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

Buyer Beware: Study: Cocoa Flavonols lower blood pressure... **Star Letter:** Cholesterol & Genes. **Paleo Climate:** Alaska comes out of the Ice Age? **Recipe:** Caramelized Brussels Sprouts, Kale etc. **Q&A:** Hunger – Craving or Vague Urge? Health & Temperature Extremes. **News Flashes:** Cold Changes Gut Bacteria; Autism-Glycemia Link; Paleo Endurance Athletes Incredible Fat Burners. **Human Behavior:** Star-crossed Mars & Venus.

Buyer Beware

“Study - Cocoa flavanols lower blood pressure and increase blood vessel function in healthy people.” [1]

This is the headline from a press-release announcing the results of a scientific study.

It is a typical example: other press-releases and newspaper headlines talk of how cocoa flavanols help, for example, Alzheimer’s [2], reduce LDL oxidation [3] and reduce inflammation [4,5].

So the question is: if cocoa and chocolate are so wonderful, why don’t cocoa products carry health claims?



Where’s the health claim?

After all, the likes of Mars, Hershey, Nestlé and Lindt are not ones to pass up a hype opportunity!

Ha! That’s the little secret – THEIR PRODUCTS CONTAIN VERY LITTLE FLAVANOL! In fact cocoa flavanols are largely destroyed during the roasting, fermenting and processing of the cocoa beans [6].

Often the press releases do not mention chocolate at all. They don’t have to! Uncritical readers interpret the statements as evidence that chocolate is good for them, period.

What is going on? After all, I too, have written sympathetically about such claims: **Cont:** p.3

Star Letter

Cholesterol & Genes

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

Generally, I wholeheartedly agree with everything you say, because:

- it makes so much sense, and
- it is so well supported by data.

However, I take issue with your assertion that high cholesterol is due purely to poor diet and lifestyle. It is my understanding that cholesterol levels are genetically set. We can move them up or down only about 20% by good or bad habits.

In my case, baseline cholesterol was 325. With vigorous diet and exercise (in my 20s), I got it down to 240, but no lower.

I went on to only 10 mg of Lipitor, and it came down to 190. My LDL came down from 210 to 120.

I followed a broadly Mediterranean diet and in early 2014 (at age 66) I eliminated grains and dairy too. I lost 35 lb in a year. I stuff myself with fresh and dried fruits and raw nuts and vegetables. I also do aerobic and weight lifting exercise regularly.

With the dramatic weight loss, diet change, and exercise, my ‘good’ HDL went up from 75 to 90 in a year, an almost unheard-of improvement. Moreover, my total cholesterol, LDL, and triglycerides did not worsen.

Thank you for the gratifying changes you have engendered in my life as well as in the lives of my patients.

My response: page 4

Paleo Climate

Alaska comes out of the Ice Age?



Cabbage, Meyer’s Farm, Bethel, AK

Global temperatures have been trending higher ever since the height of the last Ice Age, 20,000 years ago. Superimposed on this trend are waves of warmer and colder climate.

In **Climate Warming Cycles**, [Nov 2007](#) [7], we see how temperatures in the Orkney Islands (north of Scotland), were 4°F warmer 5,000 YEARS AGO than they are today!

But then along comes a cold phase in the 15th century to wipe out the Greenland Vikings.

In **Climate Cycles: Winners & Losers**, [Sept 2009](#) [8], I opined that there would be winners, too, out of global warming:

“Just imagine: vast wheat-fields in the Yukon; orange groves in Anchorage; Siberia laid down to apple orchards; even vineyards in Greenland!”

It seems that that time is getting closer. Over the last few years, and for the first time in living memory, it has been possible to grow crops like cabbage, potato and kale right there in the defrosting Alaskan tundra.

Cont: p 4

Warm Salad Recipe

This recipe is contributed by long-time follower, Dana Melton of Yucca Valley, CA

Caramelized Brussels Sprouts and Kale with Crispy Capers

Yield: 8 servings



Enlarge: <http://bit.ly/1PloR87>

5 tablespoons olive oil
 ¼ cup drained capers, patted dry
 2 lbs Brussels sprouts, thinly sliced
 ½ red onion, thinly sliced
 salt and black pepper
 5 oz / 8 cups baby kale
 ¼ cup fresh lemon juice
 1 fresh long red pepper, thinly sliced.

