



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

**Our Roots in Nature:** Green-space Deficit Disorders. **Ancestral Physical Activity:** Run to Stay Young. **Recipe:** Damson Plum Tart. **Human Social Dynamics:** Attractiveness – Women's/Men's Engagement Ring Strategies. **Q&A:** Paleo Halts Cognitive Decline; Coconut Oil – Poison? **News Shorts:** Antioxidant Deficit link to Age-related Macular Degeneration (AMD); Sunlight, not Vitamin D, Protects Brain Health; Hand Designed for Bone-breaking. **Ancestral Hard Wiring:** Men/Women Navigate Differently. **Hints & Tips:** Salmon & Tuna Fish Oil Review..

## Our Roots in Nature

### Green-space Deficit Disorders



Enlarge: <http://bit.ly/2Nkmm0L>

For years I have been writing about how human-beings are a part of nature and how our modern lives starve us from connection with the natural world. I have reported on many studies which find that this starvation undermines our health in many ways. See, for example: **Nixing "Nature Deficit Disorder"**, [May 2018](#) [1].

Now Caoimhe Twohig-Bennett, PhD of East Anglia University, UK, has carried out a massive meta-study (study of studies) on the effect of green-spaces on physical health [2].

She found that lack of exposure to green-space increases the risk of type II diabetes, cardio-vascular disease, premature death, pre-term birth, high blood pressure, high heart rate and stress.

Of course, many groups of people have long recognized – yea **FELT** – how good it is to commune with nature. The researchers highlight the Japanese practice of 'Forest Bathing' which is now popular in the West and often called 'Forest Therapy'.

Participants spend time in the forest sitting, lying down, or just walking around. But why does it work?

The researchers speculate that green-spaces provide better ...opportunities for physical activity and socialising. Maybe even exposure to different >4

## Ancestral Physical Activity

### Run to Stay Young

The higher the level of physical activity in middle-aged men & women (50 – 60 yrs) the better they age successfully [3]. So finds Professor Bamini <http://bit.ly/2NrJtX3> Gopinath, University of Sydney, Australia. She followed these middle agers for 10 years to see what happened to them.

Compared to those on the **LOWEST** level of total physical activity, those who engaged in the **HIGHEST** levels were **TWICE** as likely to **AVOID** stroke, heart disease, angina, cancer, diabetes, and **TWICE** as likely to be in optimal physical and mental shape 10 years later.

What were the levels of physical activity? Gopinath assessed what is known as 'METs' (metabolic equivalent minutes) per week.

The World Health Organization (WHO) recommends a minimum of 600 METs per week. That corresponds to 150 minutes brisk walking per week or 75 minutes running per week – in sessions of **AT LEAST 10 MINUTES AT A TIME**.

That doesn't sound too hard, but most people do not achieve even this level – yet Gopinath's **LOWEST** level was actually higher – 1000 METs per week. Her **HIGHEST** level was 5000 METs a week.

Now that figure did give me pause.. it corresponds to running 100 minutes (8 to 10 miles ) a day, 6 days/week >2



## Recipe

### Damson Plum Tart

Yield: 8 servings



Enlarge: <http://bit.ly/2NSDZ7a>

This is one of the best tasting tarts that we have done. It has great mouth-feel, looks beautiful and is only 200 kcal per 100g. The damson plums are best in season. They can be replaced by other fruits, like apples, peaches etc.

#### Pastry Crust

almond flour about 5oz (140g)  
 $\frac{1}{4}$  teaspoon baking powder  
 1 teaspoon xanthan gum  
 1 Tblspoon xylitol  
 4 Tblspoon water, or more if needed

#### Filling:

400 g stoned damson plums (cut in halves)  
 4 Tblspoon erythritol, or to taste  
 $\frac{1}{2}$  Tblspoon vanilla extract  
 10 g slivered almonds >page 2.

