



## The Bond Effect The Bond Effect The Bond Effect

The Science and Art of Living the Way Nature Intended

# The Bond Briefing

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

**Sunshine is Human Food:** Low Sunshine, More Alzheimer's; Mom's Low Sunshine, MS in Kids; Low Sunshine, More Teenage Ills; Low Sunshine, Fat Teenagers. **Hints:** Parents Underrate Pester Power. **Bone Health:** Alkalinizing Diet Stops Bone Loss; Astronauts' Bone Loss; High Impact Activity Best for Bone Health; A Little Alcohol Helps Bone Mass; Mediterranean Diet Builds Bones. **Q&A:** Bone Health & Vitamin B2; Resveratrol Supplements; Are Multivitamins Worth It? Dried Fruit; Alcohol and Losing Fat; Sweetener – Acesulfame K; Raw Cabbage, Upset Guts; MSG (Monosodium Glutamate); Exotic Foods – Nutritional Value. **Letter:** Greg Harrington. **Our Evolutionary Heritage:** Make of your Gut a Herb Garden – Part IV Bones and Pelvic Pain. **Hints:** Toddlers Eat up Veggies with Catchy Names. **Silly Science:** Vitamin D Doesn't Fix SAD. **Did You Know?** Eggs Reduce Blood Pressure.

### Sunshine is Human Food

*Deficiency of the sunshine vitamin, vitamin D, is a factor in many medical conditions. Some recent findings:*

**Low Sunshine, More Alzheimer's**  
I have frequently spoken of the crusading work of William Grant PhD, founder of [Sunarc](http://Sunarc.com), California. He has now published an article suggesting that one more factor in dementia is vitamin D deficiency [Endnote 1].

**Low Sunshine, More Flu & Colds**  
Dr Adit Ginde of University College, Denver, Colorado finds that people who have the least vitamin D in their blood are 40 percent more likely to have colds and flu than those who have the highest levels. [Endnote 2]

He also finds that 75% of Americans are sunshine deficient [Endnote 3].

**Mom's Low Sunshine, MS in Kids**  
Professor George Ebers of Oxford University, UK finds, worryingly, that mothers who have sunshine deficiency, give birth to children who are more likely to have multiple sclerosis (MS) [Endnote 4].

This is the "epigenetic effect" whereby some aspect of life-style switches on a gene which is then passed on to succeeding generations. See [June 2005](#) and [July 2006](#).

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### Hints & Tips

#### Parents Underrate Pester Power



Children trigger twice as many purchases in supermarkets than their parents realize. So finds Professor Claus Ebster of Vienna University, Austria [Endnote 5].

When asked how many products their children had made them buy, parents only reported half the number of purchases that had been secretly observed.

Ebster discovered that children primarily request products that are placed at their eye-level – which is precisely where retailers place candies and toys.

**Tip 1:** seat your child facing backwards (as in the photo), or use a stroller which gives the child a view of the lowest, uninteresting shelves.

Second, parents are more likely to yield if the product will keep the child quiet during the shopping trip.

**Tip 2:** Bring something from home to keep your child amused.

### Bone Health

*The body is constantly destroying and building bone. In a state of nature this balances out nicely. Today we conspire to destroy bone faster than we build it. Latest news:*

**Alkalinizing Diet Stops Bone Loss**  
Bess Dawson-Hughes, MD, of the USDA Human Nutrition Research Center, USA finds that "consuming more fruits and vegetables is a safe and low-cost approach to improving skeletal health in older men and women" [Endnote 6].

Of course this is old news, and I sometimes wonder how it is that researchers reinvent the wheel every few years.

In 2000, I first reported on this effect in *Natural Eating*, [Chapter 8](#), and again in *Deadly Harvest*, [Chapter 9](#) page 268.

#### Astronauts' Bone Loss

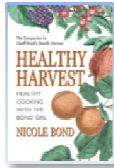
I have frequently reported on the phenomenon that weightlessness softens bones. On the space station astronauts have exercise machines, but they are of limited efficacy. Astronauts regularly lose bone at TEN TIMES the rate of post-menopausal women!

