



The science & art of living the way nature intended

The Bond Briefing

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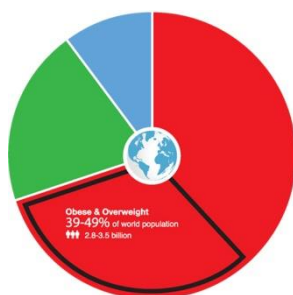


RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

Health Policy: Most of the World's People are 'Overfat'; Healthy Urban Living Reconnects with Nature. **Ancestral Health:** Our Living Gut – Part VIII. **From the Journals:** Interval Training Slows Cell Ageing; Sitting Ages Cell Telomeres. **Human Ancestry:** Inuit Genetic Adaptation. **Human Psyche:** Playfulness Releases Stress. **Quote:** Fast Food Deadlier than the Crazy Zealot. **Spreading the Word.** Our 104-year-old still Going Strong. **Events:** Paleo Society Meeting, March 28th 2017.

Health Policy

Most of the World's People are "Overfat"



Red:	"Overfat"	69%
Green:	"Normal" Fat	21%
Blue:	"Underfat"	10%

Researchers find that current data suggest that an average of 69% of the world's population is "overfat" [1]. This amounts to an astonishing 5.5 billion people including adults and children.

What do the researchers mean by 'overfat'? Ha! This is a new term the researchers have coined. > p 3

Obesity Overlooked in Medical Training

According to a study by Dr Robert Kushner of Northwestern University, Illinois, USA, the licensing exams for graduating medical students have a surprisingly limited number of test items about obesity prevention and treatment [2].

Of the few exam items related to obesity, the majority pertained to assessment and management of obesity-related illnesses such as diabetes and obstructive sleep disorder rather than addressing the diagnosis and management of obesity itself. **My View?** > p 4

Health Policy

Healthy Urban Living: Reconnect with Nature



University of Washington researcher Peter Kahn discusses the growing tension between the necessary role that urban areas play in society and the numbing, even debilitating, aspects of cities that disconnect humans from the natural world [3].

Because of light pollution, "Kids in large cities are growing up having never seen the stars. Can you imagine that -- having never in your life walked under the vastness of the star-lit sky, and there's that feeling of awe, restoration and imaginative spark?" said Kahn.

"As we build bigger cities, we're not aware how much and how fast we're undermining our connection to nature, and more wild nature -- the wellspring of our existence."

Mental illnesses and mood disorders are more common in urban areas, and "There's an enormous amount of disease largely tied to our removal from the natural environment,"

City dwellers in increasingly dense urban areas may have little or no contact with the natural world in their daily lives. That void is producing "environmental generational amnesia," a term Kahn coined. > p 3

Ancestral Health

Our living Gut - part VIII

[Last month](#) [4] we saw how gut dysbiosis is a factor in Allergies. We continue:

Happiness Connection

Brain levels of serotonin, the 'happy hormone' in mice are regulated by the amount of bacteria in the gut during early life. [5] So finds Professor John Cryan of University College Cork, Ireland. His research shows that normal adult brain function depends on the presence of gut microbes during development. Serotonin, is the major chemical involved in the regulation of mood and emotion. The absence of bacteria during early life significantly affected serotonin concentrations in the brain in adulthood. The effect is more marked in males compared with females. Moreover, the effect could not be reversed, indicating a permanent imprinting on brain function. The researchers opine that the use of antibiotics in babyhood could affect permanently the ability to feel happy in adulthood.

Sloth and anxiety connection

Professor Rochellys Diaz Heijtz of Karolinska Institutet, Sweden finds that gut microbes acquired early in life can impact brain development in mice and subsequent behavior, such as decreasing physical activity and increasing anxiety. [6]

Autism, anxiety, and neurotic behaviors

Professor of Microbiology, Sarkis Mazmanian explores the link between gut bacteria and mental disorders. He discovered that our gut bugs talk to the brain via powerful molecules that > p 4

From the Journals

Interval Training Slows Cell Ageing

Researchers have long suspected that the benefits of exercise extend down to the cellular level. Somehow it helps cells rebuild their mitochondria which deteriorate with age. Mitochondria are the cell's power-plant

A study now finds that high-intensity interval training in aerobic exercises -- such as biking and walking -- caused cells to make more proteins for their mitochondria, and also for their protein-building machinery called ribosomes. Between them they stopping ageing at the cellular level [7].

The 'young' volunteers (18-30 years old) saw a 49% improvement in mitochondrial capacity.

The 'old' volunteers (65-80 years old) saw a massive 69% increase.

Typically interval training involves doing the physical activity at close to maximum capacity for as long as possible – perhaps up to 30 seconds or so – and then recovering at a slower pace for a few more minutes – and then repeating the process for several more cycles.

The researchers add that it is good to do this say 4 times a week and then a couple of days of strength training.

My View? Interval training perhaps emulates the actions of a hunter after his quarry.

