higher levels of insulin resistance.

**My View?** Omega-3 oils are known for their fragility and instability. All fats when oxidized are highly toxic. Best stick to eating the real fish – if it is "off", you will know it! See: **Second-guessing Fats**, [Jan 2012](#) [11].

**Oxidized fat promotes atherosclerosis**, [July 1998](#) [12].

## Food Ideas



### Paleo Panna Cotta

**Yield: 8 servings**

(Cupcake size)

*Panna cotta is an Italian dessert made from dairy cream. It is often served with a berry coulis or chocolate sauce. Here we propose a fully Paleo, non-dairy recipe:*

- 1 can full-fat coconut milk (about 14 ounces, 415ml)
  - 1 tablespoon unflavored gelatin (see: [More about Gelatin, this page](#))
  - 1 tablespoon honey
  - 4 tablespoons erythritol
  - 1 ½ teaspoons vanilla extract
  - optional for decoration: strawberry halves or seasonal berries
1. Pour 1 cup coconut milk into a small saucepan and sprinkle evenly with the gelatin.
- Let the milk sit for 5 minutes to allow the gelatin to 'bloom'.
2. Heat the milk and gelatin over medium heat, stirring constantly, until gelatin is dissolved and milk begins to steam (do not boil).
  3. Stir the remaining coconut milk, honey and erythritol into the warm milk and whisk until all the ingredients are dissolved.
  4. Remove the pan from the heat and stir in the vanilla extract. Let the mixture cool for 10 minutes.
  5. Divide the coconut milk mixture evenly among small ramekins or glasses.
  6. Cover tightly with plastic wrap, making sure the plastic wrap does not touch the surface of the

cream. Refrigerate for about 5 hours, until set.

7. Optional: Prior to serving, decorate with, e.g., seasonal berries.

## Questions

### Lactobacilli and Celiac Disease

**Q.** *I am confused, I hear that the gut bacterium, lactobacillus, can be helpful in cases of celiac disease. Does that have anything to do with consuming Dairy?*

**A.** No! Lactobacilli (there are hundreds of strains) get their name from their propensity to convert sugars into lactic acid. The body produces lactic acid all the time from normal metabolism and physical activity.

On the other hand, there is some evidence that celiacs lack lactobacillus in their guts and that seeding their guts with probiotic lactobacillus can help [13].

**My View?** Even if the probiotic works, it is just papering over the cracks. We should all be avoiding gluten, not eating this poison and then taking what you hope is an antidote!

## Hints & Tips

### More about Gelatin

Gelatin alternatives for the vegetarian (or squeamish) are, for example, agar agar or xanthan gum. See: [Gelatin Good or Bad? April 2009](#) [14],

As for gelatin itself, it is basically collagen extracted from various animal sources. It is solid protein and so some people use it to boost protein intake by adding it as a thickening agent to soups, stews and so forth.

However, as I explain in: [Eat Collagen to Make Collagen?, July 2013](#) [15] the digestive system splits gelatin down into its amino acid parts and the body then uses these building blocks as it sees fit. It may well not decide to re-build collagen, even though that is what you want it to do.

Most commercial gelatin comes from factory-farmed animals. We

prefer to pay a little extra and buy organic from grass-fed beef.

You can also make it for yourself. Take a pot of chicken stock, move the gelatin from the liquid and let it dry. Mind you, it will still keep the chicken flavor.

### Dieting: Think positive

Psychological research finds that the most successful strategy is to focus on the 'good' foods that you like to eat and not to obsess about giving up the 'bad' foods that you like [16]. They found that:

- Unsuccessful dieters were often low self-control individuals who listed rules that restricted foods that they did not like. Successful dieters listed foods that they should consume.

- When thinking of unhealthy foods low self-control individuals think of foods that they really like -- their favorite snacks. High self-control dieters think of foods that they like but could reasonably forgo.

