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

Unintended Consequences: Abundant UVB – Sharp Eyesight. **Memorable Quote:** Mackay – Men go Mad in Herds. **Human Physical Activity:** We're Born for Heavy Breathing. **Ancestral Health:** Our Living Gut – Part VI. **Food Ideas:** Christmas Paleo Panettone. **Q&A:** Sea Buckthorn Powerhouse; Hempseed Safety. **Unintended Consequences:** Excess Folate, B12 in Pregnancy greatly ups Autism Risk; Folate Fortification Failure; Calcium Pills Damage Heart; Prostate Drug/Dementia Link. **News Flashes:** Minimalist Shoes Boost Leg & Foot Muscles; Walk Faster, Sit Less; How the Heart turns into Bone. **Events Diary**

Unintended Consequences

Abundant UVB – Sharp Eyesight



The studies keep coming: sunlight is vital to develop good eyesight.

The latest one focused on one aspect of sunlight – its UVB rays. These rays form 5% of sunlight, the rest is 95% UVA. UVB rays are the ones that make vitamin D and which, when reddening the skin, are nature's overexposure signal.

The latest study, published in the prestigious JAMA, finds that adolescents who had LEAST exposure to UVB rays were TWICE as likely to develop myopia than those who had the most [1]

My View? We are born to live outdoors – and if we don't, all kinds of things go wrong – and even our eyeballs don't develop properly. See my previous articles:

Sunlight Starved Myopia, [May 2016](#) [2]

Myopia & Time Indoors, [Nov 2015](#) [3]

Outdoor Life for Eyesight, [Aug 2013](#) [4]

Memorable Quote

Frailty of Human Rationality

"Men go mad in herds, while they only recover their senses slowly and one by one" – Charles Mackay, author of his 1841 book:

Extraordinary Popular Delusions and the Madness of Crowds.

Mackay was writing about financial bubbles (like Tulip Mania & South Sea Bubble) but the same can be said of Food Fads too!

Human Physical Activity

We're Born for Heavy Breathing



Hadza band moves camp

According to latest studies from their homeland in Tanzania, the Hadza hunter-gatherers are 'Moderately to Vigorously Active' for some 135 minutes a day [5].

Examples are: from walking briskly at 4 mph (Moderate) to jogging at 6 mph (Vigorous).

The Hadza's physical activity level is FOURTEEN TIMES that of the average American. It is even FOUR TIMES that of the widely unattained activity levels recommended by the US Office of Disease Prevention and Health Promotion (ODPHP).

This level of activity typically produces a heart rate going from 55% (moderate) to 89% (vigorous) of its maximum.

The study found that even old people were functioning at this activity level and they often surpassed the youngsters.

The researchers find that this life, consisting of plenty of walking, lifting and generally being up and doing, helps to protect the Hadza's hearts against disease.

They had low blood pressure, excellent triglyceride and cholesterol profiles; and very healthy markers of inflammation and infection (C-reactive protein [CRP] and immunoglobulin E [IgE]). > p 4

Ancestral Health

Our living Gut – part VI

[Last month](#) [6] We saw how gut dysbiosis is a factor in Multiple Sclerosis. We continue:

It Takes Guts to Build Bone

Interestingly, Dr Gerard Karsenty, Columbia University, finds that it takes guts to build bone [7]. Most of us are familiar with the compound called "serotonin". It has received some fame for controlling brain function, notably mood.

However, the gut ALSO produces serotonin – and in much larger quantities. Karsenty has discovered that the more the gut produces serotonin, the more it depresses bone-building. Frustratingly, Karsenty has not been able to identify why the gut produces more or less serotonin. However, it would be surprising if the gut bacteria did not have something to do with it.

Other findings show that bone formation is delicately orchestrated by the brain. It does so by sending and receiving signals via the nerves and hormone systems [8]. It's as if the brain sends out a global memo saying 'make more bone'. Bone-making cells can fine-tune this directive, saying: 'we're not going to waste time putting on bone here when more is needed over there'.

