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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.

Buyer Beware: Fruitizz. **Event:** Scripps – 04 Feb 2013. **Evolutionary Environment:** Hospital Design for Humans. **Allergies:** Hygiene Good, 'Old Friends' Germs, Good. **Food Ideas:** Not-Nutella Chocolate Spread. **Q&A:** Coffee & Diabetes; Positive Sources of Omega-3. **Evolutionary Biology:** Teenage Heart Disease; 'Primitive Running' Beats Injury; Breast Feeding vs. Malocclusion; **Briefing:** Acid-Base Balance. **Sleep:** Long Term Sleep Loss – Bone Loss; Sleep Loss – Fat Cell Malfunction. **Odds & Ends:** Obese Boys, Low Testosterone. Soy in Girls, Adult Infertility. **Evolutionary Behavior:** Birds of a Feather – Cooperation. **Acknowledgements:** Graphic Designer; Club Trinidad.

Buyer Beware

Fruitizz: Wolf in Sheep's Clothing



McDonald's is bringing out a new fizzy drink, "Fruitizz", that they bill as 'healthy'. The drink is a mixture of fruit concentrate with fizzy water, natural flavourings and the preservative potassium sorbate. But a 12 oz serving still contains 9 teaspoons of sugar. That's fruit concentrate: a mainline SUGAR-RUSH.

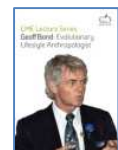
Unbelievably, McDonalds has persuaded the UK food authority to allow it to promote Fruitizz as one of the 'five-a-day' fruit & vegetable portions!

The British population is the guinea pig for this new product but it will soon be rolled out around the world.

Our View? It's scandalous that the worthy five-a-day message – originally designed to tackle cancer and heart disease – is being used to promote junk foods. AVOID

Advance Notice

LECTURE: Open to public



February 04, 2013
At: Scripps Center for Integrative Medicine, La Jolla, CA, USA.

Time: 07.30 a.m.

Topic: To be announced

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

Evolutionary Environment

Hospital Design for Humans

I have sour memories of when, as a youth, I visited relatives in grim London hospitals. Patients could only be seen at strictly controlled visiting hours and the staff treated us as unwelcome intruders.

A few years later, imagine my astonishment to discover the mission hospital in the savanna of upcountry Africa. It was single storey and built around a quadrangle. The spacious wards opened out onto a shady arcade.

It was airy: in that climate, windows were high and wide and kept wide open. People could wander in and out at will.

But the most surprising thing was that the patients' families would camp in the colonnade right outside the patient's room. They prepared food on little stoves and helped feed the patient. They kept him company, laughing and talking and generally involving him in their daily lives.

The nurses worked harmoniously with the family, involving them in simple nursing. They said that if a patient didn't have a family to come and live with him, then he would be depressed and took much longer to recover.

Fast forward 40 years. Now, forward-thinking hospital designers have come to the same conclusion [1]. They are providing "spaces on each nursing unit to accommodate families and enhance involvement in the healing process".

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Evolutionary Environment

Allergies: Hygiene Good, 'Old Friends' Germs, Good



It has been fashionable in the last few years to blame allergies on being too hygienic. That is

an oversimplification according to a new report [2].

They say that the problem is that we are no longer exposed to the SPECIES of germ that the human species evolved with. They are not too sure what they are, but they call them 'Old Friends'. Even so, we already have some idea. **Cont. Page 4.**

Breast Feeding vs. Malocclusion



My colleague, paleo-orthodontist Kevin Boyd has written an editorial for *Infant, Child and Adolescent Nutrition* [3].

He makes the point that "diseases are best understood when evaluated from the perspective of modern evolutionary theory."

In particular, breast feeding has an evolutionary role and when it doesn't happen properly then some things might not work out. For example, non-breast fed babies are at greater risk of malocclusion (poorly aligned jaws and crooked teeth).

Read the full text here:

<http://bit.ly/Bond-science> #78

See also: 'Your Jaws are What you Chew' [August 2011](#) .

