



## The Bond Effect The Bond Effect The Bond Effect

The Science and Art of Living the Way Nature Intended

# The Bond Briefing

Private Subscription Monthly Newsletter – Annually: Hard Copy \$59.00 - Electronic \$18.00

[www.TheBondEffect.com](http://www.TheBondEffect.com)



Rational, evidence-based comment for an intelligent general public and for all health professionals. Independent of commercial pressure, we say exactly what we think.

**Our Genetic Heritage:** Neanderthal Genes in Us? **Evolutionary Human Behavior:** Low female Waist-Hip Ratio Best. **Hints & Tips:** Soccer for Health & Wellbeing. **Did You Know?** Good Health in Extreme Old Age. **Recipe:** Spicy Moroccan Chicken. **Questions:** Green Bean Safety. **Health Policy:** Green Spaces lower Anxiety and Depression. **Sunshine is Human Food:** Our SWAT Team Killer Cells; Sunlight Lowers Kidney Cancer; Sunshine Deficiency is Linked to Rheumatoid Arthritis, Asthma, Brain Atrophy. **Did You Know?** Fat Cell Numbers. **Evolutionary Psychology:** How Chimps Deal With Death. **Letters:** How I Got My Husband on Board. **Did You Know?** Jaws Change with Age. **It's not all Bad:** Shop Light Boosts Veg Nutrients.

### Our Genetic Heritage

#### Neanderthal Genes in Us?

**Q.** In *Deadly Harvest*, page 7 you say that: "the Neanderthals are not our ancestors at all." How do you square this with the recent press headlines: "Most People Carry Neanderthal Genes"?

**A.** No one questions scientifically that we share a common ancestor with the Neanderthals, that they migrated out of Africa in a wave some half million years ago, and that our species migrated out much more recently, some 70 to 80,000 years ago where they first encountered the Neanderthals in the Palestine area.

I have been skeptical of the view that humans bred with Neanderthals on two scores: a) it would be akin to mating with a gorilla, b) two species, however close, have difficulty fertilizing each other.

Nevertheless, hot-blooded males will mate indiscriminately with anyone, including animals. So, just supposing a human raiding party captured a Neanderthal female: would they rape her? Probably. The question is: does anything come of it?

The study of Neanderthal DNA is fraught with difficulty. Because it is 40,000 years old, it is incomplete, fragmented, degraded, chemically modified, infiltrated with up to 95% bacterial DNA, and contaminated with the researchers' own DNA.

This is where the latest study by Dr Richard Green and colleagues is most interesting [1].

Continued p. 4.

### Evolutionary Human Behavior

#### Low Female Waist-to-Hip Best



Before



After

'Tulip figure, so appealing...' warbles John Betjeman in his poem *Youth and Age on Beaulieu River, Hants*. But there are deep evolutionary reasons why men prefer an hour-glass figure: it signals female fertility. ('*Barbie Shaped Women*' June 2004 [2])

Plastic surgeons find they can dupe the evolutionary signal. Intriguingly, they do it without reducing the total fat in the woman. In the photos above they have simply liposuctioned fat from the waist and put it into the hips and buttocks.

Dr Devendra Singh and co-workers at University of Texas find that Africans, Polynesians, Caucasians and Asians all prefer the lower waist-to-hip ratio [3].

And blind men? **Go to page 4**

### Hints & Tips

#### Soccer for Health & Wellbeing



Soccer is just as good as running for persons from 9 to 77 years according to a University of Copenhagen study [4].

In particular women continued playing when they would otherwise have given up on running. They enjoyed the 'we-stories' and the conviviality of joining a club and being part of a team.

### Did You Know?

#### Good Health in Extreme Old Age

"There is one, and only one, cause of death at older ages. And that is old age." So said eminent gerontologist professor Leonard Hayflick.

The oldest old have very low rates of death for cancer, heart disease and stroke. Only 4% of centenarians die of cancer compared to 40% of people in their 50's and sixties.

So what do they die of? "Total systems failure" says Dr Craig Wilcox of the Okinawa Centenarian Study, Japan. Compared to westerners, the islanders age slowly and on average they spend 97% of their lives free of any disabilities.

See also 'Japanese Longevity and Health', *Deadly Harvest* p. 92 [5]

## Recipes

A colorful dish full of exotic flavors. Serve with simply cooked vegetables, such as green beans and Brussels sprouts.