- When thinking of healthy foods, low self-control individuals think of foods they do not like (e.g., Brussels sprouts). High self-control individuals think of foods they enjoy eating (e.g. strawberries).

Opine the researchers: "focus specifically on those healthy foods that you really enjoy eating."

### Meal Size and Timing

This is a question often asked but there has been little evidence to guide us – apart from the forager template – of which more later.

### Regularity of Meals

According to one study, eating meals IRREGULARLY is linked to metabolic syndrome including obesity and high blood pressure [17]. In contrast REGULAR eating led to lower peak insulin, and lower fasting cholesterol, both total and LDL.

### Calorie spread through the Day

In another study, of what the authors call 'chrono-nutrition', they found a link between obesity and having a calorie intake that starts low at breakfast and increases towards the end of the day [18].

Says Dr Gerda Pot, of King's College London: "There seems to

be some truth in the saying 'Eat breakfast like a king, lunch like a prince and dine like a pauper.'

**My View?** These studies are still in the exploratory stage, but what would our forager do?

As we have seen, forager food intake is IRREGULAR according to the fortunes of the day. Moreover, there would be the main cook-up at the end of day when the hunters returned.

So if there is any truth to these studies, then they are more a device to trick our biochemistry into keeping us slim than inspired by the forager template.

Foragers, after all, were never in a position of food abundance and, therefore, of having to control obesity or metabolic syndrome!

### Ancestral Health

#### Mouthpart Under-development in Westerners



*Receding face and weak chin*

In **Your Jaws are what you Chew**, [Aug 2011](#) [19], I introduced the exciting ideas of paleo-orthodontist Dr Kevin Boyd. His research shows that Western lifestyles have led to faces and jaws that are set back compared to historical and pre-historic humans, a condition called 'retrognathia'.

As a result, palates are too narrow for the tongue and teeth, and airways and sinuses are narrowed leading to mouth-breathing and sleep apnea.

These in turn can be factors in neurological and behavioral disorders like disturbed sleep, ADHD, diabetes and heart failure.

Recently Kevin gave a talk at the Ancestral Health Society's annual meeting in Boulder, Colorado. His talk explores the evidence that the

narrow palates and weak chins, are often detectable in very early childhood and even in the womb. Kevin argues that early correction of these malformations, where they lead to pathologies, is vital for childhood and adult health.

Video of talk: <http://bit.ly/2cHLvyY>

#### Our living Gut III

[Last month](#) [20] we looked at the major differences between forager gut bugs and westerner ones. Moreover, we are discovering a 'long tail' of previously unknown minor species which, nevertheless, exert significant roles.

But the challenge remains: just how do all these species interact in the battleground of the colon? The problem is complicated by the fact that viruses too play a role – especially the ones that infect the bacteria themselves – called 'bacteriophages'. And that is to say nothing of the other inhabitants of the colon: fungi and even worms.

So, even though our knowledge of the actual gut-fauna profile is incomplete, the gaps are being filled in fast. But that is far from being the whole story: the major problem is that the tens of thousands of components interact with each other in what amounts to a 'chaotic system' – that is, mathematically speaking, it operates to known laws yet outcomes are unpredictable. It is the so-called 'Butterfly Effect': the flap of a butterfly wing in Brazil might trigger a tornado in Oklahoma. See: **Chaos: The Butterfly Effect**, [March 2005](#) [21].

#### Dysbiosis

Nothing daunted, researchers are painstakingly identifying links between many pathologies and poor flora profile or 'dysbiosis'.

#### Inflammation and Auto-Immune Diseases

Dr Yasmine Belkaid at the National Institutes of Health (USA) finds that good bacteria talk to immune system T-cells called 'Tregs'. They educate the Tregs into only attacking bad bacteria [22]. In other words, without this education, the immune system would kill off its

good bacteria with friendly-fire. At the same time, the Tregs, very helpfully, tweak other T-cells into redoubling their killing power.