Now NASA has invented a treadmill with a harness that pulls the weightless, floating runner down on to the running surface. They find that this device almost stops bone loss altogether [Endnote 7].

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### Recipe

No space for a recipe this month but you can savor nearly 100 recipes in Nicole's cookbook *Healthy Harvest*. [Info](#).



### Questions

#### Bone Health and Vitamin K2

**Q.** *What is the role of vitamin K2 and its benefit for bone building?*

**A.** Vitamin K2 plays a vital role in maintaining the balance between bone-building cells (osteoblasts) and bone-destroying cells (osteoclasts). Vitamin K2 deficiency increases bone-destruction activity [Endnote 8].

However, few people are deficient in vitamin K2 since "good" intestine bacteria make copious amounts. Even non-Natural Eaters make enough. The only people at risk for developing vitamin K2 deficiency are those with a) damaged intestines, for example those with celiac disease, ulcerative colitis, and surgically removed intestine; and b) anyone on a long course of antibiotics which kill the "good" intestinal bacteria. (See [February 2009](#)).

There is no evidence that vitamin K2 supplementation makes any difference in otherwise healthy people [Endnote 9]

#### Resveratrol Supplements

**Q.** *What is your opinion of the supplement resveratrol from grapes?*

**A.** Better get it from drinking red wine! Seriously, there are tens of thousands of micro-nutrients that the body expects to receive. Stop trying to cherry-pick – even if they (cherries) are rich in anthocyanin! Keep faith that by eating the way we say, you will get all these wondrous compounds in just the right amounts and in the right combinations.

#### Are Multivitamins Worth It?

**Q.** *Do you feel a multivitamin is a waste of money?*

**A.** Yes. See *Deadly Harvest*, [Chapter 7](#), page 170.

#### Dried Fruit

**Q.** *I'm confused about dried fruit, for example, prunes, apricots and figs.*

**A.** See quote from *Deadly Harvest*, [Chapter 7](#), page 168: "You should treat dried fruit (raisins, currants, dates, figs, apricots, peaches, etc.) as sugars. They are, therefore, bad carbohydrates. In addition, the drying process destroys some of the micronutrients, so in no way can dried fruit be a substitute for the fresh variety."

#### Alcohol and Losing Fat

**Q.** *If I include the calories in a glass of wine when calculating my daily intake of calories, will that be enough to lose fat?*

**A.** Not necessarily. Alcohol makes fat cells "insulin resistant". This means that they do not lose their fat so easily (*Deadly Harvest*, [Chapter 3](#), Page 71; Endnote 10). Simply reducing your alcohol intake might be enough to lose fat, but to be sure, stop entirely.

#### Sweetener: Acesulfame K

**Q.** *I see Acesulfame K in some processed foods. Is it OK?*

**A.** Acesulfame K is an intense artificial sweetener and is mostly found in combination with other sweeteners or in processed foods. The various national health authorities have tested and regard it as safe. In Europe it has the additive number E950.

In *Deadly Harvest*, [Chapter 6](#), page 155, I classify it as "Green-Amber", on the basis that it is a whole lot better than sugar itself. However, you would do better to wean yourself off the need for a sweet taste altogether.

#### Raw Cabbage, Upset Guts

**Q.** *I believe raw cabbage upsets my intestines. Would it be better to cook it?*

**A.** Yes, from two points of view. It can indeed provoke digestive upsets. Secondly it contains thyroid attacking compounds [[October 2008](#)] that are neutralized by cooking.

Microwave it in its own juices, blanch it in boiling water or steam it. Don't boil it to a mush over several hours like our grandparents used to do!

#### MSG (Monosodium Glutamate)

**Q.** *I see MSG in some foods and worry that will make me sick.*

**A.** MSG is actually an amino acid (a protein building block) and is naturally widespread in nature and in the body. It has the so-called "umami" taste and is used as a flavor enhancer in many food preparations. Chinese restaurants use MSG routinely in their cooking.