## Human Social Dynamics

### Attractiveness: Women's/Men's Engagement Ring Strategies

Men are willing to purchase more showy, expensive engagement rings when they imagine themselves with an attractive woman rather than a woman with average looks [4]. Women envision larger, more pricey rings for themselves if their partner was less >3

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## Damson Plum Tart

1. Take a medium-size mixing bowl and, with an electric hand-mixer, beat the almond flour with the baking powder, xanthan gum, xylitol and water. Mix thoroughly until combined to a pastry of thick consistency. Hand knead the dough and form into a ball.
2. Take a round 7-inch diameter spring-form baking dish, and using your hands, flatten the dough into a thin layer at the base of the dish. Make a low rim around the edge. Prick the dough with a fork.
3. Bake in a hot oven at 320°F (160°C) for 20-22 minutes, until lightly browned.
4. Meanwhile simmer the plum halves over low heat for 15 to 25 minutes, or until soft (depending on ripeness).
5. Sweeten with 3 tablespoons of erythritol. Mix in the vanilla extract.
6. Lay out the plum halves (cut-side-up) in concentric circles on top of the almond crust.
7. Sprinkle the last 1 Tblsp of erythritol and the slivered almonds over the plums.
8. Enjoy a slice!



Enlarge: <http://bit.ly/2NnN9te>

Whole recipe: <http://bit.ly/2xvTrE>

### Questions

#### Paleo Halts Cognitive Decline

**Q.** *What do you think of this experiment which was able to reverse cognitive decline [5]? They had a low glycemic, anti-inflammatory, low grain diet; at least 12 hours between dinner and breakfast; yoga for stress reduction, exercise and brain stimulating games/devices; supplementation where needed.*

**A.** Interesting to see the protocols they used on their patients - the main principles follow [#BondPaleo](#) precepts. Eliminate gluten, starches and sugars; plenty of fish oil, plenty of plant food, plenty of exercise, plenty of sleep, plenty of the sunshine vitamin D (as pills), measures to improve gut health, measures to improve oral health, etc. However, no mention of dairy.

It is interesting that the post-menopausal woman went back on HRT. As *'The Female Eunuch'* feminist author Germaine Greer said: "HRT made her vagina more 'penetrable'" [6]. Does a resumed sex-life have beneficial side effects? This deserves further study.

The participants in the experiment had to fast overnight for 12 hours. I have written about this several times - often using the technical term 'Chrono-nutrition'. That is where, say, one fasts overnight for 12 to 14 hours (Dinner at 7:00 pm thru to breakfast at 9:00 am)

See: [Meal Size and Timing, Aug 2016](#) [7], [Chrono-nutrition/Sun-skin Repair, Sept 2017](#) [8], and chrono-types: [Night Owls: 'Fast-Life' Histories, Aug 2017](#) [9].

#### Coconut oil - Poison?

**Q.** *What do you make of Harvard Professor Dr Karin Michels' claim that coconut oil is pure poison [10]? - And British Heart Foundation dietician, Victoria Taylor's view that: "replacing saturated fats with unsaturated fats like vegetable oil, olive oil and sunflower oil would be a healthier choice" [11]?*

**A.** As usual much humbug and misinformation here.

Although coconut oil is a saturated fat, it is a plant fat and it is an unusual one to boot - lauric acid. Due to the saturated fat's position on the triglyceride molecule, most of it is not absorbed into the body. See: [Palm Oil: Friend or Foe?, Oct 2011](#) [12]

The bottom line is that coconut oil is not great, but definitely not poison. See [Coconut oil Mania, Oct 2011](#) [12].

The advice of Victoria Taylor is equally flawed. She lauds and mingles a neutral oil, (olive) with a bad, omega-6 oil (sunflower) and doesn't even mention the 'good' omega-3 oils (like rapeseed and fish oils) as the way to go.

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## Run to stay Young

So I looked into the study's fine print. Gopinath admits two flaws: **a)** She relies on the participants **REMEMBERING** their physical activities at **FIVE-YEAR** intervals!

**b)** Most participants were not tidily running or walking anyway. They were gardening, doing housework, cleaning the car and so forth. Gopinath admits:

**c)** People exaggerate and over-estimate their true physical activity [13]

**d)** The study would have carried more weight if the participants had worn activity monitors

**e)** Other studies find that most health gains are obtained at lower levels of 3000 to 4000 METs per week [14].

But, she concludes, whatever the absolute numbers, any increase in physical activity is beneficial - and we should all do more within our abilities.