### Spicy Moroccan Chicken

Yield: 4 servings

2 chili peppers, de-seeded and finely chopped  
 3 medium cloves garlic, crushed  
 3 tablespoons freshly squeezed lemon juice, or to taste  
 2 teaspoons ground cumin  
 2 teaspoons ground cinnamon  
 3 tablespoons olive oil  
 4 tablespoons raisins  
 4 tablespoons pine nuts  
 1/2 teaspoon salt, or to taste  
 4 tablespoons finely chopped fresh mint  
 2-3 skinless chicken breast (about 20 ounces), cut into 1-inch strips

1. Mix the chili pepper, garlic, lemon juice, cumin, cinnamon and olive oil in a medium size bowl. Add the raisins and pine nuts. Season sparingly with salt. Add 3 tablespoons of the chopped mint to the mixture.
2. Add the chicken and stir well. Cover the dish and place in the fridge for 1/2 hour.
3. Heat a large nonstick frying pan to high heat. Add the chicken with its mixture and sauté on both sides until brown.
4. Reduce heat, cover and simmer in the mixture on low heat until the chicken is fully cooked (about 5 minutes).
5. Prior to serving, mix in the remaining tablespoon of mint.

For more recipes check out

### Healthy Harvest

by **Nicole Bond**

ISBN: 978-0-9712-8526-2

Order from our shopping cart on [www.naturaleater.com](http://www.naturaleater.com).



## Questions

### Green Beans Safety

**Q.** If dried beans and legumes are a problem with their plant poisons, what about green beans?

**A.** Green beans are the immature form of bean and we are mainly eating the pod.

It does indeed contain anti-nutrients like trypsin inhibitors, lectins, and alkaloids, but at much lower levels than dried beans.

I know of no study on green beans – a remarkable lacuna - but we do know that cooking reduces the antinutrients in dried beans [6]. So it should work for green beans too.

Until we have further information, we can suppose that cooked green beans are pretty safe.

## Health Policy

### Green Spaces Lower Anxiety and Depression



People living near gardens, parks and other green spaces have lower rates of anxiety and depression, and they have better physical health than those living in urban areas, two Dutch studies find [7] [8].

The researchers also found fewer cases of heart disease, back pain and asthma.

"Expanding green spaces may help prevent chronic illnesses that cost billions of dollars to treat each year", they said.

**My View?** The evidence is piling up: people who live in cities risk suffering deficiency diseases due to alienation from nature. (See Nov 2008 [9], Oct 2006 [10], Jul 2005 [11]).

But the point is well made: cutting back on parks is false economy when it increases cost and misery

of poor health. How to connect the two? Not easy – see next article.

### The Best Health Plan is ... Not to Get Sick in the First Place!

Lead, a toxic heavy metal, has poisoned millions of Americans. Mostly the doses exert silent and largely undetectable disabilities – a permanent drop in IQ or raised blood pressure.

"For every dollar spent in prevention of lead exposure, we will save anywhere from \$17 to more than \$120," Bruce Lanphear of Simon Fraser University in British Columbia says.

And that's just one toxic pollutant. There's also mercury, smog, ozone, and airborne particulates; there's pesticides and toxic chemicals thrown into waterways; there's hormone-mimicking pollutants that leach into foods and water, and more.

The problem, of course, is that pollution-triggered health risks and their costs are diffuse, and all-but-impossible to trace. That's the bugbear: cause and consequence are disconnected.

**My View?** That should be the focus of health care reform – stop doing things that create the need for therapy in the first place.

## Sunshine is Human Food

### Our SWAT Team Killer Cells

The sunshine vitamin is essential to wake up dormant T-cells and arm them for battle against mischief-makers [12]. Without it our immune system's SWAT team is disarmed and ineffective.

### Sunlight Lowers Kidney Cancer

In a study examining kidney cancer, men employed in jobs with exposure to high levels of sunlight have a reduced risk of kidney cancer compared with men who were less exposed to sunlight at work [13].

### Sunshine Deficiency is Linked to:

Rheumatoid arthritis [14]  
 Asthma [15]  
 Brain Atrophy [16]

## Unintended Consequences

### Folic Acid/Breast Cancer

Over the years I have written regularly about the downside of

supplementing with folic acid. The last time was Dec 2009 [17]: folic acid supplements raise risk of asthma and lung cancer.

Now Dr Ulrika Ericson of Lund University, Sweden finds that women with a certain genetic makeup can add breast cancer to the list [18]. Says Ulrika: "No one knows which genetic variant they have... mandatory folic acid fortification of foodstuffs is not appropriate..."

We agree with Ulrika's conclusion: that we should all get our folic acid from eating plant food. That way the body works out the right intake just fine.

**Did you Know?**

**Fat Cell Numbers**

Some obese people excuse their condition by claiming they have more fat cells than other people.

Actually the story is rather different. The normal condition for ANY adult human being is to have the same number of fat cells independently of body-type [19]. These cells expand or contract according to how much fat needs to be stored.

The number of fat cells is set by the age of 20. People who got fat during childhood have more fat cells than those who remained skinny. They will find it more difficult to lose weight later in life.