Food Ideas

Not-Nutella Chocolate Spread



In [April 2012](#) we cited Nutella's prosecution for false advertising and explored its appalling nutritional profile.

But undeniably there is a market for a harmless chocolate spread. Here we offer our own recipe. The photo shows Not-Nutella spread on a slice of our toasted almond bread ([Sept 2011](#)).

$\frac{1}{4}$ of a 3.5-ounce bar chocolate of minimum 75% cocoa solids

$\frac{1}{4}$ cup almond or coconut milk

$\frac{1}{4}$ cup almond butter

1 tablespoon vanilla extract

3 tbs. unsweetened cocoa powder

2 tbs. xylitol, or to taste.

1. Break the chocolate into small pieces and put into a medium-size microwave-proof bowl. Add the almond milk.
2. Melt the mixture at half power (about 300 watts) in a microwave oven for approximately 40 seconds. Check and stir. The chocolate should be melted, but avoid overheating.
3. Add the almond butter and blend to obtain a smooth paste with an electric hand mixer.
4. Blend in the vanilla extract, cocoa powder and sweeten with Xylitol to taste.
5. Place the Nutella mixture in a glass jar with a lid and store in the fridge.

Sweetness: True Nutella is, in our view, unpleasantly sweet. It is also not good to habituate the taste buds to excessive sweetness.

Quite deliberately this recipe is not so sweet.

Consistency: Adjust the quantities of liquid according to the nut butter consistency, so as to obtain a final product which is stiff, yet readily spreadable.

Questions

Coffee & Diabetes

Q. I read that people who drink at least six 8oz. cups of coffee per day can dramatically reduce their risks from diabetes. The coffee should be drunk straight without milk or cream. I have Type 2 diabetes, would coffee still be OK to drink?

A. A great many studies have been carried out to examine the connection between coffee consumption and glucose control [4]. The results vary from not much improvement [5] to quite significant. However, milk and cream depress the benefit. Caffeine on its own makes insulin sensitivity worse, so it must be something else in coffee that gives the improvement. In confirmation, decaffeinated coffee produces similar benefits to regular coffee.

Coffee contains hundreds of substances of which 'chlorogenic acid', 'quinides', 'lignans', and 'trigonelline' have been shown to improve glucose metabolism [6]. But, we don't know precisely what is going on, so we cannot with certainty make a prescription for its consumption.

My view: if you like coffee then you can safely, and beneficially, continue to drink it (black) in moderate quantities (up to, say, five or six cups of Americano per day.)

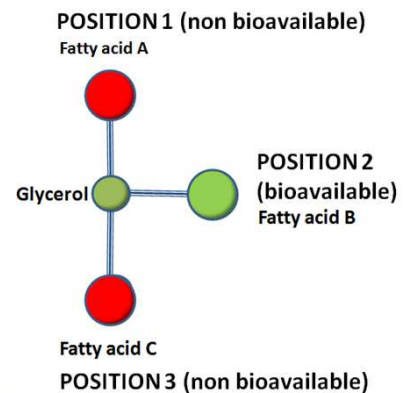
At higher levels of coffee consumption the data suggest that drawbacks begin to appear. The ratio of 'good' cholesterol (HDL) to 'bad' (LDL) tends to worsen and the risks rise a little for blood pressure and cardiovascular disease [7].

Positive Sources of Omega-3

Q. Dieticians say that foods like soybean oil are good sources of omega-3 oil yet you do not recommend them. Why?

A. There is a second factor to consider: the ratio of omega-3 to

omega-6. To have any benefit, the ratio has to be a minimum of 1 to 4. Soybean oil has a ratio of only 1 to 8 so we are going backwards when consuming it for its omega-3.



There is yet a third factor: the positions of the fatty acids on the triglyceride molecule. See '[Palm Oil: Friend or Foe?](#)', [Oct 2011](#). In this regard, soybean oil comes out even worse: the BIOAVAILABLE ratio moves to 1 to 11 [8].

In contrast, Canola (rapeseed) oil makes a POSITIVE contribution because its bioavailable ratio is, at 1 to 2, better than 1 to 4.