She highlights what physical activity does: it reduces chronic inflammation [13] which is the chief factor in degenerative diseases [15],

Moreover it improves telomere length. Telomeres are the caps on the ends of the chromosomes to protect them from damage. See: [Telomeres & Antiageing, March 2010](#) [16]. In this way physical activity slows down ageing [17].

**My View?** Looking at the forager template, I reported in: [We're Born for Heavy Breathing, Nov 2016](#) [18]

"Hadza hunter-gatherers are 'Moderately to Vigorously Active' for some 135 minutes a day [19]. This level of activity typically produces a heart rate going from 55% (moderate) to 89% (vigorous) of its maximum. Even old people function at this activity level. Their lives consist of plenty of walking, lifting and generally being up-and-doing."

So, yes, the forager template certainly reinforces the notion that some 3000 METs per week is the optimum for young and old alike.

See [Viewpoint Next Month](#)



### News Shorts

#### Antioxidant Deficit/Age-related Macular Degeneration (AMD)

High consumption of vegetables rich in carotenoids and fatty fish omega-3 fatty acids was beneficial for those at risk of AMD. High glycemic index diets and alcohol consumption of greater than two drinks a day had increased association with AMD [20]. So finds Naoko Chapman, University of Auckland, New Zealand.

Meanwhile, Prof Bahimi Gopinath whom we met in Run to Stay Young, page 1, finds that an orange-a-day keeps AMD at bay [21].

Says Gopinath: "We focused on flavonoids because they are powerful antioxidants found in almost all fruit and vegetables, notably oranges, apples, red wine and tea.

Gopinath spoils her case by saying that: "The data did not show a relationship between other food sources protecting against the disease".

Hey – what about the **CAROTENOIDS** and **FISH-OILS** that Naoko Chapman (above) talks about? After all, we've known for decades that two **CAROTENOIDS**, ("lutein" and "zeaxanthin"), are vital to save the retina from AMD. I wrote about them 20 years ago in Natural Eating, [Ch 8](#), [22] page 154.

**My View?** Foragers typically had perfect eyesight for their entire lives [23]. It is clear that AMD is a lifestyle disease and the Paleo precepts are the way to go.

#### Sunlight, not Vitamin D, Protects Brain Health

According to Professor Mark Hutchinson, University of Adelaide, Australia, ultra-violet light (sunlight) seems to trigger molecular processes in the brain in a manner that has nothing to do with vitamin D.

These processes, which are not fully understood, seem to be necessary for good brain health. When they are not activated by sunlight, the brain malfunctions, leading to multiple sclerosis, Parkinson's disease, Alzheimer's disease or other brain-related disorders.

Meanwhile, Prof. Hutchinson's study found no benefit from taking vitamin D tablets [24].

**My View?** Once again we find we cannot second-guess nature's intricate workings. Living the way nature intended is the only way to cover all the bases.

#### Hand Designed for Bone-breaking



Force-testing Stone Tool on Bone  
Enlarge: <http://bit.ly/2Nxl4j1>

Throughout human prehistory humans were avid consumers of bone marrow. It had two big advantages for foragers:

a) It was easy to collect: there was little competition for the large bones left behind by a lion (for example) after it had finished feasting on its kill.

b) The marrow was rich in fat – which is such a scarcity in the savanna environment that **ANY** source of fat was avidly sought after.

Now scientists are pondering whether bone-marrow was so important to human survival that the human hand is specifically designed for the purpose of cracking bones.

Professor Tracey Kivell, University of Kent, UK, led a team to test this hypothesis [25].

They measured the force experienced by the hand of 39 individuals during either nut-cracking or bone-cracking with a hammer-stone. They found that nut-cracking requiring the lowest pressure while bone-cracking required the greatest pressure. The thumb, index finger and middle finger were always most important.

This difference helps explain why apes have hands that can crack nuts but have never adapted to cracking bone.