[Next Month](#): Continues with autoimmune disorders, plus other Dysbiosis- Disease links

### Letter

#### How to Meet Diabetes II & Win A Personal Story

From Steve Sellin, Palm Springs, CA.

"In the latter part of October 2011, aged 40, I became very ill and was not feeling well. There were many nights I was up most of the night because I was constantly urinating and had pains in my kidneys when I did. During this time, I began to feel weak and suddenly lost quite a bit of weight. My situation became even more severe, until I began drinking more water... I was scared. I was scared that something serious was happening to me that I may have allowed an illness to linger in my body for far too long...

[Steve's story runs to three pages and you can read the whole thing at this link: <http://bit.ly/2cM0Vmf> [23]

### Continued from Page 1

#### Defining Dietary Fiber

There is nothing like it in the western diet. It raises some interesting thoughts:

a) Maybe the absence of all that chewing is a factor in 'malocclusion' – defective growth of jaw-bone and muscle in modern societies, as paleo-orthodontists, Kevin Boyd & Mike Mew, surmise. [24]. See Boyd's contribution: **Mouthpart Under-development in Westerners**, this page.

b) A percentage of these fibers is probably swallowed. Medical researchers, Drs Truswell and Hansen, who investigated the San Bushmen in the 1960s, speculate that these fibers (plus those from other sources) explain the potbellies observed in the Kung San [25].

Frank Marlowe also observed potbellies in the Hadza but mainly among children [26].

[Next month](#): Forager vs Western fiber intake. What fiber & what it does.



**Continued from Page 1****More Big Sugar Skullduggery**

Another of their recommendations: cholesterol levels to be used as the SOLE risk indicator for CHD. This would show sugar consumption in a more favorable light than saturated fat. Sure enough, this ploy was successful and, from the 1970s, the American authorities – and the public – remain persuaded that this is true.

In 1978 Hegsted became head of Nutrition at the USDA and the Big Sugar revolution was complete. He led American dietary policy astray for several decades from which it is only now recovering.

We now know that cholesterol levels say little about CVD risk and than many other signs (such as high blood pressure, poor glycemic control, etc) are much more important.

We now know that CVD is much more a result of sugar (and starch) consumption than saturated fat. We know that polyunsaturated fats (notably omega-6) are equally bad. See: **Heart: Saturated Fat no worse than Omega-6, March 2014** [27].

**My View?** Only \$50,000 to subvert two generations of Americans! Stare & Hegsted gave up their scientific integrity cheaply. Now they are both dead, and it is possible for JAMA to expose them. It has to be said too, that science journals have got much more strict about financial interest disclosure.

Now remains the huge task of deprogramming the general population from Big Sugar's falsehoods.

Note This is only the tip of the iceberg

Big Sugar also fought bitterly against evidence that sugar has a role in diabetes, cancer, obesity,

high triglycerides, dental caries (cavities), Alzheimer's and many more. Indeed, the extent of Big Sugar's subversion of scientific studies, public opinion and Federal policy is on a par with that of Big Tobacco.

And that's just Big Sugar! What about the Dairy Industry, the Cattle Barons, the Soybean Lobby, BigPharma, and so many others?

**Moral?** Buyer Beware and listen to our humbug-busting insights!

**Meanwhile:** you can read the full JAMA article here: [#161](http://bit.ly/Bond-science)

**Spreading the Word****New Video Clip**

Done by Georgiades Productions  
New, re-mastered, mash-up of Geoff dealing with Paleo questions originally done for [Ugg Foods](http://UggFoods)  
<https://youtu.be/PdOQkrpv0Y8>



