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The science & art of living the way nature intended

The Bond Briefing

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GEOFF BOND

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

Naturally-adapted Diets

Bananas bad for Monkeys

Sometimes I say that zookeepers put up signs "Don't Feed the Animals" because they know that each species should have the diet appropriate to that species. But they don't always know the detail!

In my 1999 book, *Natural Eating* (being reprinted) I criticised the gorilla diet at an American zoo. Amongst other things the zookeeper was feeding them raisins, corn (maize) and sweet potatoes. I opined:

"In the wild, the gorilla would not be eating raisins, sweet potatoes, or corn. The zoo-keeper clearly has not heard of the Natural Eating Pattern."

Now, in Paignton Zoo, UK, the zookeeper has banned bananas and most fruit from the diet of the zoo's monkeys. He says, quite rightly:

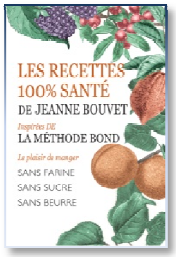
"Compared to the food they would eat in the wild, bananas are much more energy-dense - they have lots of calories - and contain much more sugar that's bad for their teeth and can lead to diabetes and similar conditions. …It can also cause gastrointestinal problems as their stomachs are mostly adapted to eating fibrous foods with very low digestibility."

Does this sound familiar? They are exactly the same reasons why we should not be eating bananas either – at least not the ripe ones. (See '*Resistant Starch*' page 2.)

Cont. p 4

Bond Precept Resources

Jeanne's French Cookbook



We are delighted to announce that Jeanne Bouvet, a '*Méthode Bond*' practitioner for many years, has produced her own book of recipes. They are all her own creations and are fully conforming to my precepts.

The book, *'Les Recettes 100% Santé'*, is in French and there is much more about it on my site: www.LaMethodeBond.com.

Or you can write (in English if you like) to Jeanne at: jeannebouvet@sfr.fr

Imminent Event

Details and updates:
http://bit.ly/bond-event.

Mirage Medical Group

LECTURE: (Open to the public)

Lifestyle Changes for Health & Longevity: Darwinian Insights.

Date: Weds, Feb 5th 2014

Time: 6:00pm

Place: Mirage Medical Group, 44650 Village Ct #100, Palm Desert, CA 92260

Location map:
http://goo.gl/maps/aSzAs

Res: +1-760-346-4003

Question of Month

Low Carb Mechanics

Q. *Phiney & Volek in their book,* 'The Art and Science of Low Carbohydrate Living' *differ from you in:*

1) They suggest higher salt intake because more water is excreted and the sodium [salt] goes away with it too.

2) They suggest high fat consumption, where the primary body fuel is saturated fats. As an athlete, the only way to get the calories I need is to increase fat consumption to 70-80% of total energy intake.

A. Our biochemistry is a chaotic system, imperfectly understood and, like the weather, unpredictable and impossible to micromanage.

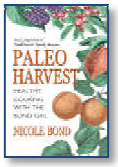
Phiney & Volek are attempting to second-guess our biochemistry by imagining what OUGHT to happen. They think of it like a machine where you pull various levers and obtain predictable, and consistent results.

But our body is not a machine; it is a living throbbing organism. It was never designed by anyone or built in a factory. There are no designer's plans or operating manuals.

In contrast, my starting point is to emulate the lifestyle to which our evolutionary past adapted us. When that is done, our bodies recognize what to do and sort out the biochemical workings just fine. **Cont**: p 4

Published by Natural Eating, 111 Leoforos. Chlorakas, Unit 9, PMB 73, 8220 Cyprus.

Recipes



NEW Paleo Harvest

No recipe this month but next month we will publish Nicole's Paleo Harvest recipe for PIZZA CRUST*.*

In the meantime, check out Paleo Harvest on our website: www.healthy-harvest.com

Questions

Resistant Starch

Q. *What is your take on resistant starch? I'm considering supplementing with some potato starch to improve satiety. Would our Paleolithic ancestors have gotten more resistant starch in their diet?*

A. I first wrote about resistant starch in April 2003, page 3. Paraphrasing:

> "Resistant starch is non-digestible and is found, for example, in bananas that are still green at the tips… It is also found in 'new' (baby) potatoes that have been boiled and then allowed to go cold. As a result they move from 'harmful' glycemic to 'borderline' glycemic but they still contain those potato poisons – the glycoalkaloids. As a result we still cannot recommend them."