So when I am making recommendations about POSITIVE sources of omega-3, I take all these factors into consideration. See the 'Green-Green' category of Fats and Oils in the Shopping List. Download: <http://bit.ly/bond-foods>

Evolutionary Biology

Teenage Heart Disease

Way back in 1953, Major William Enos of the Armed Forces Institute of Pathology created a stir by finding that some 77% of young American soldiers (average age 22.5) killed in battle (Korean war) had "gross evidence of coronary arteriosclerosis" [9].

It hasn't got any better. Yet another study reveals a dismal picture of American teens who risk dying of heart disease younger than adults do today [10].

30% of boys and 40% of girls have high blood sugar levels; 35% of boys and girls are obese or overweight; 62% of girls and 48% of boys had insufficient physical activity; and 35% of girls

and 27% of boys had high cholesterol levels.

100% have terrible diets – high in sodium and sugar-sweetened beverages and not enough fruits, vegetables, fiber or lean protein. They eat too much pizza and not enough whole foods prepared inside the home.

Say the researchers: "The plaques that kill us in our 40s and 50s start to form in adolescence and young adulthood. What is most alarming is that NO adolescents meet the criteria for ideal cardiovascular health."

Does this sound familiar? I first wrote about this problem 13 years ago! See : '*US youth - geriatric arteries*', [March 1999](#)

'Primitive Running' Beats Injury



Our ancient ancestors ran barefoot for thousands of generations. Clearly this is the way nature designed for us, and if we wear shoes, things are likely to go wrong.

Now a sports researcher has studied several thousand runners who have taken to barefoot. An overwhelming percentage – 85.5% said they preferred this way and would not go back [11].

The reasons they gave were instructive – fewer injuries, in particular to the knee and hips. In other words, running shoes were more likely to give injury. That's because they encourage the runner to land on the heel instead of the ball of the foot – nature's shock-absorber.

See: '*Barefoot Running*', [Feb 2012](#) ; '*Running: Why the shoes? II*', [Feb 2010](#); '*Running: Why the special shoes?*' [Jan 2010](#).

Briefing

Acid-Base (Alkali) Balance

After one of my CME lectures, a doctor in the audience opined that concern about acid-base balance was misplaced. He argued that

acids in the stomach and then alkaline bicarbonates in the intestine quickly swamp any acid-base qualities of the food.

I was pleased to have this question since it displays a common misconception – and that doctors can be just as confused as the general public.

As described in *Deadly Harvest*, [Chapter 4](#), page 108, acid-base balance concerns what the food does AFTER digestion and AFTER it enters body fluids.

Anthony Sebastian and colleagues at University of California, San Francisco, wrote an interesting summary of this question and, crucially, ties it into what we know about our ancestral diet [12]. He concludes that we are genetically adapted to thrive on an ALKALIZING diet.

Sebastian goes on to point out that today's CHRONICALLY ACIDIFYING diet is a factor in a range of diseases – of which we have so far identified osteoporosis, age-related muscle wasting, calcium kidney stones, salt-induced high blood pressure, reduced exercise performance, infertility, and kidney malfunction.

Sebastian then looks at what needs to happen to the western diet to make it alkalizing. He says we need to replace cereal grains and 'Empty Calorie' foods (like fats, vegetable oils and sugar) with conforming (alkalizing) plant food.

Sounds familiar! You can read the complete article here: <http://bit.ly/Bond-science>, #61.

Sleep

Not long ago the idea prevailed that sleep is a waste of time and the less of it we do, the better. We now know that sleep starvation is a factor in many illnesses. See sleep in 'Living Arrangements', Deadly Harvest, [Chapter 8](#), p 194

Long Term Sleep Loss: Bone Loss

In tests on rats, after long term sleep deprivation, they had dramatic bone loss, greatly diminished marrow fat and an increase in 'megakaryocytes' (large red blood platelets) raising the risk of thrombosis [13].

Sleep Loss: Fat Cell Malfunction

After just four nights with 4,5 hours sleep per night, human subjects' fat cells lost 30% insulin sensitivity [14]. That is the difference between a healthy and a diabetic person.