Cystitis, Bladder Irritation and Pelvic Pain

Dr David Klumpp at Northwestern University School of Medicine has discovered another, quite unexpected effect. Remarkably, he finds that the colon cross-talks with the bladder [9]. When the colon feels irritation, > p 4.

Food Ideas

Christmas Paleo Panettone



Enlarge: <http://bit.ly/2gCNB5C>

Yield: 20 to 30 slices
(Depending on thickness)

Particularly good for afternoon tea or continental breakfast.

Alternative helper: Use a Ready Mix from www.Uggfoods.com. Use 20% discount code: **Bond20** Recipe here: <http://bit.ly/Ugg-Panettone>.

Nicole's Conventional Recipe

½ cup raisins (about 2.5 oz)
3 tablespoons dark rum
6 eggs, omega-3
½ cup coconut milk
4 tablespoons olive oil
3 tablespoons vanilla extract
2½ cups almond flour (about 9 oz)
3 tablespoons coconut flour
1½ teaspoon baking powder
5-6 tablespoons xylitol, to taste
4 tablespoons chocolate chips
olive oil spray

1. In a small bowl soak the raisins in hot water for about 10 minutes. Drain the raisins, add the rum and mix well. Set aside.
2. Break the eggs and carefully separate the yolks from the whites into 2 separate mixing bowls.
3. Beat the egg yolks with an electric hand-mixer, together with the coconut milk, olive oil and vanilla extract. Add the almond flour, coconut flour and baking powder and blend to a smooth consistency. Sweeten with xylitol to taste. Set aside.
4. Beat the egg whites with an electric hand-mixer until very stiff.
5. Add the egg whites progressively to the yolk mixture, stirring

carefully to obtain a smooth, but fluffy mixture.

6. Add the raisins and chocolate chips into the mixture.
7. Spray an 8-inch (20 cm) ring cake mould with the olive oil and fill with the mixture.
8. Bake in a hot, fan assisted oven at 320°F (160°C) for about 45-50 minutes.

IMPORTANT: check the center for doneness.

See also: **Rich Christmas Cake**, [Nov 2014](#) [10]

Questions

Sea Buckthorn Powerhouse



Q. What about sea buckthorn?

A. It's good if you can find it. We are lucky in that a local fruit market stocks it frozen at a fair price.

A team at Saskatchewan University, Canada, finds that these berries (about the size of blackcurrants) are packed with wondrous phytonutrients [11].

The berries are rich in fat soluble vitamins A,D, E & K, antioxidants (e.g. vitamin C, beta-carotene, and lycopene), essential fatty acids, phytosterols, carotenes and flavonoids, in addition to chemical elements (e.g. iron, calcium, etc.)

The only drawback: like cranberries, sea buckthorn berries are very sour and astringent – but a spoonful of honey soon makes this medicine go down! [Or an approved polyol sweetener like erythritol or xylitol]

See: **Dry Eye & Sea Buckthorn**, [April 2014](#) [12].

Hempseed Safety

Q. Is hemp seed safe to use? I believe it is a kind of marijuana.

A. Yes, hemp seed is quite safe even though it is closely related to marijuana (cannabis). The strain of hemp seed approved for human consumption does not have any of the psychoactive substance called THC. [More's the pity, some might

say!] Meanwhile it is rich in omega-3, protein, and fibre.

For further information on the qualities of hempseed, see my previous articles:

Hempseed Conformity, [July 2011](#) [13],
Hemp seed, [Dec 2009](#) [14]
Hemp High, [April 2001](#) [15].

Unintended Consequences

Well-meaning meddling often makes things worse...

Excess folate, B12 in Pregnancy greatly ups Autism Risk

On many occasions I have berated the folly of those authorities which forcibly medicate the population with vitamin B9 (folic acid or folate).

They require bakeries and breakfast cereal makers (amongst others) to 'fortify' their products with folate.

