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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

**Evolutionary Biology:** Recording #BondPaleo – IV. **Question:** Spermidine and Ageing. **News Short:** Cancer & Body-clock Disruption. **Q&A:** Fish-farmed Salmon; Offal for Paleo. **News Shorts:** Witchcraft beliefs are everywhere; Remove Phones, Sleep Better. Low-starch-sugar diet reduces epileptic seizures. **Viewpoint:** Organizing Society for an Industrialized World (V). **Letters:** Sally Unsworth. **Spreading the Word:** Private Lectures.

## Evolutionary Biology

### Recording #BondPaleo - IV



[Food Diary](#) [1] [Geoff](#) [2]

[Last month](#), I analyzed my sample food and lifestyle diary for **Fats & Oils; Omega-3; and Fatty Acid composition**. Now for **Drinks**:

On this day I drank tea, coffee, cocoa, and wine. Also, I probably swigged some water (unrecorded) while playing badminton.

Note that I “drink to my thirst” and don’t make a fetish of water drinking. See: **Official: Drink to your Thirst, July 2015** [3], “**Drink At Least 8 Glasses of Water a Day**” – Really? [Sept 2002](#) [4].

All told, including all the liquid in the fruit and vegetables, I am in good water balance.

**Tea:** is traditional black tea, sweetened (see [next month](#)), and with a splash of milk. The latter is an old British habit that I can’t shake off – but what the heck, it is only a small lapse, and it is not going to do any harm.

About half the tea I drink is decaffeinated. This is mainly to avoid caffeine crash after a couple of hours but also to limit any harms that an excess of caffeine might cause. See: **Caffeine Overdose, Deadly Harvest, Ch 3** [5], p 82.

I drink tea because I like it. >p3

## Question

### Spermidine and Ageing?

**Q.** Spermidine supplements are heavily promoted as an antidote to ageing. Thoughts?

**A.** Spermidine is a ‘polyamide’ compound present throughout living matter including ourselves. Our bodies even make it.

It has antioxidant properties and is even found to clean up waste in ageing cells [6]. Spermidine seems to lower the risk of all-cause death and keep cells rejuvenated – at least in mice and fruit flies.

It seems to work by lowering inflammation and so lowering the risk of heart disease and cancer. The anti-ageing effect seems to be due to spermidine’s ability to mimic the effect of a calorie restricted diet.

Clearly spermidine is a “good thing” – so should you supplement? Well, you know me: I would much rather you get the spermidine in your food rather than medicate yourself with it.



Oyster Mushrooms  
<http://bit.ly/3KcpsQc>

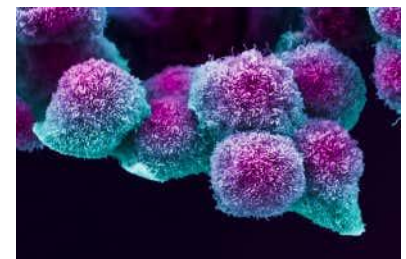
By far the richest source of spermidine is mushrooms – any variety will do but the best are oyster and shiitake [7]. Otherwise, most plant foods are good, including green asparagus, broccoli, cauliflower, radish, spinach, >p3

## News Short

### Cancer & Body-clock Disruption

This is the period for changing clocks around the world. Those who have been following me for a time will have heard me gripe about this practice. Most people find it disrupting – and it does have many harmful impacts on health.

Average sleep duration shrinks by 20 minutes during daylight saving transitions. Sleep deprivation increases heart rate, blood pressure and inflammation. Result? An increase in strokes, heart attacks, other ailments - and accidents. See: **Daylight Savings & Heart Attacks, Feb 2019** [8]. **Daylight Savings Stupefies Teens, Oct 2015** [9]; **Daylight Savings Paradox in Later School Start Times, May 2019** [10]; **Daylight Saving Time: Long-term Brain Damage, Dec 2019** [11].



Pancreatic Cancer Cells [12]

**Cancer:** Now one study has found another drawback of messing with the body-clock – an increased risk of **Pancreatic cancer** [13]. Whilst a second study finds an increased risk of **Lung Cancer** [14].

