



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

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Letter

Getting Kids Fitter

From: Peter Harris, Melbourne, Australia.



<https://bit.ly/2RJatEG>

(Spot the ball!)

“Hi Geoff, I was interested in reading [last month](#) of what you do for fitness. By coincidence, only 2 days earlier, I’d taken my girls to the local squash court to have a go.

“I had not been for about 10 years and miss playing. They didn’t want to leave the house at first (craft and reading) but they had a fantastic time once there. I was a bit surprised actually and very pleased!”

My View? > p 4

News Shorts

Med Diet linked to Better Thinking in old age

People who eat a Mediterranean-style diet -- particularly one rich in green leafy vegetables and low in red meat -- are more likely to stay mentally sharp in later life [1].

So finds a study of some 500 people over 79 years old without dementia.

My View? This is another study finding a correlation between diet and cognitive function. **> p 4**

Question of the Month

“Holy-fat” Energy Snacks



www.holy-fat.com [Trail runner](#)

Q. What do you make of these French energy snacks? They are for a trail runner who will cover 8 hours a day for 18 days, starting with a maximum of 18kg of provisions for the 18 days.

A. In the form of a pouch filled with a nut paste, these snacks are mainly composed of a variety of milled nuts (85%); the rest is made up of coconut oil and cocoa powder. So they are certainly a concentrated source of energy – some 700 calories per 100 grams.

The main selling point seems to be that they are sugar-free, “free-from” junk ingredients, and keto conforming (keto? - see [2]).

The makers promote the use of the coconut oil as it is rich in “medium chain fatty acids” (MCTs). MCTs have achieved a cult status with endurance athletes since they are reputed to increase fat burning, satiety, and physical performance. However, other studies find no benefit for performance [3].

My View? At €24.00 (\$28.00) for a 336g (24 oz) pack, this is an expensive way to buy nuts! However, trail-running fanatics might **> p 4**

News Shorts

Male/Female Wayfinding Update

It is well established that men perform better than women when it comes to specific spatial tasks. Notably I reported on a remarkable study of male and female brain-scans using MRI technology in **Male/Female Wayfinding Differences, Feb 2016** [4] and **Men/Women Navigate Differently, Aug 2018** [5].

Now, specialist of the Hadza tribe, Brian Wood of University of California, Los Angeles, has come at the question from a quite different angle [6].

He fitted up Hadza tribesmen and tribeswomen with lightweight GPS trackers which logged over 13,000 miles of travel over 13 years. The ages ranged from 2 years old to 84 years old.

Said Wood, “Hadza men and women essentially occupy different worlds from a young age. Most of the landscape was effectively gender-segregated.

“Men walked further per day, covered more land in less direct paths and were more likely to travel alone. In this hunting and gathering context, male work is more navigationally challenging.”

Some men’s day journeys extended to 20 miles or more, but on average men traveled eight miles per day with high ‘sinuosity’ – that is they zigzagged about a lot.

Women -- many of them accompanied by young children -- averaged nearly five miles and steered more in a straight line. **> p 4**

Evolutionary Physical Activity

How Geoff stays Paleo-fit II

Continued from [last month](#): The first priority is to get at least 30 minutes exposure to daylight in the morning (see: **Forager vs Modern Light Exposure**, [May 2018](#) [7]).

So, without fail I go out for a little run of at least 30 minutes in the morning daylight. I slow jog for at least 1.5 miles (2.5 km) and usually mix in power-walking and short sprints (see **'Short, Intense Exercise'**, [Dec 2006](#) [8] & **'One Minute per Day'**, [Dec 2005](#) [9].) Depending on terrain, I aim to get an average pace of at least 4 mph (6.5 km/hr).

On non-games days (see [last month](#)) I jog an additional 2 miles (3.5km) or so, making a total of 3 to 4 miles.

For all this activity I wear 'minimal' five toed Vibram 'bare-foot' shoes. This is so that the joints, muscles and



<https://bit.ly/3vgv3ea>

tendons of my feet are kept in trim, just like nature intended. See **Barefoot Running** [Aug 2019](#) [10]

At least twice a week I include a route that has a hard hill climb and/or several storeys of steps. See [11]



<http://bit.ly/2X0YP6p>

Berns trail summit, Palm Springs [12]

During my annual California speaking tour based in Palm Springs, most of my running is actually hiking up and down the precipitous trails made by bighorn-sheep through the local hills (see: **Geoff's Health Status** [Dec 2010](#) [13]) and **Holy-energy Snacks**, p. 1 I also include 10 minutes of twisting, strength and stretching exercises in accordance with squash warm-up protocols.