**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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- 1 Cell Metab. 2014 Nov 4; 20(5): 779–786. doi: 10.1016/j.cmet.2014.07.003 Starving our Microbial Self: The Deleterious Consequences of a Diet Deficient in Microbiota-Accessible Carbohydrates. Erica D. Sonnenburg et al.
- 2 Hipsley EH. Dietary "fibre" and pregnancy toxemia. BMJ. 1953;2:420–422.
- 3 Kashyap PC et al. Genetically dictated change in host mucus carbohydrate landscape exerts a diet-dependent effect on the gut microbiota. Proc. Natl. Acad. Sci. USA. 2013b;110:17059–17064.
- 4 Journal of Food Composition and Analysis; Volume 14, Issue 1, February 2001, Pages 15-25; Composition of Tubers Used by Hadza Foragers of Tanzania; Schoeninger M et al <http://bit.ly/1a15luC>
- 6 Sugar Industry and Coronary Heart Disease Research. Cristin E. Kearns et al, JAMA Intern Med. 2016 Sep 12. doi: 10.1001/jamainternmed.2016.539
- 7 N Engl J Med. 1967 Aug 3;277(5):245-7 concl. Dietary fats, carbohydrates and atherosclerotic vascular disease. McGandy RB, Hegsted DM, Stare FJ
- 8 Int J Epidemiol. 2016 Jun 28. pii: dyw115. Acetaminophen use in pregnancy and neurodevelopment: attention function and autism spectrum symptoms. Avella-Garcia CB et al
- 9 European Journal of Preventive Cardiology September 2016 vol. 23 no. 14 1557-1564, Low aerobic capacity in middle-aged men associated with increased mortality rates during 45 years of follow-up; Per Ladenvall et al, doi: 10.1177/2047487316655466
- 10 Wayne S. Cutfield et al. Oxidised fish oil in rat pregnancy causes high newborn mortality and increases maternal insulin resistance. Am J Phys - Regulatory, Integrative and Comparative Physiology, 2016; ajpregu.00005.2016 DOI: 10.1152/ajpregu.00005.2016
- 11 <http://bit.ly/U25Zs>
- 12 <http://bit.ly/2ckzbpq>
- 13 Can J Microbiol. 2015 Jan;61(1): 32-7. doi: 10.1139/cjm-2014-0472. Decrease in lactobacilli in the intestinal microbiota of celiac children with a gluten-free diet, and selection of potentially probiotic strains. Lorenzo Pisarello MJ et al
- 14 <http://bit.ly/1iDNleW>
- 15 <http://bit.ly/1o8fvSr>
- 16 1. Meredith E. David, Kelly L. Haws. Saying "No" to Cake or "Yes" to Kale: Approach and Avoidance Strategies in Pursuit of Health Goals. Psychology & Marketing, 2016; 33 (8): 588 DOI: 10.1002/mar.20901
- 17 Proc Nutr Soc. 2016 Jun 22:1-12. Meal irregularity and cardiometabolic consequences. Pot GK et al.
- 18 Proc Nutr Soc. 2016 Jun 22:1-14. Chrono-nutrition: a review ... on global trends in time-of-day of energy intake and its association with obesity. Almoosawi S, et al. DOI: 10.1017/S0029665116000306
- 19 <http://bit.ly/S9uaNs>
- 20 <http://bit.ly/2cLmYr6>
- 21 <http://bit.ly/1ZGXnkp>
- 22 Immunity. 2009 Nov 20;31(5):772-86. doi: 10.1016/j.immuni.2009.10.001. Epub 2009 Nov 5. Decrease of Foxp3+ Treg cell number and acquisition of effector cell phenotype during lethal infection. Belkaid Y et al
- 23 <http://bit.ly/2cM0Vmf>
- 24 Where is Darwin on dentistry? Caries & malocclusion from an evolutionary perspective. Boyd & Mew; Ancestral Health Symposium, UCLA Los Angeles, CA; Aug 5-6, 2011
- 25 Truswell AS, and Hansen JDL. 1976. Medical research among the !Kung. In: Lee RB, DeVore I, Kalahari Hunters and Gatherers. Cambridge.
- 26 The Hadza: Hunter-Gatherers of Tanzania, Marlowe, F. UC Press; 2010; ISBN 978-052025342,
- 27 <http://bit.ly/1a15luC>