What is going on? The researchers explain that healthy cells have an internal body-clock which tightly >p3

## Questions

### Fish-farmed Salmon

**Q.** *I worry that fish-farmed salmon is unhygienic so avoid it. Is this reasonable?*



Salmon Fillet

<http://bit.ly/3z7OtFY>

**A.** Fish-farming practices have radically improved since we reported 20 years ago. Then we had #BondBriefing reader, Ironman and professional fisherman of wild salmon, **Patrick Garlepp** [15] rubbishing farmed salmon: **Wild Fish Savvy**, [May 2002](#) [16].

Today, fish farms around the world are much more regulated and have to adhere to norms of good practice.

Even so, like battery hens, non-organic salmon are still exposed to antibiotics and pesticides as they are growing. A 2015 study found that the level of contaminants were within EU limits and that up to 1.5kg of farmed salmon per week is a 'tolerable intake' [17].

If you can, get **ORGANIC** salmon of British or European origin ('organic' is not regulated in USA): salmon are not crowded; they are fed high quality fish meal; pesticides are strongly restricted; and artificial pink coloring is prohibited [18].

Of equal concern is the level of omega-3 fish oils in the flesh. In nature, salmon are carnivores, feeding on other fish. However, intensively farmed fish are fed increasingly on plant food like soybean and restaurant leftovers.

Nevertheless, good practice – and the market – require that farm-raised fish have similar omega-3 levels to the wild ones. Organic is often richer. See: **Salmon Species: Fish Oil Content**, [Sept 2018](#) [19].

**My View?** The highest priority is for us to have a good intake of omega-3 oils. So, in my view, the balance of advantage lies with getting them regularly from **ANY** source, including farmed salmon.

After that, choose wild or organic where you can and intensive farmed if you must. Or, indeed, switch to other fish-oil-rich wild sources like sardine, herring, mackerel and so forth.

### Offal for Paleo

**Q.** *What is your take on offal (variety meats)? I understand they are nutrient dense, especially liver.*

**A.** Our Paleolithic ancestors would eat just about every part of the animal, from the brains, heart, and liver to the guts and the trotters. Many of the internal organs have wildly varying nutrient composition, depending on what the animal ate recently, how it was raised, and even its state of health.

It is difficult, therefore, to generalize about variety meats. They are usually rich in micronutrients not found in such high concentrations in other sources. So they can be good to consume in modest amounts.

Kidney, tripe, and liver are low-fat meats, but liver, particularly, is heavily loaded with vitamin A and inflammatory arachidonic fatty acid, both of which are harmful in high doses. Tongue, heart, and brains are high in saturated fat.

Today people eat offal mainly in sausages, pâtés, hamburgers, luncheon meats, and meat pies. However, most of them are bulked up with unhealthy fat and non-meat "extenders" like gluten and cereal flour. They are often loaded with preservatives like salt and sulfites.

In no way can these products be compared favorably to the offal eaten by our ancient ancestors.

Personally, brought up as a vegetarian, my gorge rises at the thought of eating offal. But there is no escaping the fact that it **IS** Paleo so, if that is your fancy, by all means, consume it moderately. See:

**Variety Meats (Offal)**, [Deadly Harvest, Chapter 5](#) [20], p. 148

## News Shorts

### Witchcraft Beliefs are Everywhere

Numerous studies conducted around the world have documented people's beliefs in witchcraft -- the idea that certain individuals have supernatural abilities to inflict harm. Surprisingly, a recent study [21] finds that over 40% of participants said they believe that "certain people can cast curses or spells that cause bad things to happen to someone." Witchcraft beliefs vary between countries. For instance, 9% of Swedes are believers compared to 90% of Tunisians.

Witchcraft beliefs are linked to low levels of education, low economic security, weak institutions, low levels of social trust, low innovation, conformist culture, and a bias to favour one's in-group. See **In-group, Out-group**, [Deadly Harvest, Chapter 8](#) [22], p 197

Say the researchers: "An obvious danger is to simply disregard witchcraft beliefs as irrelevant. Policymakers may face implementation difficulties if a project requires mutual trust, cooperation and communal effort, the kind of social capital that is typically lacking in societies with widespread witchcraft beliefs."