Cont: [Next Month](#) – Strength, Load-carrying, & close.

News Shorts

High Fructose Intake Depresses Immune System

A diet high in fructose reprograms immune system functioning in previously unknown ways [14].

The bottom line is that inflammation is increased in such a way that it multiplies up the production of yet more inflammatory molecules called cytokines.

The researchers say that this knowledge helps explain how chronic fructose intake is linked to obesity and diabetes.

My View? Fructose in modest quantities, such as we get in eating a portion of fruit (but not fruit juice) is perfectly healthy and normal. See: **Fructose: It's all in the Dose**, [June 2012](#) [15].

But we have known for a long time that, in excess, fructose becomes a villain. See: Inset **Fructose, Deadly Harvest**, [Ch 6](#) [16], p 145 and **Fructose: Liver attack**, [June 2012](#) [17]

Where does all this excess fructose come from? The biggest culprits are regular sodas which are almost all sweetened with High Fructose Corn Syrup (HFCS). But HFCS is also added to a wide range of processed foods, sweetmeats, desserts and so forth,

Prof. Robert Lustig, MD of California University, San Francisco (UCSF) is an outspoken critic of fructose added to our diets, particularly for children. He explains the problem well in his YouTube video – which has 13m views – **Sugar the Bitter Truth**. <http://youtu.be/dBnniua6-oM>

Gut Worms: Antiageing Therapy?

We have written on many occasions about how 'good' gut worms have a strong connection to a healthy immune response, See **Gut Worm Helpers**, [Jan 2018](#) [18].

The **LOSS** of gut worms is linked to a range of inflammatory diseases, including asthma, atopic eczema, inflammatory bowel disease, multiple sclerosis, rheumatoid arthritis and diabetes.

Basically, our immune systems evolved to function in a dirtier world, which included various microbes and gut worms.

Gut worms have become master manipulators of our immune system in order to dodge its attack. Meanwhile, we have evolved tolerance of their presence.

Now a study suggests that good gut worms have a role in anti-ageing [19]. They do this by **REDUCING** the chronic inflammation which increases with age, a process dubbed 'inflammageing'.

INFLAMMAGEING is a major factor in heart disease, dementia, cancer, chronic obstructive pulmonary disease, osteoporosis, age-related eye disease (macular degeneration) and Covid severity.

The researchers balk at advising everyone to be seeded with hookworm, whipworm and the like. Instead they suggest research into identifying the 'good' proteins and other chemicals secreted by gut worms and medicating with those instead.

My View? I too, balk at deliberately seeding myself with gut worms but, unlikely as it is, if I suffered a stubborn auto-immune disease like rheumatoid arthritis, I might consider it.

On the other hand, the evidence suggests that 'gut worm helpers' are not essential to avoiding inflammageing and that living as nature intended is good enough.

See: **Personality & Lifespan**, next.

Personality & Lifespan

Many studies find that people who have "conscientious" personalities can have up to a 35% **REDUCED** risk of death compared to those who score low on this personality trait.

"Conscientiousness" is one of the 'Big Five' personality traits [20] and is defined as: 'being responsible, organized, and having good self-control'.

Conscientious people, by their very nature, tend to have healthier lifestyle behaviours, but this did not seem to be the entire answer.

Inflammation: Now a study discovers that conscientious people have lower levels of the inflammatory immune cytokine, "Interleukin-6" (IL-6) [21]. And, say the researchers, "there are likely further biological mechanisms yet to be identified".

My View? There is not much you can do about the personality you are born with, see: **Personality is in the Genes**, [March 2016](#) [22]. And that seems to dictate, in part, your levels of inflammation through IL-6.

But, whatever your personality, you can still make the most of your life-expectancy by **LIVING** the way nature intended. It's just that some personalities will find it harder!

Outdoor life, low Breast Cancer

A Danish study finds that women, who worked outdoors for 20 years or more had a 17% lower risk of breast cancer [23].

Say the researchers, "Outdoor workers are exposed to more sunlight, boosting their levels of vitamin D, which protects against cancer".

They observe that, in Denmark, most of the vitamin D would have been formed:

- during the summer and,
- during the middle hours of the day (10:00 to 15:00).

This exposure is enough to build up sufficient vitamin D stores in the body's tissues to last through the winter.

My View? The subjects worked out of doors in occupations like farming and horticulture. Such workers are not in the habit of using sunscreens. Sunshine is essential human food! The link between sunshine starvation and cancers in general has been known for a long time and I have reported on this subject repeatedly. See: **Sunshine Beats Cancer: Really**, [Oct 2005](#) [24].