In 1968, Robert Ho Man Kwok, MD, wrote a letter to the *New England Journal of Medicine*, coining the term "*Chinese restaurant syndrome*" for symptoms he experienced after eating Chinese food.

However, the most exhaustive tests have not found MSG to provoke any symptoms whatsoever. It is unlikely that it will harm you either.

#### Exotic Foods - Nutritional Value

**Q.** *When I lived in Borneo, an Iban warrior offered to shoot down a bat as a delicacy for me. I declined – but would it have been nutritious?*

**A.** Probably. But there is surprisingly little information on the nutritional profile of bat meat. I imagine it would be rather like eating a small bird like a thrush.

Curiously, there is much more information about creatures like earthworms, locusts, bees, spiders, beetles and other bugs - often called "mini-livestock".

Consumption of these creatures is not restricted to obscure tribes in the jungles of the Amazon. They are staple foods for billions of people in Asia. I wrote about it as recently as [June 2008](#) ("Food Scarcity - Mini-livestock Here We Come") and in a [Press Article](#).

See also see my "Earthworms of the Amazon" in Newsletter [January 2003](#); and "Beetlemania" in Newsletter [March 2001](#). [Endnote 11]

#### Letters

#### Health is Not That Hard

"Thanks so much for the response. Honor to talk to you. Great work. Wish people would just wake up and get it. Health is not that hard."

- Greg Harrington, WA, USA.  
[www.gramercycellars.com](http://www.gramercycellars.com)

#### Our Evolutionary Heritage

#### Make of Your Gut a Herb Garden - Part IV

[Last month](#) I described how "good" gut bacteria boost the immune system. Now we look at how they affect bone building and how spicy foods affect bladder problems.

#### Bone Building

More interestingly, Dr Gerard Karsenty, Columbia University, New York, finds that it take guts to build bone [Endnote 12]. Most of us are familiar with the brain chemical called "serotonin" - famously it controls mood.

However, surprisingly, the gut also produces serotonin - and in much larger quantities than does the brain. Karsenty finds that "bad" gut bugs stimulate excess serotonin which in turn attacks bone building.

By the way, the blood-brain barrier prevents gut serotonin from affecting brain serotonin and vice-versa.

#### Cystitis, Bladder Irritation and Pelvic Pain

Remarkably Dr David Klumpp at Northwestern University School of Medicine, Chicago, finds that

the colon talks with the bladder [Endnote 13].

When the colon feels irritation, it transmits the pain to the bladder area including the prostate. If you eat spicy food like curry or chili con carne, then you are likely to feel the pain in the bladder and surroundings. Women find cystitis symptoms aggravated and want to urinate frequently.

Some of Nicole's recipes (*Healthy Harvest*, p. 2) use a dash of Tabasco or curry powder. We consider these tiny amounts to be well within the ability of a healthy body to handle. However, if you are indeed suffering bladder or pelvic irritation, try eliminating spicy food completely.

**Next Month:** *Antibiotics wreck gut health.*

#### Hints & Tips

#### Toddlers Eat up Veggies with Catchy Names

When four-year-olds were given carrots called "X-ray Vision Carrots" they ate twice as much as when they were just called "carrots".

Dr Brian Wansink presented his findings at the annual meeting of the School Nutrition Association in Washington DC.

"Cool names make for cool foods", he says. Try "Power Peas" and "Dinosaur Broccoli Trees".

Try this on your own kids. Invent names that will appeal to their particular interests. "Whatever sparks their imagination seems to spark their appetite."

#### Silly Science

*Oftentimes scientists are so close to their subject that they miss the obvious.*

#### Vitamin D Doesn't fix SAD

Dr Oscar Franco of Warwick University, UK could find no evidence that pills of the sunshine vitamin, vitamin D alleviate the winter blues or SAD (Seasonal Affective Disorder) [Endnote 14].