Ostensibly this is to reduce the incidence of some rare birth defects. However, the cure is far worse than the disease.

Overdosing on folic acid has been linked to asthma, allergies, leukemia, colon cancer, arthritis, and obesity. See:

Overdosing on Folic Acid, [Jan 2009](#) [16].
Folic Acid Jekyll and Hyde, [Feb 2008](#) [17]

Supplements and Epigenetics: [July 2006](#) [18].

Now another study adds AUTISM to the list [19]. Those women who had four times the 'adequate' level of folate DOUBLED the risk of autism.

Vitamin B12: The researchers also found that overdose levels of B12 TRIPLE the risk of autism.

Vitamin B12 PLUS Vitamin B9 Many pregnant women had excesses of BOTH B vitamins. Their offspring would have SEVENTEEN TIMES the risk of autism!

My View? These women had all been taking supplements – plus stoking up on artificially 'fortified' cereal products. As always, the answer is to get these nutrients as they NATURALLY OCCUR in food.

It is not hard: folate is plentiful in leafy green plants ('foliage'). Vitamin B12 is in a huge variety of seafood, conforming poultry, conforming meats, and eggs.

Folate Fortification Failure

Meanwhile, other research finds that folate fortification is not even producing the desired benefit in reducing birth defects [20].

In the 20 years since fortification, NO DISCERNIBLE REDUCTION in birth defects has been detected.

Calcium Pills Damage Heart

Some 43% of Americans take supplements that include calcium.

Over a period of 10 years, those who took supplements (of some 1400 mg per day) had a 22% increase in heart calcification compared to those who did not supplement [21].

Say the researchers: "calcium supplements... don't make it to the skeleton... so they accumulate in the body's soft tissues."

Moreover, people who ate a diet which NATURALLY CONTAINED 1400 mg calcium per day, DID NOT suffer calcification.

Say the researchers: "There is something different in how the body uses and responds to supplements (compared to food) that make them riskier."

My View? We cannot second-guess the intricate workings of our biochemistry. But we don't need to! Just eat like nature intended and the body sorts these things out just fine.

See: **Calcium Tablets: Heart Attacks, Sept 2012** [22].

Prostate Drug/Dementia Link

Prostate cancer patients treated with testosterone-lowering drugs are twice as likely to develop dementia within five years as those whose testosterone levels are not tampered with [23].

In fact, it didn't matter what kind of treatment men received, or even if they had no treatment at all. 99% of men survived more than five years anyway..

Say the researchers: "These startling results suggest that it is better to actively monitor prostate cancer than to do early radical treatment."

My View? It's an important lesson: taking medicine is an exercise in trade-offs. "There is no effect without side effect."

Better still, live like we say and avoid getting sick in the first place!

News Flashes

Minimalist Shoes Boost Leg & Foot Muscles



'Minimal' running shoes: "Have an open-topped upper made of stretchy fabric, five separate toe compartments, zero heel-to-toe drop, no mid-sole cushioning or arch support, and a uniform 3-mm outer sole."

In a study, participants who wore these shoes were compared with those who wore traditional running shoes – "Foot Coffins" as fitness coach, [George Anderson](#) [24], calls them! [See my YouTube interview with George: <http://bit.ly/2hwecBZ>]

The study found that runners who converted to the minimalist shoes, sharply increased leg and foot muscle volume, and beefed up the foot and toe joints [25].

The researchers opine that, rather than treat foot problems with 'orthotic devices', patients could have their foot function rehabilitated by wearing minimalist shoes.

My View? The closer we can align ourselves with our natural heritage, the better. Some people use these shoes not for running but for ordinary daily street wear. See: **Barefoot Running, Feb 2012** [26]. **'Primitive Running' Beats Injury, Nov 2012** [27]. **Barefoot as Nature Intended, Jan 2016** [28].