Bananas contain a type of resistant starch code-named 'RS2'. Be on your guard for ripeness: strictly avoid regular yellow ripe ones; OK if they are unripe, slightly bitter, and green tipped (see '*Cooked Green Bananas*', Aug 2013).

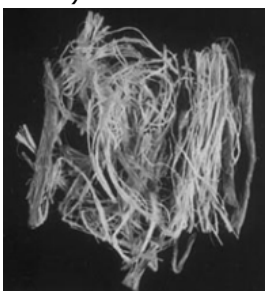
Cold baby potatoes belong to another category 'RS3' – resistant starch brought about by treatment such as cooking then cooling. But be warned: Nicole was tempted to eat them one day. She was rewarded by skin rash resembling elephant skin that took 3 weeks to wear off.

OK, she is unusually sensitive – my canary in the coalmine – but her experience shows that the glycoalkaloids are still there!

Finally there is another resistant starch (code-named 'RS1') that I wrote about in Aug 2011 '*Indigestible Fiber Intake*'. It was by far the greatest component of the forager diet.

Roughage

This is indigestible fiber (image) – what our grandparents used to call 'Roughage'. Foragers had a prodigious intake and left the traces in fossilized stools ('coprolites').



Indigestible Forager Tuber Fiber

Our digestive systems expect this to be coming through, but it doesn't happen! Indeed it is hard to think of any commonly consumed vegetable which has anything like this characteristic. Perhaps the only ones are celery, rhubarb and old, raw carrots. Plus, for example, the skins of tomatoes, apples and cucumber.

My View? Resistant starch is only one class of fiber. Apart from green bananas, in today's world we have to think of other types of fiber: gums like agar-agar, guar, chia, and xanthan (which we use routinely in our NEW Paleo Harvest recipes); plus the intake of volumes of plant food generally.

With regard to **satiety**, the gums are particularly effective.

Seeds: Sunflower, Pumpkin,

Q. *What is your take on these seeds? Are they better sprouted?*

A. I answered most of this question in '*Sunflower, Pumpkin, Seed*', June 2012; '*Sunflower Seed*', Sept 2010, and '*Pumpkin Seed*', July 2004.

Think of them like tree nuts, full of good phytonutrients but loaded with pesky omega-6 oil.

In addition, they do contain antinutrients (plant poisons) notably phytic acid, verbascose, tannic acid, trypsin inhibitor and flatulence factors [1]

Sprouting

Sprouting significantly reduced these antinutrients [2] – so this is well worth doing.

My View: Seeds of this nature were rarely a part of the Pleistocene diet and it shows: we do not handle the plant poisons well.

However, how much of them are you going to eat? With care it is probably no more than the body can safely handle.

Sesame Seed & Tahini

Sesame seed has similar characteristics to nuts. It is rich in soluble fibre. Its oil is omega-6 but, by a quirk of chemistry, it doesn't have the harmful effects of such oils. See August 2005. It does have some antinutrients but they are largely neutralized in the roasting [3]. Whilst we would rather not roast, this is the lesser of two evils here.

Tahini

Tahini is a dip or sauce made from ground, roasted sesame seed (sesame butter) plus lemon juice and garlic. The latter are innocent ingredients, so we are cool about tahini.

My View? Ditto my remarks for '*Sunflower, Pumpkin'* (previous question).

Wild Boar vs. Free Range Pork

Q. *I know wild boar is conforming but how does my local farmer's free range pork compare?*

A. To answer this question precisely, we need an analysis of the free range pork fat.

However, we can make some general observations:

Wild boar lead quite different lives to domesticated pigs (free range or not). They are energetic creatures, running around in woodland, digging furiously for worms or truffles and snuffling up acorns. They have a very low body fat of around 3%. This is so low that it hardly matters what the individual fatty acids are.

Domesticated pigs, even free-range ones, do not lead lives like wild boar. They are so fat and ill-exercised that they are pre-diabetic. Pig meat, (depending on the cut) is some 10 times fattier, at 30% fat.

Secondly, they do not EAT like wild boar. What does your farmer feed his pigs with? It can make a big difference to the fatty acid profile. See '*Food Type Impacts Body Fats*' next article.

