



The science & art of living the way nature intended

The Bond Briefing

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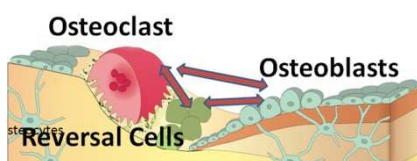


RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

Bone Health: 'Reversal: The Third Bone Cell. **Q of Month:** Flaxseed Safety. **Book Review:** The world Until Yesterday (part VII). **Recipe:** Rocky Road Chocolate Cake/Bar. **Q&A:** Eat Collagen to Make Collagen? Chlorine & Drinking Water; Protein Breakfast for Testosterone? Acceptable Non-savanna foods. Rapeseed (Canola) Oil Calumny; Fish still OK. **Briefing:** Thrifty Genotype; Cocoa Powder Beats Inflammation. **Viewpoint:** Motes & Beams: Prioritizing Right.

Bone Health

"Reversal": The Third Bone Cell



The body maintains healthy bone by constantly refurbishing it. Special cells called 'osteoclasts' rip out old, decayed bone while cells called 'osteoblasts' come along behind and build new bone.

We do know that, in healthy bone, the osteoblasts and osteoclasts work in tandem by signaling to each other with hormones in a process known as 'coupling'.

There is similar to-and-fro signaling with other organs of the body.

A failure in the delicate balance of signals leads to osteoporosis.

And that is what we do today, we UPSET THE BALANCE of these delicate signals. For a good run-down on how we do that, see [Chapter 9](#), 'Osteoporosis' page 266, [Deadly Harvest](#).

New research has uncovered yet another factor. Cells dubbed 'reversal cells' inhabit the cavity between the osteoclasts and the osteoblasts [1].

In a process that the researchers do not fully understand, the reversal cells prime the surface for the arrival of the osteoblasts.

Cont page 4.

Question of Month

Flaxseed Safety



Q. My health-food store will not stock flaxseed claiming that they cannot obtain organic supplies and that the regular product is toxic. Are they right?

A. No – and their excuses smell fishy to me! Organic flaxseed is readily available at most good stores and on the Internet.

As for toxicity, that sounds like the reaction of a health nut for whom anything grown non-organically is poisonous.

Flaxseed is remarkably safe but since it is a potent source of fibre and omega-3 oil, health professionals recommend introducing it slowly.

That's because it has strong effects on the bowels, and also on blood pressure, cholesterol levels and all the other factors that omega-3 improves.

A classic study by the GI inventors Jenkins & Wolever, found that traditional flaxseed improves bowel movements, reduces LDL cholesterol, raises omega-3 in blood and fat cells, and increases 'lignans' (anti-cancer compounds) [2].

There were no harmful changes in glucose tolerance, free-radical fat oxidation, antioxidant status or on vitamin status. So there!

Book Review VII

The World until Yesterday

Jared Diamond
New Guinea forager lessons for us today. Cont. from [last month](#).

Feeding Patterns

Over his 50 years of contact with New Guinea tribesmen Diamond has seen a remarkable change.

In the early years they were 'lean, muscular, physically active, all of them resembling slim Western body-builders'.

The degenerative diseases that kill westerners today (e.g. cancers and CVD) were absent even in old people.

Fast-forward 50 years and today one sees obesity, diabetes, and heart disease. What has changed? The westernization of their diet of course.

Diamond fingers salt, sugary drinks, simple ('sugar-yielding') carbohydrates, bad fats, processed food, butter, cream and red meat. He admits that this advice is 'banal' but pleads that if people heeded it, then that would still be beneficial.

You and I know that we can do much better than that. Diamond mentions a Paleolithic diet – but then passes on – New Guinea tribesmen are not true hunter-gatherers and don't fit into his paradigm. Today we have even better sources of persuasion, presumably unknown to Diamond, notably my own book [Deadly Harvest!](#)

[Next Month:](#) Conclusions

Food Ideas

This recipe is inspired by the [recipe](http://www.uggfoods.com) on www.uggfoods.com where they use one of their own ready-mixes.

Rocky Road Chocolate Cake/bar

Yield: about 8 servings



This makes a yummy, crunchy chocolate seed and nut bar or rock cake (photo).

3.5-ounce bar dark chocolate of minimum 75% cocoa solids

1 tablespoon agave syrup

3 tablespoons raisins

1 tablespoon dark rum

1/2 tablespoon vanilla extract

Handful (about 1 ounce) raw chopped cashew nuts

Handful (about 1 ounce) raw chopped walnuts

5-6 walnut crackers (see recipe [Jan 2012](#))

1. Break the chocolate into small pieces and put into a medium-size microwave-proof bowl, together with the agave syrup.

2. Melt the mixture at half power (about 300 watts) in a microwave oven for about 2 minutes. Check and stir twice. The chocolate should be melted, but avoid overheating.

3. Meanwhile take a small bowl and soak the raisins in hot water for about 10 minutes.

Drain the raisins, add the rum and mix well. Set aside.