And my demo on YouTube: <http://bit.ly/Geoff-barefoot>

Walk Faster, Sit Less

A University of Massachusetts study suggests that even if you cannot make the levels of Hadza physical activity (see **We're Born for Heavy Breathing**, p1.), then just upping the intensity levels can help a lot [29] - for example by increasing walking speed to 100 steps per minute (the marching speed of Roman legions and modern infantry).

With regard to aerobic activity, this should be accumulated in bouts of at least 10 minutes each.

The researchers envision a future in which wearable fitness trackers will feature apps that make minute-by-minute data available to the user.

My View? It is a regrettable fact that modern life traps us into sedentary behaviors without us realizing just by how much.

For me, fitness monitors do work! I have now worn one continuously for over 18 months. Even though I used to include an hour of physical activity every day, the device still uncovered major deficiencies in my activity patterns. It also chides me if I have been sitting for too long.

Tip: download an app to your computer to remind you to get up and walk around at regular intervals. I set mine to ping me every 35 minutes. (That's 5 minutes to do some stretches and briskly walk 50 yards.) It has pinged me many times just as I write this Briefing!

See: **More on Excess Sitting, April 2015** [30].

10,000 Steps a Day? July 2014 [31]

How the Heart turns into Bone



Arrowed – bone cell calcification

We have known for quite a while that heart muscles can 'calcify' – that is, accumulate calcium deposits.

Now a study throws more light on another mechanism: heart muscle cells that change function and turn into bone-building cells – none other than osteoblasts! [32].

The research found that these turn-coat cells are ones that start off as 'fibroblasts' and make scar tissue after injury.

People with diabetes and kidney disease are most vulnerable to this process.

My View? Of course this is a maladaptive reaction by the fibroblasts. The only remedy is to stay healthy – and avoid injuring your heart muscles with a dysfunctional biochemistry. See: **Calcium Pills Damage Heart**, page 3

Continued from Page 1

We're Born for Heavy Breathing



Sure, say the researchers, diet also has a lot to do with the Hadza's remarkable cardiovascular health too.

My View? These studies use the latest powerful wearable devices for tracking activity, heart rate and so forth. Their findings are much more accurate than previous estimates> They used to be done by following foragers around and plotting their movements on a primitive map – as I did in the 1960s.

See: **Walk Faster, Sit Less**, p 3

Continued from Page 1

Our living Gut - part VI

...it transmits the pain via bundles of nerves that are connected to the bladder area including the prostate.

The upshot is that if you eat spicy food like curry, pepperoni pizza, or chili con carne, then you are likely to feel the pain in the bladder and surroundings. Most sufferers are women, who find cystitis symptoms much aggravated and sometimes have to urinate up to 50 times a day.

In *Deadly Harvest*, I point out the harm that strongly spicy foods do to the colon directly; now we find that they also cause mischief at a distance.

Next Month: Diversity of Gut Flora prevents Allergies

Spreading the Word

Lecture Tour: California, January 16th, 2017 to March 10th 2017. Mostly private talks except where announced.

Public Talk - Advance Notice
Palm Springs Library, CA
March 07 2017.

How to Grow Older without Feeling Old: Insights from our ancient origins

Public Talk - Advance Notice

Green Templeton College
Oxford University
March 22, 2017

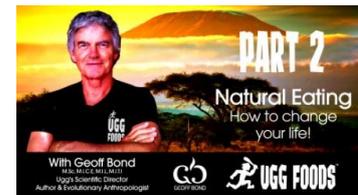
Successful ageing: How to restore, rejuvenate and maintain normal functionality in advancing years.

Public Talk - Advance Notice

Paleo Society, Oxfordshire
Date: TBA [end March]
Title: TBA

Video

for www.Uggfoods.com :



Remastered by Georgiades Productions. **All About Paleo - Part II.**
<https://youtu.be/UsgWbvHEgOk>



Deadly Harvest: Geoff's latest work encapsulates current thinking on lifestyle anthropology. www.deadlyharvest.com



Paleo Harvest Cookbook: Over 170 delicious, Bond Precept conforming recipes www.paleo-harvest.com

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