**My View?** Foragers such as the San Bushman [23] and the Hadza [24] do not practice witchcraft.

However, to explain some misfortune, they do believe that their Bantu farmer neighbours have practiced witchcraft on them.

In my years of experience in Africa, witchcraft beliefs remained largely invisible until, that is, I hit some inexplicable resistance from my local co-workers. After careful questioning I would find that they were spooked by some witchcraft foretoken such as a dead bird nailed to a fencepost.

### Remove Phones, Sleep Better

Australian researchers studied the sleep patterns of 59 boarding students and 250 day students at a high school in Adelaide. The

students were 15 to 18 years old and a mix of boys and girls.

The boarders had to leave their phones in a kitchen area or on their desk before they went to bed and turn out their lights by a set time, Result: The boarders slept for 40 minutes longer per night than the day students, averaging 8 hours and 26 minutes, compared with 7 hours and 46 minutes [25]

**My View?** The need for, and type of, sleep is deeply programmed in human nature. This study reinforces the principle that, in order to sleep healthily, we should eliminate, as far as possible, all habits alienating us from the ecosystem that nature intended.

See also: **Bright Screens Blight Teen Sleep**, [Sept 2015](#) [26].

### **Low Starch/Sugar diet reduces epileptic seizures**

A trial of 160 people found that pairing standard epilepsy therapies with a low starch-&-sugar diet ("low carb" diet) reduced seizures by more than 50% in a quarter of participants [27].

The subjects followed a so-called Modified Atkins Diet which allowed only 20 grams of such carbohydrates per day.

Say the researchers: "Low-Carb diets reduce seizures by inducing ketosis. There are many potential mechanisms including changes in the gut microbiome, inflammation, and electrical signalling between neurons."

**My View?** We have known for a long time that inducing a state of ketosis can be helpful for brain health. See: **The Ketogenic Diet**, [April 2010](#) [28]. The Paleo feeding pattern which, by definition, shuns starches and sugars must induce a state of ketosis from time to time.

At any rate, several followers have written to say how eating the way we say has helped their epileptic episodes, e.g.: **Charles Smith**, [June 2001](#) [29].

Mind you a full-blooded ketogenic diet is risky see: **Ketogenic Diet Dangers**, [April 2012](#) [30].

**Continued from Page 1**

### **Recording #BondPaleo - IV**



[Food Diary](#) [31]



[Geoff](#) [32]

However there are benefits too. See: **Tea Improves Brain Health**, [Oct 2019](#) [33], **Parkinson's & Lifestyle**, [Jan 2013](#) [34]. **Tea Essence for the Heart**, [Feb 2003](#) [35]. **Tea Boosts Immune System**, [July 2003](#) [36]

**Coffee:** is drunk black and sweetened. It is prepared in a variety of ways: instant, French press, capsules, Turkish, and so forth. Again, as with tea, about half is decaffeinated.

**Cocoa:** is usually made by putting a well-heaped teaspoon of cocoa powder into a mug and then off-the-boil water poured on top. Sweetening is added.

I try to find cocoa powder that is not 'Dutched'. See: **Cocoa - best not Dutched**, [Feb 2011](#) [37]. In Dutching cocoa is treated with alkali to reduce its robust taste and to make it darker and richer looking. (Look for **PALE BROWN unDutched cocoa**).

However, Dutching severely reduces cocoa's content of valuable antioxidants and flavonoids. Since much of these precious micro-nutrients can be lost in the roasting of the bean, only specialist brands take care to conserve them – and advertise the fact on the packet.

So we take the view that we drink hot cocoa for the pleasure and, if it does some good at the same time, so much the better.

**Wine:** Most days this is red but can be white or bubbly. It was a very reasonable dose of just one glass of 175 ml (6 oz). Is it doing any good? There is some evidence that red wine contains some healthful substances like resveratrol: **Red Wine Fends off Prostate Cancer**, [Aug 2007](#) [38]. That's as may be – I drink it for the pleasure and if it does any good, that is a bonus.