**My View?** Many Paleo enthusiasts make a point of including bone-marrow in their diet. Many people get it anyway in their hot-dogs and hamburgers. But should we go out of our way to eat it?

Not in my view. Today we are overwhelmed with fats of all kinds and

it is a major challenge to strip them out of the diet.

Moreover, bone marrow does not bring anything special to the modern table. It is almost entirely fat (85%) plus some protein (14%). Moreover the fats are not worth seeking. Depending on the animal, the season and other factors, the fat is some 45% saturated fat (30% palmitic, 15% stearic) and 45% monounsaturated oleic acid [26].

### Ancestral Hard Wiring

#### Men/Women Navigate Differently

According to Alexander Boone, UC Santa Barbara, USA, when men are navigating in a known environment, they prefer to take shortcuts to reach their destination more quickly, while women tend to use routes they know and wander [27].

Mind you, PC-wise Boone, is swift to point out that this is just on **AVERAGE**. Some stronger performing women will do better than some men at the weaker end of the Bell Curve:



Boone speculates that women wander because they are uncertain of their sense of direction and need to scope out the options.

**My View?** This study treads a well beaten path (!). All the evidence points to a major, hard-wired, split in gender roles in forager times. I dealt with this in great length in: **Male/Female Wayfinding Differences**, [Feb 2016](#) [28]

### Continued from Page 1

#### Attractiveness: Women's/Men's Engagement Ring Strategies

attractive. In addition, women who rated themselves as being physically attractive were more likely to go for larger, more expensive rings, regardless of their partner's looks.

Say the researchers: "These findings are consistent with the notion that desirable women expect greater resource investment from their mates."

**My View?** This chimes with the observation of forager dynamics where a woman, in order to capture a man, needed to be physically

attractive – which is a proxy for fertility and good genes. See: **Fertility Assessment**, *Deadly Harvest*, [Ch 8](#), p 215 [29].

Meanwhile, a man, in order to attract a woman, had to demonstrate his ability to provide status and resources;

See: **Male-Female Relations**, *Deadly Harvest*, [Chapter 8](#), page 208 [29]

### Hints & Tips

#### Salmon & Tuna: Fish Oil Review

A [consumerlab.com](#) report examines the level of fish oils in various American canned salmon and tuna products [30].

They found that the fish-oil content was all over the place. It varied from brand to brand and even from can to can. But, as is to be expected, salmon is a much better source of fish oils than tuna.

Of the salmon products, Deming's Red Sockeye Wild Alaskan Salmon was the best, followed by Vital Choice ditto

and then Trader Joe's Sockeye Salmon.

Of the tunas, only Vital Choice Solid White Albacore, and Wild Planet Skipjack Wild Tuna, had useful levels of fish oils.

**My View?** Eat canned salmon, from whatever source, for its fish oils – you will get something useful but won't know just how much. Eat canned tuna as a good quality protein source, but don't count on it for fish-oil.

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#### Green-space Deficit Disorder

bacteria benefits the immune system and reduces Inflammation. Japanese research has an interesting angle: trees release powerful chemicals called phytoncides. They do that to protect themselves from bacteria, fungi and insects.



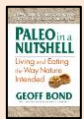
In humans, these same chemicals strongly improve the activity of the

immune system's natural killer cells, boost anti-cancer lymphocytes and reduce stress hormones [31].

**My View?** Join the club! But interestingly, this study focuses on the physical benefits of green-spaces. Many of the other studies focus on green-space benefits to mental and behavioural health.

But the basic message stays the same: our savanna-bred psyches **NEED** natural surroundings for mental and physical well-being.. Concrete jungles – or just being indoors all day, introduce a strong feeling of alienation and physical sickness.

**The Human Zoo**, [Dec 2005](#), **Ocean Views for Mental Health**, [May 2016](#); **Green Spaces Lower Anxiety and Depression** [May 2010](#); **Landscape for Mood**, [Oct 2006](#); **Greenery Reduces Kids' Obesity**, [Nov 2008](#); **Nature Calms ADHD**, [July 2005](#). **Healthy Urban Living: Reconnect with Nature**, [Feb 2017](#)



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



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