Optional lapse: ½ cup freshly grated Parmesan.

HEAT 1 tablespoon of the oil in a large skillet (wok). Add the capers and cook over moderate heat, stirring until golden and crisp. 1 or 2 minutes. Transfer the capers to a paper towel-lined plate.

ADD 2 tablespoons of the oil, half the Brussels sprouts and half the onion to the skillet. Season with ½ teaspoon salt and 1/8 teaspoon black pepper. Cook over moderate heat, stirring until crisp-tender, about 5 minutes. Transfer to a large plate. Repeat with the remaining 2 tablespoons of oil, Brussels sprouts, and onion.

RETURN all the Brussels sprouts to the skillet and stir in the kale, lemon juice and red pepper and Parmesan. Season with ½ teaspoon salt and stir to combine. Transfer to a serving platter and garnish with the capers and more Parmesan.

SERVE warm or at room temperature.

Questions

Hunger: Craving or Vague Urge?

Q. You say that feeling hungry from time to time is a feature of Paleo lifestyle and that it is important for good health. However, I rarely feel truly hungry even when I have not eaten for several hours. Do I still get the benefits?

A. Almost certainly. ACUTE feelings of hunger – CRAVINGS – are a sign of crazed hunger signaling, commonly felt by the overweight and obese (see 'Dealing with the Stigma of Obesity', [Nov 2015](#) [9]).

Those with normalized hormone signaling often feel only a vague urge to eat when hungry. This means that they have, amongst other things, blood sugar levels under control and are not suffering sugar withdrawal pangs.

It means that other appetite hormones, of which there are many, are operating in a dynamic equilibrium.

In [Chaos: The Butterfly Effect March 2005](#) [10] I show a diagram of just a few of the signals reverberating between the digestive system, liver and brain. When all works well, they cause us to eat or not eat according to the needs of the body; also see [Hunger Hormones and Lifestyle, March 2005](#) [11] where we look at what happens when the signaling goes wrong.

Health & Temperature Extremes

Q. A health professional told my husband to start 20 minute sauna sessions, for deep sweating as part of his detox. Any Paleo comment?

A. Foragers are subject to considerably greater extremes of heat and cold than is customary (or bearable!) today. It is almost certain that this, too, has physiological significance.

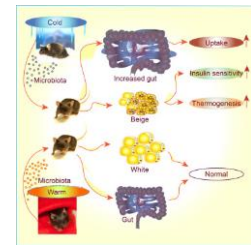
A recent study even found that gut bacteria change radically when the body transitions from one temperature extreme to

another – see [Cold Changes Gut Bacteria](#), next article.

All this is very new and it is not certain how to interpret what is going on – or whether we should be trying to manipulate our environmental temperature. Cold was very significant for foragers. Not wearing clothes, their body temperature dropped dramatically as they slept around the embers of a fire in sometimes freezing temperatures. When it got too bad, they woke up, see: [Sleep in a State of Nature, October 2015](#).

News Flashes

Cold Changes Gut Bacteria



Microbial metabolic pathways
 Enlarge: <http://bit.ly/1mE8KvJ>

Exposure to cold temperatures is known to have similar effects to exercise, reducing obesity risk and raising metabolic health. These, we now find, are due in part to gut microbes [12].

Cold exposure (6°C, 43° F for 10 days) dramatically alters the composition of intestinal bacteria in mice and that this microbial shift is sufficient to burn fat, improve glucose metabolism, and reduce body weight.

Adult humans have fat stores known as beige fat, similar to the famous 'good' brown fat in babies which burns itself to generate heat in cold weather. Cold exposure promotes the formation of 'good' beige fat.

Cold exposure also caused the intestine to grow in size and increased the area of nutrient-absorbing intestinal cells.

My View? See: [Health & Temperature Extremes](#), this page.