**Next month:** Sweeteners and Fermentable Carbohydrates.

**Continued from Page 1**

### **Spermidine and Ageing?**



... leeks, pistachios, almonds, cashews, and most other nuts.

There is negligible spermidine in animal foods although, if you are tempted into a little lapse, blue cheese has a useful amount.

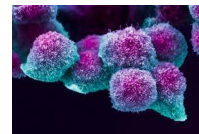
Non-Paleo sources (which we do not recommend) include soybean, peas, lentils, and broad beans.

Note that **COOKING** significantly reduces spermidine content. Boiling and grilling were most aggressive, steaming and microwaving less so.

So, eat raw when you can, cook gently if you must.

**Continued from Page 1**

### **Cancer & Body-clock Disruption**



... regulates their growth in a 24-hour rhythm. When they lose this rhythm, the cells grow faster, spread sooner, resist chemotherapy, and result in earlier death.

The World Health Organization has declared that disrupted body-clocks are a probable carcinogen. In this regard, night-shift workers, and those on rotating schedules, are additionally vulnerable.

**My View?** Down with clock changes! Fix the clock for good and preferably on astronomical time when the sun is at its height at noon. See also **Remove Phones, Sleep Better**, p2

**Viewpoint**

### **Organizing Society for an Industrialised world (V)**

*Who wants to return to the grinding poverty, drudgery, and insecurity of peasant farming? So what factors came together in England to trigger*

the worldwide prosperity of the Industrial Revolution and how do we nurture it? [Last month](#) [39] we looked at **Property rights and the Sanctity of contract**. This freed up individuals to take risks with new enterprises. Now it is the turn of **Using assets to make More assets**.

In the hunter-gatherer band there was no opportunity – or desire – to accumulate assets. Anything that was not portable or essential to existence was left behind when they moved on.

It was not until the development of farming and the rise of civilizations that all this changed. See: **A Technological Revolution and a Shift In Society**, [Deadly Harvest](#), [Chapter 2](#) [40], p. 29.

From that point on, wealth could be accumulated and much of it was captured by the elites. Mostly they locked it up in ways which were **NON-PRODUCTIVE**: from gold, and gewgaws, to massive investment in monumental buildings like the pyramids of Egypt and the grand temples and palaces of Babylon.

These, and other empires like the Roman, got rich also by running what one might call a protection racket – providing a guarantee of peace to subject peoples against payments of tribute.

Conventionally it was thought that the sum total of wealth in the world was constant and that one could get rich only at the expense of someone else. This view was challenged by the 18<sup>th</sup> C. Scottish economists, David Hume and Adam Smith.

In fact, they were living at a time when entrepreneurs discovered that wealth could be **CREATED**. In other words, money could be invested into ways of making more money.

This started, in England, with the mechanization of textile spinning in the 1780s. That was the start of the industrial revolution and **GROWTH** in the amount of wealth in the world.

That made everyone richer lifting even the poorest, in due course, to new levels of prosperity.

This could only work because of the presence of strong *property rights* and *sanctity of contract* that we

looked at [last month](#) plus the other factors explored in earlier months.

This system of using assets to multiply assets became known as capitalism. It had its drawbacks notably the tendency of those who had capital to cream off the profits of those who didn't, to rig markets, and to buy influence.

[Next month](#): **Part VI**. Synthesis and dangers to prosperity.

### Letters

From our Facebook page

<http://bit.ly/Bond-Paleo>

"I remember you from Cyprus. You gave a talk to a group of people who supported the Cancer Association in Paphos. I was involved with them. Excellent talk - thank you. Your work is fantastic. I believe in all you say. Thank you."

Sally Unsworth, Cyprus.

### Spreading the Word

Private lectures have begun again. Contact us if you have one to suggest: [admin@naturaleater.com](mailto:admin@naturaleater.com)

**Paleo in a Nutshell**: Geoff's latest work encapsulates, concisely and easily, current thinking on living the way nature intended. [www.paleo-nutshell.com](http://www.paleo-nutshell.com)



**Paleo Harvest Cookbook**: Over 170 delicious, Bond Precept conforming recipes [www.paleo-harvest.com](http://www.paleo-harvest.com)

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