Fruit & Vegetable Protocol for Maximum Lifespan

Compared to those who consumed two servings of fruit and vegetables per day, participants who consumed five servings a day of fruits and vegetable had a 13% lower risk of death from all causes; a 12% lower risk of death from cardiovascular disease, including heart disease and stroke; a 10% lower risk of death from cancer; and a 35% lower risk of death from respiratory disease, such as chronic obstructive pulmonary disease (COPD) [25].

My View? So far so good. But the study also found that: "starchy vegetables, such as peas and corn, fruit juices and potatoes were **NOT** associated with reduced risk of death."

So, yes, we have to think Paleo when choosing our fruits and vegetables. Notably we should avoid the starchy and sugary ones. Fruit juices are a particularly insidious source of blood-sugar spikes.

Back to our Roots

Arabian Sands - Thesiger VII End of a world

Thesiger carried out his explorations in 1946-1950 – within the lifetime of many of us. Bahrain, Abu Dhabi and Dubai were just grindingly poor fishing villages with populations of a few thousand people each.

Slavery was rampant. Thesiger relates how, in the village of Hamasa, kidnapped Baluchi (from Pakistan), Arabs and Persians were sold for 1,000 – 1,500 rupees and, writes Thesiger: "For a young Negro even more". But Thesiger anticipated the massive changes coming with the discovery of oil.

No one laments the abolition of slavery, but within a couple of years, Thesiger began to see the oil companies rampaging over the Empty Quarter in massive, balloontyred, desert-going trucks where only a year or two earlier he had traveled in the only way possible – on a camel.

Of the Bedu, Thesiger writes: "I was humbled by those illiterate herdsmen who possessed in so much greater measure than me, generosity and courage, endurance, patience and light-hearted gallantry." But, he goes on: "I realized that the Bedu, with whom I had lived and traveled, were doomed."

He saw the proud, independent Bedu tribesmen seduced into a life of comparative material security working as day-laborers in the grubby shanty towns that grew up around the oil installations. Their wondrous desert survival skills of tracking, camel husbandry, hunting, foraging and remarkable wayfinding

(see: **Male/Female Wayfinding Update**, p 1) had become irrelevant.

By the Way

Climate Change & Megafauna Extinction



Mastodon [26]

<https://bit.ly/3gtggbO>

Before about 10,000 years ago, all the Earth's continents were populated with now-extinct megafauna like giant sloths, mammoths, giant kangaroos, mastodons and many more.

Their disappearance seems to coincide with migration of hunter-gatherers into their areas. However, I have always been sceptical of the view that humans were therefore responsible for wiping out these creatures.

After all, hunter-gatherers have co-habited for millions of years with African mega-fauna like the elephant, giraffe, rhinoceros and hippopotamus, without driving them to extinction.

Indeed it is hard to imagine that a small band of humans, surrounded by their vast territory of 200 square miles, could have much impact on the teeming wildlife there.

On the contrary, the average hunter focused his energies on much easier small-game such as warthogs, spring-hare, guinea-fowl and bustard. See: **Men's Work, Deadly Harvest**, [Chapter 1](#), page 16 [27].

Now a study finds that, in North America at least, the mega-fauna succumbed to climate change [28]. Their numbers fluctuated as the ice-ages came and went and a particularly sudden and deep cold snap, "The Younger Dryas", some 13,000 years ago, finished them off. See: **Comet Strike Starts mini Ice-age**, [May 2017](#) [29].

Humans arrived in the Americas about the same time, but they were innocent bystanders: it is a case of 'correlation', not 'causation'.

My View? We can stop worrying about whether our ancient ancestors caused any extinctions, and focus on the very real extinctions humans are responsible for today.

Continued from Page 1

Med Diet linked to Better Thinking in old age

Nevertheless it is a straw in the wind. The "Med Diet" is halfway house to Paleo, so Paleo will be even better for optimum brain function.

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"Holy-fat" Energy Snacks

find the convenience and special formulation worth the extra cost. At least these energy snacks are very low glycemic unlike some of the really bad, sugary, energy snacks on the market. See: **Endurance Energy Bars**, [May 2006](#) [30].



As an aside, I would question the wisdom of such extreme endurance activities. See: **Ultra Running – too**

much of a good thing, [Sept 2014](#) [31] and **Not all Exercise is Good**, [Dec 2005](#) [32]

See also: **Paleo Endurance Athletes are Incredible Fat Burners**, [Dec 2015](#) [33]

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Letter: Getting Kids Fitter

My View? Well done Peter. Even if your girls were involved in worthy activities like craft



and reading, it is important to balance that up with sufficient physical activity.