4. Mix the vanilla extract and the nuts into the melted chocolate.

5. Using your hands, crumble the crackers into small flakes. Stir into the chocolate, so that the flakes are well coated.

6. Mix in the raisins with the rum.

7. Divide the mixture into 2 small special bar-shaped silicone molds

(about 4 x 2.5 inches). Press into the molds to a depth of about $\frac{3}{4}$ -inch. When finished the product should look like a thick, chunky chocolate bar.

Alternatively use muffin molds (as in the photo).

Questions

Eat Collagen to Make Collagen?

Q. *Who eats pigs trotters these days, not to mention animal skin or intestines (like foragers do)? I see reports of a lack of collagen in our bodies and the need to increase our intake of gelatin. I now make a fruit jelly with gelatin and glycine (an amino acid).*

A. Actually, anyone who eats hamburgers and hot dogs (or any sausage or salami) is eating animal skin, intestines and offal of all kinds.

But you don't need to eat these things to make collagen. It is a complicated protein made up of many amino acids and the body builds it just fine from the proteins you eat in the normal way. In particular you don't need to eat glycine: it is an 'inessential' amino acid and the body can make it whenever it needs.

Collagen's Enemies

You need to look at the other side of the see-saw – why the collagen we already have is DECAYING.

One big reason is 'glycation': that is when high blood sugar levels destroy collagen (see 'Sugar Hardens Elastic Tissue', [May 2013](#)).

A second big reason is inflammation. Most westerners suffer from chronic low grade inflammation from fat deposits, omega-6 intake, high insulin levels, stress, and much more. These are all preventable simply by a return to living the way nature intended.

Chlorine and Drinking Water

Q. *Drinking water is treated with chlorine to disinfect it. I hear*

that it will replace iodine in the body which is already at too low a level in the West.

A. Not so. The treatment process is known as 'breakpoint chlorination'. This means that just enough chlorine is added to the water so that it is entirely absorbed by reacting with pollutants – and no more.

There is no free chlorine in drinking water to get into the body to react with its iodine – which, anyway, would have to be done by some hitherto unknown process.

If, by any chance, there is some chlorine left over, it just reacts with the water to make very weak hydrochloric acid. And since STRONG hydrochloric acid is the main stomach juice, you can be sure that the body knows just how to handle it!

If you sense a chlorine-like smell, that comes from harmless 'trichloramine' – a compound of chlorine purification.

On the other hand, there is concern over other BY-PRODUCTS of disinfection, also known as DBPs [3].

Nevertheless, in my view, these are of minor importance compared to the big picture. (See 'Motes & Beams', page 4.)

However go for distilled water, purified water or even rainwater if you find it reassuring.

Iodine

As for iodine adequacy, if you are eating like we say, you will have PLENTY – particularly from the seafood intake.

Protein for Testosterone?

Q. *A doctor I know says he eats protein for breakfast (meat and eggs) because it increases testosterone levels. Is he right?*

A. Not as far as I know; I would be interested to know your doctor's sources. On the contrary, the literature indicates the opposite – that high protein intake DEPRESSES testosterone levels [4]. Indeed the research finds that the ratio of protein to plant food should not be too high.

As you know, the human adapted diet would have a ratio of about 25% to 75% (by weight) - which is just right for testosterone levels.

On the other hand the same research finds that HIGH FAT intakes depress testosterone.

For the full info on what increases testosterone, see 'Body-Building & High Protein Drinks', [Feb 2013](#).

See also: 'Male testosterone in old age', [July 2012](#) and, 'Obese Boys, Low Testosterone', [Nov 2012](#).

Acceptable Non-savanna Foods

Q. We live in New Mexico where there is a long tradition of growing corn (maize), bean and squash. However, in the savanna diet corn and beans are not acceptable. Yet you list many different vegetables and fruits that did not originate in Africa.

A. There is NOT A SINGLE PLANT in the industrialized world that our African forebears would recognize.

BUT IT DOESN'T MATTER.

It is sufficient to find plants in our food supply that EMULATE the same technical characteristics (glycemic index, fatty acid profile, compatible plant poisons, and so forth).

In this respect, and for the various reasons set out in [Deadly Harvest](#), corn and beans do not meet the specification.

Rapeseed (Canola) Oil Calumny

Q. Why do you recommend Canola oil instead of some other oils, after Canola got such a bad rap in the past few years?

A. Canola happens to fit the specification for a savanna model oil (see previous question).

It is rich in omega-3 and has a good omega-6 to omega-3 ratio. It is also rich in oleic acid (monounsaturated oil) - even more than olive oil itself.

As for the bad rap, that is another of those Urban Myths that has been doing the rounds. Years ago I posted an extensive

rebuttal on my website, under the title: [Canola Baloney](#).

The rumor-debunking website [www.Snopos.com](#) also found the Canola scare stories 'False'. Check it [here](#).

But anyone who is worried about GMO, or extraction with industrial solvents, should buy the organic, cold-pressed version, usually in a health-food store.

Fish still OK

Q. Why would fish be a good food considering the pollutants in most of our waters. And tuna?so high in mercury.

A. I have argued this on many occasions ['How much Fish for Infants?' [Oct 2010](#); 'Mercury in Fish', [August 2009](#)].