Like other cells, fat cells live and die: 10% of them are replaced each year. But the body controls the precise number very carefully at the same level.

**Moral?** Bring up your kids to be lean if you want them to have a good start in life. After that there are no alibis.

**Colas Accelerate Ageing**

High phosphate consumption hastens premature ageing [20]. Symptoms include: hunchback, uncoordinated movement, wasted sex organs, infertility, severe

muscle wasting, emphysema, and osteoporosis, as well as atrophy of the skin, intestine, thymus, and spleen.

What is the most common source of phosphate? Cola soft drinks.

See also 'Colas Cause Potassium Deficiency' Oct 2009 [21].

**Evolutionary Psychology**

**How Chimps Deal With Death**

"A beast, that wants discourse of reason, would have mourn'd longer."

So wailed Hamlet about his mother who remarried "too soon" after the death of his father.

But do beasts really have feelings such as mourning? Researchers observed a chimpanzee colony in the wild after the deaths of two infants from flu [22].

For weeks, the mothers continued to carry the corpses which mummified completely.



They even groomed them, and took them into their nests. Gradually they 'let go' of their infants.

Actually mourning has been observed in all kinds of mammals from elephants to dairy cows. The researchers opined that, even though these creatures don't have religion or notions of the here-after, they clearly feel bad about death.

So what is going on? Quite simply, it's the genes manipulating them, using the tools they designed for the job: emotions. Any species where the young require close care through their youth, and where maturation is slow, requires mothers that worry about their offspring's survival.

So the genes make the mother feel bad about her child's death with the very purpose of spurring her into preventing it if at all possible. Sometimes, as in the case above, she fails.

In contrast, we can predict that creatures like crocodiles and salmon, which just lay eggs and then go away, have no feelings about death of offspring.

**Letters**

**How I Got my Husband On Board**

"I downloaded the first book, 'Natural Eating' and read it in record time. Before I was finished I bought 'Deadly Harvest' [23].

"I told my husband about these wonderful books but he is not easily convinced of anything. So every day, as we drove to work, I would read a little to him from "Deadly Harvest". He was hooked in two days.

"We have both lost weight and continue to do so. We were already eating a lot of fruits and vegetables, but never knew of the health dangers from eating grains, dairy and legumes. We have now become purists.

"I tell everyone I know about your books and you would not believe how many people are interested. My cousin ordered "Deadly Harvest" for herself. When a friend started to read it she begged my cousin to let her take it home. She has now ordered another copy for herself and four more copies for each of her children." – Samia Arroyo, USA

**Did You Know?**

**Jaws Change with Age**



Young Female



Old Female

Our bones are constantly being remodeled and it is no wonder that their shape drifts over time.



So it is with our jawbones. Plastic surgeons find that it is not enough to correct sagging soft tissue: they need to correct the jaw-line too.

Dr. Robert Shaw and colleagues have documented how, for both sexes, the angle of the jaw (yellow jaw-lines above) opens out with age [24].

Says Shaw: "The future of facial cosmetic procedures is to rebuild the structure [jaw] in addition to lifting and reducing excess skin."

From Page 1  
**Our Genetic Heritage**

### Neanderthal Genes in Us?

Using the most sophisticated techniques: patching, mending, compensating, comparing, substituting, they believe they have produced the most authentic draft of the Neanderthal gene-set yet. But, warns Green: "The draft Neanderthal DNA sequence is probably riddled with errors."

Even so, if we take his results at face value, modern Europeans and Asians (but not Africans) have between 1% and 4% of

Neanderthal genes resulting from just a few, rare, matings back in Palestine 80,000 years ago.

Green says that the effect on us of Neanderthal genes is probably zero: "The signal is sparsely distributed across the genome, just a 'bread crumbs' clue of what happened in the past."

How does this affect what I talk about? Not at all – but it is a fascinating insight into human history – and there's surely more to come!

From Page 1  
**Evolutionary Human Behavior**

### Low Female Waist-Hip Best

Dr Singh observes that preferred waist-hip ratio (waist measurement divided by the hip measurement) varies slightly across cultures from 0.6 in the Hadza hunter-gatherers of Tanzania to 0.8 in the Bakossi people of Cameroon. The average of most cultures is 0.7.

He also observes that ancient sculptures from Greece, Rome, Egypt, Japan, India, and stone-age cultures all have waist-hip

ratios averaging 0.65 to 0.7 and never more than 0.8.

Even so, there remains a lingering argument that media hype is forcing women to worry about their waistlines. To dispel this, Dr Johan Karremans, Radboud University, Netherlands, decided to test men who are blind from birth.

He found that blind men also preferred low waist-hip ratios which they detected just by feel (of a tailor's dummy) [25].