But here we seem to have a biological oddity that we can use to our advantage.

Sitting Ages Cell Telomeres

Elderly women who sit for more than 10 hours a day with low physical activity (less than 30 minutes a day) have cell telomeres that are biologically older by **EIGHT YEARS** compared to women who are less sedentary [8].

Telomeres cap the ends of chromosomes and the faster they wear out, the quicker you die.

See: **Telomeres and Antiageing**, [March 2010](#) [9], **More Children, Slower Ageing**, [Feb 2016](#) [10], **Longer Life**

(on Mediterranean Diet) [Dec 2014](#) [11]

My View? As we saw in **We're Born for Heavy Breathing**, [Nov 2016](#) [12], foragers remain vigorously active until the last days of their life. That is how we should try to be too.

Human Ancestry

Inuit Genetic Adaptations



Eskimo family 1896

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

Whilst we are all still the same Savanna Model creatures under the surface, some genetic tweaking occurred as we humans overflowed out of Africa and spread around the world.

Such is the case for the Inuit of Greenland. An interesting study on their genetic make-up finds some adaptations for their extraordinary lifestyle [13]

They live in the extreme conditions of the Arctic including freezing temperatures and a diet high in protein and in omega-3 fish-oils.

The study found that several genes were modified to cope with the protein overload and to balance out the production of various omega-3 and omega-6 fatty acids.

These genes had the side effect of suppressing height and increasing stockiness. These genes are also present in a weaker form throughout Europe, Asia and the Americas. However they are totally absent in Africans.

Interestingly, the researchers found that these particular modified genes were also present in Neanderthals and their cousins, the Denisovans.

The Denisovans are only known from a finger-bone, a tooth, and other fragments first found in a Siberian cave. However, their genome has been well analysed and they seem to be a species

intermediate between Neanderthals and Humans.

This reinforces the hypothesis that some ancient interbreeding conferred unique adaptive traits to non-African humans.

My View? The Inuit only arrived in the Arctic 5,000 years ago, but they had probably spent a few millennia in Siberia before that.

So, since the Neanderthals and Denisovans died out some 35,000 years ago, the Inuit probably got these genes from the Eurasian humans who replaced the Neanderthals.

See: **Neanderthal Genes in us?** [May 2010](#) [14]. **No Human-Neanderthal Interbreeding after all?** [Sept 2012](#) [15]. **Neanderthal-Human Sex Rarely Produced kids** [April 2012](#) [16].

Human Psyche

Playfulness Releases Stress

Forager children: "...are also advanced in cognitive development thanks to the high intensity of social contact and stimulating play opportunities."

So I wrote in **Childhood, Deadly Harvest**, [Chapter 8](#), [18] p. 218.

But what about playfulness in adults? Dr René Proyer of Martin Luther University, Halle-Wittenberg, Germany, says playful people experience more creativeness, entertainment and stress release. He identifies four types of adult playfulness:

Other-directed – fooling around with friends and acquaintances.

Light-hearted - seeing life as a game.

Intellectual – playing with thoughts and ideas.

Whimsical - interest in the strange and unusual.

But, says Dr Proyer ruefully, in the German-speaking world, playful people are not taken seriously, or are seen as unreliable – unjustly so.

My View? In our Paleo Society Meeting, March 28, 2017 (page 4), Darryl Edwards – who specializes in 'Primal Play' [17] – got the audience to fool around with each other to scenes of much merriment.

It was at once invigorating, ice-breaking and relaxing. And adult foragers? Yes, they are given to playfulness but more especially they use the drumbeat of all-night dancing to go into a hypnotic trance and “enter a state of transcendence and oneness with the universe”. See: **Myths & Rituals, Deadly Harvest**, [Ch 8](#), [18] p. 220

Unhealthy Hospital Workers

Meanwhile, researchers at the University of Texas find that 78% of hospital workers in Houston are either overweight or obese.

Obese participants (BMI above 29) had higher consumption of potatoes, fats, sugary beverages, and spent more time watching television, playing computer games, and sitting than those of normal weight.

They had poor results for blood pressure, blood glucose, low-density lipoprotein (LDL), and high-density lipoprotein (HDL).

The researchers suggest that hospital workers suffer from the ‘nurturer effect’ – that is, carers of others take less care of themselves. They suggest that the vending machines only supply healthy products and that more walking paths be provided.

My View? “The cobbler’s children are the worst shod!” It is ironic that good role-models of healthy living are least likely to be found where they are needed most – in hospitals. See: **Most World’s People are “Overfat”**, page 1

Quote

Fast Food Deadlier than the Crazy Zealot

“McDonald’s and Coca-Cola are a greater threat to your life than al-Qaeda and ISIS – in fact 1,000 times greater” [19] *Yuval Noah Harari*.

My View? This is a nice sound-bite and should make people sit up and rethink their priorities. Even so the human behaviorist in me can see an objection.