Finally, there is no legal definition of 'free-range pork'. Ideally it would mean that pigs have permanent access to pasture, are born outside (without stalls or crates) and then reared outside throughout their lives.

If this is how your farmer raises his pigs then, in the absence of fatty acid details, this humane husbandry is perhaps the best thing about his free-range pork. Let us know!

Unintended Consequences

High-protein Diet: Kidney failure

Njisane Phillip

In Feb 2013 I wrote about '*Bodybuilding and High Protein Drinks*'. I said a high protein intake is unhealthy and probably counter-productive. Now comes a cautionary tale to reinforce the point:

The champion cyclist Njisane Phillip was admitted to a Los Angeles hospital recently with kidney failure. Tests found that Phillip had too much protein in his system and that his kidneys were overloaded.

The doctors say that this problem is common with athletes and body builders. They force-feed themselves on high-protein foods and high protein supplements and so drive themselves into kidney failure.

See: my 3-min video clip: "*Do protein drinks help build up muscles? - and is a high protein diet a good thing*?" http://youtu.be/OJFzBbrzXrA

Briefing

Food Type Impacts Body-fats

In a landmark 1968 study the English zoologist, Dr Michael Crawford found that savanna animals living in captivity had radically poorer fat profiles to those living in their natural habitat [4].

The effect was especially marked with buffalo which, in a state of nature, live in woodland. So called 'bush buffalo' had a much better fatty acid profile than those living on grassland (park buffalo) which in turn was better than those kept in a zoo (and fed on hay).

Amongst other things it pointed up the difference with domestic cattle. Bush buffalo meat was only 3% fat of which 22% was omega-3 oils; domestic beef was 25% fat of which only 2% was omega-3 oils.

Says Crawford: "These differences may arise partly because oil-rich vegetation which is available to free-living animals has been eliminated from the diet of animals raised on grassland."

In a remarkably farsighted commentary, Crawford pointed out that man evolved in an environment similar to that of the woodland buffalo and his diet would have contained a high quantity and high diversity of polyunsaturated fats.

In contrast says Crawford: "The LOW proportions of poly-unsaturated fatty acids in meat, milk and butter from domestic grassland bovids [cattle] has [regrettably] been accepted as normal for some time".

In passing Crawford notes that diet even makes a difference in the milk of nursing mothers. American moms' milk has only 8-11% polyunsaturated fat whereas Japanese women's has 20-25%.

Finally Crawford has a sideswipe at the hydrogenation of fats as producing 'unnatural' fats.

Crawford concludes laconically that all "These differences may be related to arterial disease."

My View? That was almost 50 years ago. And even after all this time, with so many studies confirming the basic premise, intensive farming has resolutely moved in the opposite direction.

It is with pride that progressive ranchers boast of their grass-fed beef. (See, '*Grass-fed vs. Corn-fed Beef*', March 2010). But that just brings us back to the state that Crawford lamented over in 1968!

It is also a terrible commentary on zoo-keeping practices of the time. Have they got any better? Only now has Paignton zoo woken up to the inappropriate diet they have been feeding their monkeys (see '*Bananas Bad for Monkeys*', p 1).

See also: '*How to make Good Body Fat*', March 2010

Siren Song

Xylitol Calumny II

Continued from last month: author Ravi Nagel uses disingenuous and manipulative arguments to cast doubt on the natural sugar substitute, xylitol.

…In an attempt to rubbish commercially extracted xylitol Nagel claims that it is not the same as the xylitol naturally occurring in fruits and vegetables – just as (so he claims) that 'synthetic vitamins' are not the same as the vitamins found in food.

This is rubbish. If you have scurvy then a vitamin C tablet cures it just as surely as drinking lemon juice. And xylitol is xylitol is xylitol.

Nagel talks of unnamed 'data sheets' which find NO EVIDENCE for xylitol's harmful effects in terms of Epidemiology (population studies), Teratogenicity (malformed fetus), Reproductive Effects, Mutagenicity (creating mutations) or Neurotoxicity (harm to nervous system).

Unbiased commentators would find this reassuring! But not

Nagel: "But I must ask this question, has xylitol been proven CONCLUSIVELY to be safe or effective?" [Notice the manipulation?]