Karremans concludes that male preference for tulip figures is a deeply programmed response that goes beyond visual clues and exposure to visual media.

**It's Not All Bad**

### Shop Light Boosts Veg Nutrients

Spinach stored in supermarket fluorescent lighting for as little as three days had raised levels of vitamins C, K, E, lutein, zeaxanthin, and folate [26].

After nine days continuous light, folate increased 84% and vitamin K by 75%.

**SUBSCRIBE TO THIS BRIEFING!**

email: [admin@Naturaleater.com](mailto:admin@Naturaleater.com)

Cancer Site: [www.BeatCancerNaturally.com](http://www.BeatCancerNaturally.com)

Tel: +357 99 45 24 68 Skype: gvlbond

Twitter: [www.twitter.com/savvyeater](http://www.twitter.com/savvyeater)

Facebook (Geoff): [www.facebook.com/naturaleater](http://www.facebook.com/naturaleater)

Facebook (Group): <http://tinyurl.com/Bond-FB-Group>

LinkedIn: <http://cy.linkedin.com/in/naturaleater>

1 Science 7 May 2010: A Draft Sequence of the Neandertal Genome; Vol. 328, no. 5979, pp. 710 - 722; Richard E. Green et al; DOI: 10.1126/science.1188021.

Full online article: <http://bit.ly/asi5M4>

2 <http://www.naturaleater.com/newsletter-archive/NEWS-2006/NEWS-2006-10.pdf>

3 Evolution & Human Behavior; 31 (2010) 176-181, Cross-cultural consensus for waist-hip ratio and women's attractiveness; Singh D et al

4 Scand J Med Sci Sports. 2010 Mar 4. Executive summary: The health and fitness benefits of regular participation in small-sided football games. Krusturup P.

5 <http://tinyurl.com/Deadly-Harvest-4>

6 Arch Invest Med (Mex). 1978;9(1):1-14. Trypsin inhibitors and hemagglutinins in certain edible leguminosae. Sotelo-López A et al.

7 J Epidemiol Community Health. 2009 Dec;63(12):967-73. Morbidity is related to a green living environment. Maas J et al.

8 Soc Sci Med. 2010 Apr;70(8):1203-10. Green space as a buffer between stressful life events and health. van den Berg et al.

9 <http://www.naturaleater.com/newsletter-archive/NEWS-2008/NEWS-2008-11.pdf>

10 <http://www.naturaleater.com/newsletter-archive/NEWS-2006/NEWS-2006-10.pdf>

11 <http://www.naturaleater.com/newsletter-archive/NEWS-2005/NEWS-2005-07.pdf>

12 von Essen et al. Vitamin D controls T cell antigen receptor signaling and activation of human T cells. Nature Immunology, 2010.

13 Sara Karami et al. Occupational sunlight exposure and risk of renal cell carcinoma. Cancer, Published Online: March 8, 2010 DOI: 10.1002/cncr.24939

14 Vieira et al. Association between Residences in U.S. Northern Latitudes and Rheumatoid Arthritis: A Spatial Analysis of the Nurses' Health Study. Environmental Health Perspectives, 2010

15 Searing et al. Decreased serum vitamin D levels in children with asthma are associated with increased corticosteroid use. The Journal of Allergy and Clinical Immunology, 2010.

16 Weinstock-Guttman, American Academy of Neurology meeting April 2010.

17 <http://www.naturaleater.com/newsletter-archive/NEWS-2009/NEWS-2009-12.pdf>

18 ScienceDaily; article 100407123342

19 Nature. 2008 Jun 5;453(7196):783-7. Epub 2008 May 4. Dynamics of fat cell turnover in humans. Spalding KL et al.

20 FASEB Journal. 2010 Apr 23. Dietary and genetic evidence for phosphate toxicity accelerating mammalian aging. Ohnishi M et al.

21 <http://www.naturaleater.com/newsletter-archive/NEWS-2009/NEWS-2009-10.pdf>

22 Dora Biro, et al. Chimpanzee mothers at Bossou, Guinea carry the mummified remains of their dead infants. Current Biology, 2010; 20 (8): R351-R352

23 [www.deadlyharvest.com](http://www.deadlyharvest.com)

24 Plast Reconstr Surg. 2010 Jan;125(1):332-42. Aging of the mandible and its aesthetic implications. Shaw RB Jr et al.

25 Evolution & Human Behavior; 31 (2010) 182-186, Blind Men Prefer a Low Waist-to-Hip Ratio. Karremans J C et al.

26 Gene E. Lester, Donald J. Makus, D. Mark Hodges. Relationship between Fresh-Packaged Spinach Leaves Exposed to Continuous Light or Dark and Bioactive Contents: Effects of Cultivar, Leaf Size, and Storage Duration. Journal of Agricultural and Food Chemistry.