With bad food, **WE** make the life-or-death decision; but with crazed terrorists, **THEY** decide whether we live or die.

This is a total contrast of who is in control – and that makes all the difference in how we feel with statistics like this.

Spreading the Word

Our 104-year-old still Going Strong



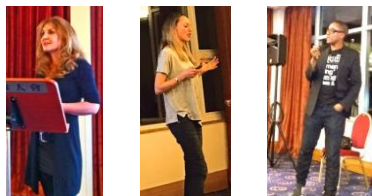
Enlarge: <http://bit.ly/2mTCoBC>

On my recent speaking tour in California, we were delighted to catch up with our long-time supporter, Edith Morrey, who will be 105-years-old in May. She is still fully functioning and living independently in her own home in Rancho Mirage.

EVENTS: <http://bit.ly/bond-event>
Talks to private organizations

Paleo Society Meeting March 28

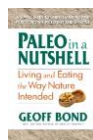
We had a good audience and I gave a well received keynote talk. We had a good line-up of other presenters: details below:



Click photos to enlarge

From Left: **Kim Lloyd**, PalSoc Founder [20]; **Jo Harding**, Paleo-Crust blogger [21]; **Darryl Edwards**, Primal Coach [22]

NEW BOOK: Paleo in a Nutshell



Square One Publishers of New York plan to publish my new book, in early April.

<http://bit.ly/Paleo-nutshell-cover>

Continued from Page 1

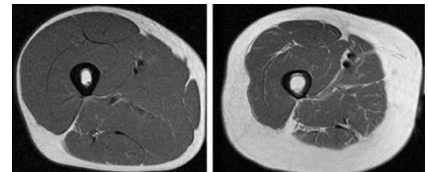
Most of the World’s People are “Overfat”

>> ... It is an attempt to measure not only obesity and overweight as defined by such common (but unreliable) measures such as BMI

but also to include people of normal weight but who have unhealthy fat deposits around internal organs (for example).

I wrote about this in: **Slim People Might Not Be as Healthy as They Appear**, [Dec 2006](#) [23].

Another, large category of overfats are older people, most of whose muscles are turning to fat – a condition known as ‘sarcopenia’.



Enlarge: <http://bit.ly/2ojn419>

Left: Section through a young man’s thigh. It has a thin coat of fat to the outside.

Right: An old man’s thigh. It has the same dimensions as the young one, but the fat coating is much thicker, and the scanty muscle is marbled with more fat.

The researchers go on to say that fat deposits in general operate as an ‘endocrine organ’. That is, like a gland pumping out hormones into the blood stream and lymphatic system.

In a state of nature, these hormones are performing vital roles in the body’s biochemistry. However, excess fat deposits cause ‘endocrine dysfunction’ and low-grade chronic inflammation [24]. In turn, such inflammation is a factor in various downstream diseases, including type 2 diabetes (25), heart disease (26), cancer (27), stroke (28), Alzheimer’s (29), and others (30). These health epidemics are currently having devastating effects on the world economy.

Continued from Page 1

Healthy Urban Living: Reconnect with Nature

... to describe how each generation creates a new idea of what’s environmentally normal based on experiences in childhood.

"There's nothing natural about a megacity."

There are steps cities can take to introduce nature into the urban core, including requiring buildings to

have windows that open to allow in fresh air and natural light; incorporating more rooftop gardens and urban agriculture; and creating spaces within and around buildings to touch, see and smell native plants.

But these remedies first require an appreciation for nature in urban centers, as well as the space, resources and collective will to make these changes.

Kahn argues that it's more than just introducing nature into urban areas. People must be able to interact with these elements using more of their senses in order to experience physical and psychological benefits of nature.

My View? I have written regularly that our savanna-bred psyches

NEED natural surroundings for mental and physical well-being. See: **Green Spaces Lower Anxiety and Depression**, [May 2010](#) [31]; **Landscape for Mood**, [Oct 2006](#) [32]; **Greenery Reduces Kids' Obesity**, [Nov 2008](#) [33]; **Nature Calms ADHD**, [July 2005](#) [34].

Continued from Page 1

Obesity Overlooked in Medical Training

... **My View?** Heaven knows, doctors already have a mind-boggling volume of knowledge to absorb. Yet somehow, they have to reprioritize what they learn to include the major lifestyle diseases and the lifestyle factors, like nutrition, that cause them.

Continued from Page 1

Our living Gut - part VIII

... they pump into the bloodstream - and the wrong ones can induce autism, anxiety, and neurotic behaviors [35].

Stressed Mum-Baby connection

More worryingly Mazmanian's findings indicate that gut bugs are sensitive to stress, and a stressed mom passes on her faulty gut bugs to her baby. The newborn's brain then gets programmed by the bad bugs - something that will last the child's lifetime. This is a similar phenomenon to the lifelong imprinting we talked of in the *'Happiness Connection'* earlier. **Next Month: Cognitive Flexibility & Toddler temper and gut**



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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