Even the USDA's latest Dietary Guidelines make the point that the benefits of eating fish outweigh the drawbacks.

According to one world authority, (The National Healthy Mothers, Healthy Babies Coalition), the alleged risks from mercury don't even exist [5]. After all, the body is quite good at getting rid of the mercury it doesn't want.

Fish are rich in selenium which is an antidote to mercury. Furthermore, healthy gut flora plays a pivotal role in showing mercury the back door [6]. So eat the way we say and grow 'good' gut bacteria!

Even pregnant women are all right. See: [Pregnant Women Should Eat Fish After All - October 2007](#).

See 'Motes & Beams', page 4.

Briefing

Thrifty Genotype

Foragers lived most of their lives feeling hungry but occasionally there would be an abundance of food. At such times, foragers would gorge on prodigious quantities - unthinkable amounts even to westerners.

One school of thought suggests that at such times their bodies, designed for the purpose (called

the 'thrifty genotype') would stash this abundance of calories with alacrity into fat deposits against the day when times are hard. It was a good idea then!

Now diabetes and obesity are rocketing in the third world - MUCH MORE than for those of European extraction in the industrialized countries.

Jared Diamond (Book Review, p.1) speculates that Europeans have survived many generations without famine so that their bodies have lost the thrifty genes and are more resistant to the abundant food intake. (Even so this resistance is only relative!)

My View? The latest thinking says the answer is more complicated. Foragers rarely had famines - much less than in European history - and they were, nevertheless, slim...

Whatever the reason, Diamond concludes:

"The leading 20th century killers kill us only with our own permission".

Cocoa Powder Beats inflammation



Pure cocoa powder brings remarkable improvements in vital signs.

On a high fat diet, the equivalent of just two mugs of cocoa a week reduced liver triglycerides by 32% and insulin levels by 27% [7]. These are both indicative of reduced inflammation.

Researcher Joshua Lambert of Penn State University, USA, said: "I was surprised at the dramatic reduction of inflammation and fatty liver disease." He suggests that cocoa helps avoid 'leaky gut' caused by excess fat in the diet. That would stop bad bacteria and the toxins they make from getting into the bloodstream and triggering inflammation.

Lambert remarks: "Unlike chocolate, cocoa, has low-calorie

content, low-fat content and high-fiber content.”

“We looked at cocoa because it contains a lot of polyphenolic compounds [micronutrients]”

My View? Make sure you use pure cocoa powder see: ‘Cocoa – best not Dutched’, [Feb 2011](#), NOT some ghastly ersatz product like ‘Nestlé’s Hot Cocoa Mix’, [Aug 2011](#) or ‘Galaxy Hot Chocolate Drink’, [June 2004](#).

Otherwise, intense dark chocolate with at least 85% cocoa solids also fits the bill.

Viewpoint

Gordes, Provence, France



Motes & Beams: Right Priorities

Every morning I leave the ancient stone farmhouse (where we are guests of benefactor Ingeborg Hoss) and have a good jog around the myriad goat trails that wind their way through the

thorny scrubland, locally known as ‘garrigues’. It is a landscape not unlike our ancestral homeland.

Today I came across wild blackberries growing in a hedgerow. Without thinking, I just started eating them straight off the bramble – delicious!

Yesterday I happened on a vineyard with grapes ready for harvesting. They had a dusty patina, but what the heck – I ate a couple straight off the vine.

The point I’m making is that the priority is to enjoy this bounty and not worry if it is organic or contaminated in some way. The body has age-old mechanisms for handling unwanted pollutants.

I often see people obsessing about some detail of little importance (the mote) to the detriment of matters of vital importance (the beam).

The questions on Chlorine (page 2) and Mercury (page 3) are cases in point where I try to steer the thinking into a focus on what really matters.

Continued from Page 1

‘Reversal’: The Third Bone Cell

In people with osteoporosis, the reversal cells don’t do their job. The osteoclast-osteoblast teamwork becomes ‘uncoupled’. This is not a good thing and the cavity between the two remains unfilled.

My View? This points up the amazing complexity of body biochemistry – and the impossibility of micromanaging it.

It also gives the lie to simplistic remedies for osteoporosis such as the guzzling of calcium pills.

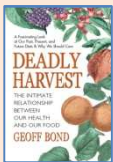
But we don’t need to worry – just live the way we say and your bones will be as solid as nature intended

Advance Notice

For details and updates:

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

LECTURE: (Open to the public) **October 9, 2013, Oxford, UK** Geoff gives his annual lecture at Green-Templeton College, Oxford University.



Deadly Harvest: Geoff’s latest work encapsulates current thinking on lifestyle anthropology. *Deadly Harvest* is an easy read yet is solidly referenced and is a work that doctors can trust.

www.deadlyharvest.com



Healthy Harvest Cookbook: Nicole has created and tested a comprehensive collection of over 90 delicious, fully tried and tested recipes all carefully conceived to conform to The Bond Effect precepts.

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