Autism-Glycemia Link

In mice, at any rate, researchers found that a high glycemic diet produced all the signs of autism

[13]. Their social interactions were impaired, they repeated actions that served no apparent purpose, and they groomed extensively. The brains of the high GI mice developed fewer new neurons, greater activation of microglia (brain immune cells), and greater expression of genes promoting inflammation.

This study also found that the high GI diet dramatically changed gut bacteria which in turn were pumping out molecules suspected to increase brain inflammation.

My View? Autism is long thought to be the result of a constellation of lifestyle errors. One such error, a high GI diet, seems to be one more brick in the wall.

Paleo Endurance Athletes are Incredible Fat Burners

I have several readers who are marathoners, triathletes and so forth. Although following my precepts, they often worry that they should be consuming 'carbs'. (By 'carbs' they mean starchy carbohydrates like cereals, bread and pasta.)

I advise that they should continue to eat Bond-Paleo but boost intake of 'safe' fats as in oily fish, olive oil and canola (rapeseed) oil.

Now a study confirms not only that this works, it is far more effective than a high 'carb' diet [14].

Paleo endurance athletes burned more than twice as much fat as high-carb athletes during maximum and prolonged exertion – the highest fat-burning rates ever seen by researchers.

In effect the athletes were living constantly in a state of KETOSIS, where starving the body of starches and sugars, forces the body to burn fats instead. See: **The Ketogenic Diet**, [April 2010](#) [15].

"We have far underestimated how much fat humans can burn. There is a large reserve capacity that can only be tapped if carbs are restricted."

Another key finding: These fat-burning athletes had normal muscle glycogen levels (the storage form of carbohydrates).

They also used the same level of glycogen as the high-carb runners and synthesized the same amount

of glycogen in their muscles during recovery as the high-carb athletes. Said the researchers: "The blueprint for becoming 'keto-adapted' is hard wired into our genetic code. However, orthodox 'healthy' diets with starches as the dominant nutrient prevent this alternative metabolic system from ever booting up."

My View? I often opine that hunter-gatherers regularly go into, and out of, a state of ketosis – that is the logic of the Paleo eating pattern.

The brain seems to expect this and without it things can go wrong. For example depression, epilepsy, ADHD, Parkinson's, schizophrenia, autism, dementia and mental sharpness all can improve with BOUTS of ketosis. See: **Brain Health, Deadly Harvest**, [Ch 9](#), p. 251 [16]. However, in my view, being in ketosis the WHOLE TIME is neither Paleo-normal nor healthy. The ketogenic diet is deficient in micro-nutrients since, for example, it eliminates fruits (because of their sugar content).

Human Behavior

Star-crossed Mars & Venus

When a marriage has troubles, women worry; they become sad; they get frustrated. For men, it's sheer frustration and not much more [17].

The husbands – all over 60 – felt frustrated giving support as well as receiving support... "they would rather be focusing their energies on another activity."

Opined the sociology researchers, Deborah Carr, Jennifer Cornman, and Vicki Freedman of Rutgers University, NJ, USA: "Men of this generation may feel less competent if they need too much support from their wives".

My view? The researchers, all women, give the game away in that last sentence with the word 'need'.

They could not imagine that men are programmed differently to women and simply don't feel 'need' in these circumstances – they simply feel irritated by having to give such priority to them. Moreover, contrary to the good ladies' speculation, it is NOT a

'generational' thing. As I reported in: **Males: Problem-discussing 'Weird'**, [Aug 2012](#) [18], even small boys had the same reaction:

"...talking about problems would make them feel "weird" and like they were "wasting time".

Ethnologist, Marjorie Shostak lived amongst the San Bushmen in the 1980s. In the evening, the women would sit around one campfire and gossip; the men would sit around another campfire and relate their exploits of the day.

Shostak asked Nisa the bush-woman why the men and women separated out like this [19]. Nisa answered: "The men have their talk and we women have our talk." Just so!

Events: Advance Notice

For details and updates:

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

KEYNOTES: (Open to the public)

March 5, 2016, Thame, UK

For: The Paleo Society Conference.