In addition insulin response decreased 16%. Say the researchers: "Sleeping four to five hours a night on work days, is now a common behavior. We found that subjects are not tolerating the metabolic consequences."

Odds & Ends

Obese Boys, Low Testosterone

If you have difficulty persuading an obese son to adopt a healthy lifestyle, try telling him that his testosterone levels will be some 50% lower than normal [15].

Says researcher Paresh Dandona: "The implications of our findings are, frankly, horrendous because these boys are potentially impotent and infertile. The message is a grim one with massive epidemiological implications."

Soy in Youth - Adult Infertility

Beans, of which soy is now all pervasive, are not human food. They contain many harmful anti-nutrients. In mice, one these antinutrients, genistein, affects the oviduct [16].

The authors say that girls from birth to puberty should minimize soy (including formula). Just so!

Evolutionary Behavior

Birds of a Feather: Cooperation

[Last month](#) we looked at Max Krasnow's study of how 'individual cooperation', combined with the reflex to punish, is part of an 'efficient package' to maintain a healthy social dynamic in a forager band.

But modern populations are not closely-knit forager bands – they are huge agglomerations of strangers usually with no common sense of loyalty.

It had been thought that the glue that held them together is reciprocity. "I do this for you, and so you do this for me". However the theory breaks down in

practice because cheaters tend to take over.

A group of scientists has had a harder look at the question [17]. They find that reciprocity is important but so is another factor: 'assortment'. This is code for 'like people sticking with like' – or as Maggie Thatcher used to ask of her colleagues: "Are you one of us?"

So that's it then: to give the best chance for trust and cooperation, then stay with one's own kind. It's not surprising: this must be an instinct deeply programmed by eons of life in forager bands.

See 'Suckers, Cheats & Grudgers' Deadly Harvest, [Ch 8](#), Page 206.

Acknowledgements

Ours is a small, lean organization and we couldn't manage without people generously donating their facilities, time and expertise...

Graphic Designer

Many thanks to a graphic designer (who wishes to remain anonymous) for creating a new image for the Bond Effect cause.

The Bond Briefing banner, page 1, is an example. The CME prospectus is another. Download: <http://bit.ly/Bond-CME-2013>.

Club Trinidad, Palm Springs

We are deeply indebted to Art Brigman and Yona Aroesti of [Club Trinidad](#) [18] for hosting our stay in USA while I carry out my lecture tour for doctors.

This is vital work which brings our cutting edge knowledge right into the heart of medical practice.

Web News

Latest Video Clips Uploaded

Evolutionary Medical Anthropology:

9. Naturally Adapted Feeding Patterns (3) Fatty Acid Profile

<http://youtu.be/HIhH7QrEY0o>

Continued from Page 1

Hospital Design for Humans

Other human-friendly features are incorporated: windows are made larger and wards more spacious; 'healing art' and 'healing gardens' are provided.

Of course the bean-counters want to know if this is worth the money. Hearteningly, the figures show that it is.

There are corresponding savings on recovery rates, reduced hospital stay, improved staff morale, reduced staff turnover, fewer medical mistakes, fewer patient falls and much more.

There is a full summary here:

<http://bit.ly/Bond-science>, # 79

See also: 'Lightness of Being', [Jan 2006](#).

Continued from Page 1

Allergies: Hygiene Good, 'Old Friends' Germs, Good

I have written regularly about 'friendly' colon bacteria, and the fact that they help the immune system to mature properly.

We know that intestinal worms also help, see 'Worms are Good for You', [Nov 1999](#).

The report mentions *Helicobacter pylori* infection as helping the immune system – provided it is acquired early in life. Later in life, this bacterium is a cause of stomach ulcers.

On the other hand, we still need to be just as hygienic both personally and in our environment. Salmonella, E.coli and many other bugs like cholera, typhoid and so forth are definitely not 'Old Friends' and can make us very sick indeed.

Forthcoming Events

Bond CME Lecture Tour USA

Geoff will be lecturing in California **January 13 to February 9**.

Download the [prospectus](#).

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