In fact Nagel is asking the impossible (and he knows it): you cannot prove a negative. This conundrum was best formulated by the philosopher Bertrand Russell who wrote: "If I claim that a china teapot orbits the Sun somewhere in space between the Earth and Mars, it is nonsensical for me to expect others to believe me on the grounds that they cannot prove me wrong." (See Feb 2009).

Yes the whole article is very manipulative – it uses phrases like: '*It is obvious to me, as it might be to you, that xylitol, in addition to killing bacteria, will probably kill just about anything.*'

Err…. No. It is not at all obvious to me – this is pure sophistry.

In fact extensive long term studies find no evidence at all for any harmful effect whatsoever by ingesting xylitol [5].

And for what it is worth, both the USA and the UK food agencies declare, after intensive appraisal, that xylitol is safe for food use.

New Bond Videos

Ugg Foods Information Series

Q5. *Do protein drinks help build up muscles? - And is a high protein diet a good thing*?
http://youtu.be/OJFzBbrzXrA

Q6. *Is there a danger of mercury poisoning if I eat a lot of oily fish?*
http://youtu.be/eo688BUvnic

Continued from Page 1

Bananas Bad for Monkeys

… It is also why we recommend going easy on the high glycemic fruit like melons, pineapple, mango and so forth. It is safer to focus on berries, for example.
In *Deadly Harvest*, 'Fruits' p 126, Chapter 5, I say:

> "Modern fruits have, by and large, quite different characteristics to those of our African homeland.
>
> "Primatologist Dr. Katherine Milton finds that wild fruits as eaten by primates and our ancient ancestors do not have a Technicolor, super-sized, and plump appearance. They had a much higher seed-to-pulp ratio and are less sweet, they have a high roughage content composed of woody seeds and fibrous strands, and they have higher protein levels, micronutrient levels, and pectin (a soluble fiber) levels [6]."

As I say in my talks, in spite of knowing this the zookeeper thinks it perfectly normal to feed his kids on ANYTHING.

But we know better, don't we!

Continued from Page 1

Low Carb Mechanics

… With regard to your points:
1) The natural human diet is LOW sodium. The harms of excess sodium are well documented and I regard it as foolhardy to recommend otherwise.

2) The naturally adapted diet was moderate fat (about 20% calories), and it was mainly from monounsaturated and poly-unsaturated fats. Again I regard it as foolhardy to suggest much higher intakes of fat – and saturated fat to boot.

But there again it is important to specify which saturated fatty acids: the ones to fear are myristic acid and palmitic acid as found, notably, in beef, lamb and pork; stearic acid is tolerable as are most saturated fats of plant origin.

See 'Palm Oil: Friend or Foe, October 2011) in which I also highlight the importance of fatty acid position on the triglyceride molecule.

Calorie intake

With regard to getting in the calories, they are there too in the proteins and vegetation.
If nothing else, you need the high intake of plant food (rich in potassium) to balance up the sodium in the salt and the acidity of the protein.

Hunter-gatherers had no problem with their calorie intake, and every day they spent 50% more calories than the average office worker today.

Foragers even managed the occasional endurance run for hours on end – but this is not a thing for which the human organism is designed to do frequently. Even so, we have iron-man competitors who follow our protocols.

Current Events

CME LECTURE TOUR
January 20, 2014 – Feb 16
California, USA

1 Food Chemistry; Volume 74, Issue 1, July 2001, Pages 47–54; Characteristics and composition of different seed oils and flours; Tarek A El-Adawya et al.

2 Plant Foods for Human Nutrition June 2006, Volume 61, Issue 2, pp 70-77: A Review on Pharmacological Activities and Utilization Technologies of Pumpkin. Fu Caili et al.

3 Electronic Journal of Environmental, Agricultural and Food Chemistry 2011 Vol. 10 No. 1 pp. 1858-1864

4 Lancet. 1968 Jun 22;1(7556):1329-33. Fatty-acid ratios in free-living and domestic animals. Possible implications for atheroma. Crawford MA. **Full text:** http://bit.ly/Bond-science #124

5 Sugar alcohols as bulk sweeteners. Annu Rev Nutr. 1989;9:161-86. Dills WL Jr

6 Milton, K. "Nutritional Characteristics of Wild Primate Foods: Do the Diets of Our Closest Living Relatives Have Lessons for Us?" Nutrition 15:6 (1999): 488–498.