Many parents will have an even more difficult task – to separate their kids from their electronic screens – that requires major surgery – without anaesthetic!

Continued from Page 1

Male/Female Wayfinding Update

Gender-different abilities emerged by the age of six. Hadza women worked in a group with other women and routinely feared encountering dangerous animals or unfamiliar

men. (Woman-theft was a common feature of hunter-gatherer life, see **Women wired for stranger-danger** [34]) They often requested to be guarded by an armed man or older boy while foraging.

Wood argues that over the last 2.5 million years, men's and women's brain circuitry evolved separately for different abilities. The two abilities combined enabled the species to survive. This ability-split has "dramatically shaped how our species uses space."

My View? We have met Brian Wood before in **Is Honey all right after all?**, [Nov 2014](#) [35], and his co-authors, Herman Pontzer in [36], and Alyssa Crittenden in [37]

See also: **Working Patterns, Deadly Harvest**, [Ch 8](#) [38], p 201, where I also highlight how, through the eons, men had a vital role as bodyguards for their womenfolk. Nowadays, we dispense with this male responsibility, but at some cost to female safety.

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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1 Janie Corley, Ian J. Deary. Dietary patterns, cognitive function, and structural neuroimaging measures of brain aging. *Experimental Gerontology*, 2020; 142: 111117 DOI: 10.1016/j.exger.2020.111117

2. **The Ketogenic Diet**, [Apr 2010](#)
<http://bit.ly/1HCNFFF>

3 Miriam E. Clegg (2010) MCTs not beneficial to exercise performance, *Int J Food Sc & Nutrition*, 61:7, 653-679, DOI: 10.3109/09637481003702114

4 <http://bit.ly/2a82vM5>

5 <http://bit.ly/2OwvnyC>

6 Brian M. Wood, Gendered movement ecology and landscape use in Hadza hunter-gatherers. *Nature Human Behaviour*, 2021; DOI: 10.1038/s41562-020-01002-7

7 <http://bit.ly/2ue2nEu>

8 <http://bit.ly/2nkhfvx>

9 <http://bit.ly/1PGmmNv>

10 <https://bit.ly/3uShiSK>

11 **Stair Climb to Test Heart Health**, Jan 2021, <https://bit.ly/31pjWCu>.

Short Bouts of Stair Climbing are Healthful, Feb 2019, <http://bit.ly/2TXiEqY>

12 <https://bit.ly/3deXuD0>

13 <http://bit.ly/eqq9Og>

14. Nicholas Jones, Fructose ... inflammation. *Nature Communications*, 2021; 12 (1) DOI: 10.1038/s41467-021-21461-4

15 <http://bit.ly/1mbMA2h>

16 <http://bit.ly/DH-6>

17 <http://bit.ly/1mbMA2h>

18 <http://bit.ly/2oFlhgg>

19 Bruce Zhang: Parasitic worms as an anti-inflammatory therapy? *eLife*, 2021; 10 DOI: 10.7554/eLife.65180

20 Extroversion, Agreeableness, Conscientiousness, Neuroticism, Openness to experience.

21 Páiraic S. O'Súilleabháin, Interleukin-6 links conscientiousness to mortality risk; DOI: 10.1016/j.bbi.2021.01.032

22 <http://bit.ly/2daclYg>

23 Julie Elbaek Pedersen. Occupational exposure to solar ultraviolet B radiation and breast cancer. *Occup. Environ Med*, 2021; DOI: 10.1136/oemed-2020-107125

24 <https://bit.ly/3kx8igp>

25 Dong D. Wang, Fruit and Vegetable Intake and Mortality: *Circulation*, 2021; DOI: 10.1161/CIRCULATIONAHA.120.048996

26 Dreamstime stock photo.

<https://bit.ly/3gtggbO>

27 <http://bit.ly/DH-1>

28 Stewart, M., Carleton, Climate correlates with Late Quaternary megafauna declines 2021 DOI: 10.1038/s41467-021-21201-8

29 <http://bit.ly/2eL79Fi>

30 <http://bit.ly/2asbKK4>

31 <http://bit.ly/1llm7V3>

32 <http://bit.ly/2txZgqe>

33 <http://bit.ly/20QrPtA>

34 Jan 2016, <http://bit.ly/2bLVMHG>

35 <http://bit.ly/1xHBuqV>

36 **Hadza Forager Energy Expenditure same as Westerners**, [Sept 2012](#)
<http://bit.ly/1LK0yVl>

37 **Risk-taking Forager Males**, [Nov 2017](#)
<http://bit.ly/2AN9Xri>

38 <http://bit.ly/ch-8>