Why the Paleo way of life is right for us humans and how to do it

LECTURE: (Open to the public)

March 16, 2016, Oxford, UK

For: The Speedwell Trust,

How to Grow Older Without Feeling Old.

Continued from Page 1

"Study - Cocoa flavanols lower blood pressure and increase blood vessel function in healthy people."



... See **Cocoa Powder Beats Inflammation**, [July 2013](#) [20] and **Cocoa for Low Blood Pressure**, [Aug 2005](#) [21].

I went back into the literature and re-read the small print. It turns out that the researchers have a couple of tricks. Either:

- They find a chocolate-maker who specializes in conserving the flavanols – such was the case with my [Aug 2005](#) report – they used a special chocolate supplied by 'Ritter-Sports' of Germany! Or:
- They don't bother with cocoa at all. They use flavonols CAREFULLY EXTRACTED from COCOA to FORTIFY the diet of their test subjects.

Such was the case with the study in the headline. And, moreover, the flavanols were supplied by, guess who? – Mars! And the study was financed by... Mars! And the lead researcher is an employee of ... Mars! And the press-release came from ... Mars!

So this was a shoo-in for Mars' marketing people – just let the magic phrase 'COCOA FLAVANOLS' do its work, most consumers fill in the blanks and jump to the conclusion that "A Mars-a-day" is heart healthy! See: *Cocoa – best not Dutched*, [Feb 2011](#) [22], and (aargh!) *Nestlé's Hot Cocoa Mix*, [Aug 2011](#) [23] and '*Galaxy Hot Chocolate Drink*, [June 2004](#) [24].

Continued from Page 1

Cholesterol & Genes

My Reply: In controversies like this, I like to go back to first principles.

Without exception, primal peoples have very low cholesterol levels: San Bushmen around 120 mg/dl, African Pygmies (110 mg/dl), Australian Aborigines (140 mg/dl), and Tanzanian Hadza (110 mg/dl). See: *Deadly Harvest*, [Chap 9](#), p. 239 [25].

We have to believe that this is how things are meant to be – that it is the

default position for the human species.

Secondly, there is no advantage, as far as we know, why nature would select, genetically for high cholesterol levels. Indeed the common wisdom is that they are unhealthy.

However, we do know that lifestyle mismatches DO artificially raise cholesterol levels. These include high glycemic diet, dairy proteins, homocysteine, certain saturated fats, omega-6 oils, stress; and deficiencies of: physical activity, sunlight, and soluble fiber – amongst many! [26]

There are surely factors we do not yet know much about. For example, do youngsters' lifestyles program their biochemistry for cholesterol dysfunction which is then impossible to shake off as an adult?

Do epigenetic effects – or even transgenerational epigenetic effects – program the genetic determinism you speak of? [See: *Ancestors' Lapses Visited on us*, [Dec 2010](#)]

Cholesterol Red Herring

But with those provisos, there is still a get-out-of-jail card. High cholesterol levels by themselves are a sideshow.

The real villain is INFLAMMATION. It is inflamed arteries that attract the cholesterol to stick to the artery wall and cause the mischief. And chronic low-grade inflammation, we DO know, is a product of modern lifestyles.

See: *Statins: two faced Harlot*, [March 2015](#) [27].

Continued from Page 1

Alaska comes out of the Ice Age?

Farmer Meyer says: "Working the tundra – ploughing swampy bogs full of silty soil is tough – but years ago, it was a hard freeze and below zero up to the third week of May – we haven't had any of that this winter."

In fact Alaska had the warmest year on record in 2014 – averaging 35°F (+1.5 °C) instead of 29°F (-1.5°C). That's the difference between frozen and unfrozen ground.

My View? Is this just a freak spell of warming, lulling the Alaskans into a false sense of security (as with the Greenland Vikings)? Or is it the foretoken of an era of bountiful vegetation?

I have a sneaking wish for climate change to blow warm on the farmers of Alaska!



Deadly Harvest: Geoff's latest work encapsulates current thinking on lifestyle anthropology. www.deadlyharvest.com



Paleo Harvest Cookbook: Over 170 delicious, Bond Precept conforming recipes www.paleo-harvest.com

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