**Our View?** Of course not! It is the LIGHT that is necessary, not just vitamin D tablets.

That is one of many reasons why supplements cannot substitute for the real thing: *sunshine*. See *Sunshine is Human Food*, Page 1.

#### Did You Know?

#### Eggs Reduce Blood Pressure.

We know that eggs have always been an important part of the human diet from the dawn of time.

It is only recently that, quite unfairly, eggs have been vilified on account of their cholesterol content. I have explained many times that cholesterol in food is a red herring: the body either uses it or not according to OTHER biochemical instructions - which may or not be unhinged by dysfunctional, lifestyle habits [Endnote 15].

Now, Dr Majumder of the University of Alberta, Canada, finds that, quite naturally, eggs, particularly fried eggs, generate good amounts of potent "ACE inhibitors" [Endnote 16]. These are chemicals that doctors frequently prescribe to reduce blood pressure.

#### Continued From Page 1

#### Sunshine is Human Food

#### Low Sunshine, More Teenage Ills

At the American Heart Association's 49<sup>th</sup> annual conference, March 2009, Jared P Reis Ph.D. of Johns Hopkins, Baltimore, USA, announced that his studies show that teenagers with least vitamin D were 2.4 times more likely to have high blood pressure, 2.5 times more likely to have high blood sugar, and 4 times as likely to have metabolic syndrome.

#### Low Sunshine, Fat Teenagers

At the same conference (above) Dr Yanbin Dong of the Medical College Georgia, USA, said his studies indicate that those teenagers who had the least vitamin D were most likely to be obese.

### Bone Health (Cont.)

It does not surprise me that so-called high impact exercise is an important factor in bone health. That is the pattern which our evolutionary history designed for us. See *next item*.

#### High Impact Activity Best for Bone Health

Dr Pam Hinton of the University of Missouri, USA, finds that high impact, multidirectional, dynamic activity is necessary to maintain bone health [Endnote 17]. Examples are running, basketball, volleyball, soccer, and racquet sports (e.g. tennis, badminton, squash).

Resistance-training (e.g. using springs or weights), swimming and cycling do not stimulate bone building in the same way (but are still good for other health factors).

**Our View?** Our evolutionary history means that our bones come to rely on signals provided by the jolting of high impact activity. It creates

microscopic fractures in the bones' matrix which stimulate the bone building cells to create new bone. See *Deadly Harvest, Chapter 9*, page 270

#### A Little Alcohol Helps Bone Mass

Good news for those who like a tippie. Katherine Tucker PhD of USDA research center finds that one or two drinks a day correlates to stronger bones compared to people who drank either no alcohol or who drank more [Endnote 18].

Again, this reinforces old news: I first reported on it in *Natural Eating* and again in *Deadly Harvest*.

Tucker defined one "drink" as:

- Beer - one glass, bottle or can (12 fl oz, 0.34 liter)
- Wine - one 4-oz glass (118 ml)
- Spirits - one shot (1/3 gill, 1.4 fl oz, 42 ml)

#### Mediterranean Diet Builds Bones

Dr Kontogianni of Harokopio University, Athens, Greece,

finds that a Mediterranean diet, rich in plant food, olive oil and fish and low in red meat, dairy and cereals, is correlated with good bone health [Endnote 19]

**Our View?** This sounds familiar! The Mediterranean diet has its flaws, but at least ancient Greeks like Aristotle and Helen of Troy didn't suffer hip fractures or dowager's hump.

### Future planning

#### London Anti-ageing Conference

[www.antiageingconference.com](http://www.antiageingconference.com)  
*Ageing-reverse the ageing process by learning the vital secrets of longevity which lie in our genes*  
Workshop: p.m. Friday Sept 11<sup>th</sup>  
Lecture: Sunday Sept 13<sup>th</sup>.

**At:** The Royal Marsden Education and Conference Centre, Stewarts Grove, South Kensington, London.

#### USA Tour 2010

Continuing Medical Education (CME) lectures for hospital physicians in southern California: February 10 - March 16<sup>th</sup>.

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