

Natural Eating: Eating in Harmony with our Genetic Heritage

May 2000

Nutritional Anthropology™

Volume 3.05

# The Bond Effect

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

## Private Subscription Newsletter

Hominid Whale Food; Europe's Seven Matriarchs; **Virtue:** Spectrum's Mayo; **Recipe:** Broccoli Loaf; **Questions:** Middle C; Popeye's Kidney Stones; Soy the Silent Killer; Coffee and Tea; **Darwin:** Buitoni's Alfredo Sauce; **Exercise:** No Strain – No Gain; **Nutrient Policy:** Government ups RNI's; Government Caps Supplements; **Fast Food:** IHOP salads; **Misconception:** Alcohol and Blood Sugar; **Kiddy Corner:** Soy Birth Pill for Babies.

### Ancient Foods

#### A Whale of a Time

Fossils of a whale that beached on an African shore more than a million years ago and was subsequently butchered by hominids have been recovered near the town of Benguela, 250 miles south of Luanda, Angola.

This is the first time a dismembered whale has turned up at a Paleolithic site, elephants and hippopotamuses being far more typical hominid prey.

Manuel Gutierrez of the Université de Paris-10 and Angolan researchers say that the whale measured 18 feet long and was probably a baleen.

The site is still littered with the shells, sharks' teeth, and sea urchins of the ancient shore, now two miles distant and 300 feet above the sea.

#### Comment:

Right up till living memory, Australian aboriginals were known to seize upon a beached whale and butcher it with rudimentary stone tools. They would gorge on the whale meat, putrid or not, for days until it was all gone.

**Continued:** page 5.

### Anthropology

#### Europeans Descended from Just Seven Women

Arriving at different times during the last 45,000 years, they survived wolves, bears and ice ages to form different clans that eventually became today's population.

These are the claims of Bryan Sykes, professor of human genetics at Oxford University. Professor Sykes arrived at his conclusion by studying mitochondrial DNA, which is passed down from mothers to children.

From 6000 random samples, and allowing for naturally occurring mutations, he established seven different clusters of DNA.

Professor Sykes says that the ancestry of 99% of Europeans can now be traced back to the seven women who founded the clans.

His discovery also reinforces the theory that modern human beings have their origins in ancient Africa. Professor Sykes found that the seven ancestral mothers have strong genetic links to one of three clans that still exist in Africa today.

**Continued –** page 5.

### Virtue Label

*Not all processed foods are rubbish. Here we encourage a food producer who is trying to do the right thing.*

Comments page 5.



#### Ingredients:

Water, Pure Pressed™ canola oil, modified food starch (corn), grain vinegar, cultured skim milk, whey protein concentrate, sea salt, cider vinegar, natural spices, citric acid, dehydrated onion, oil of mustard, turmeric and paprika.

Nutrition Facts:	
Serving size	1 tbsp
Calories	35
From fat	30
Amount per serving	
Total fat	3 g
Sat fat	0 g
Cholesterol	0 g
Sodium	60mg
Total Carb.	1 g
Dietary Fiber	0 g
Total Sugar	0 g
Protein	0 g

**Now turn to Page 5**

## Recipe of the Month

*Nicole's Pocket Cookbook is now available (details on back page).*

*Here we publish one of the recipes extracted from the book.*

### Broccoli Loaf

Serves: 4 to 6



#### Ingredients:

- 1 lb. (16 oz, 455g) broccoli florets, frozen.
- $\frac{1}{2}$  cup (4 fl oz, 125 ml) vegetable broth, canned or home made
- 3 eggs, high omega 3, free range
- 2 tablesp. non-fat yogurt
- 2 cloves garlic, crushed
- 2 tablesp. (30ml) canola oil
- 1 pinch nutmeg powder
- salt (moderate)
- pepper

#### Method:

Take two florets of broccoli and set aside for decoration.

Sauté the rest of the broccoli rapidly in the oil.

Add the garlic and vegetable broth. Salt and pepper to taste.

Sauté for about 10 minutes. The broccoli should stay crunchy.

Drain in a colander.

Put the broccoli mixture into an oiled loaf mold. Press down carefully.

Beat the eggs with the yogurt and nutmeg. Salt and pepper to taste.

Add the mixture to the broccoli in the mold. Carefully press the broccoli down into the liquid to

expel air and to keep it under the surface of the liquid.

Bake in a hot oven (400°F, 200°C) for about 45 minutes. Start checking after 35 minutes.

#### Comment:

Delicious served hot or cold.

The dish loses a candle only because of the use of a dairy product, yogurt. Anyone suspecting allergic reactions, or trying to reduce cholesterol, should leave it out.

## Reader's Questions

### Middle C

**Q.** *In an article last month you highlighted the dangers to health of overdosing on Vitamin C. What is considered a healthy daily consumption then?*

**A.** We now have a pretty good idea what that must have been for our Pleistocene ancestors in the savannahs of East Africa.

As discussed in the Natural Eating book coming out next month, their intake would have been around 500 mg per day. Note that this was obtained in their food, drip-fed in throughout the day and of course in association with all the other micronutrients present in the vegetation.

Everything we know about our biochemistry suggests that this is the optimum amount *and the optimum way* to obtain our vitamin C.

Much more is likely to be counter-productive (last month's Sorcerer's Apprentice Syndrome). Much less is not enough.

The FDA has recently revised upwards its minimum intake (see Nutrient Intakes) and, for the first time a *maximum* intake has been established. (See Micronutrient Policy)

What does this mean for the Natural Eater? Throw out the pills, just eat in accordance with our

precepts and the quantity of Vitamin C will work out just right.

### Kidney Stones for Popeye?

**Q.** *I have heard that spinach should only be eaten raw. It is claimed that by cooking spinach, the anti-nutrient oxalic acid is released. What is the truth of the matter?*

**A.** Oxalic acid is present in many foods including tea, cocoa, nuts and rhubarb. Even vitamin C mega doses are metabolized to oxalate in the body. How many people worry about that?

What might be the problem with oxalic acid? It does have the inconvenient property of binding to calcium and so it inhibits calcium absorption in the gut.

More seriously, calcium oxalate could crystallize out in the kidneys, provoking kidney stones and disease.

Should we worry about it? Not really. Anyone who is eating the Natural Eating way will cope perfectly well with the oxalates naturally present in the diet.

Should the spinach always be eaten raw? If you can cope with that, fine. Much more important, spinach is a super-vegetable. Get it into your body, whether cooked or raw, on a regular basis.

### Soy the Silent Saboteur

**Q.** *Soy products are all the rage and yet you don't talk about them much. What is the Natural Eater's position on soy?*

**A.** Legumes, of which soy is one, were never part of our ancestral eating pattern – and they have drawbacks.

The chief one is the presence of anti-nutrients and toxins which humans are ill equipped to deal with. (Just like cereals in fact.)

However, this never really came to the public's attention because, until recently, the consumption of beans and lentils was tiny.

Now soy has burst on the scene. The marketers have got the bit between their teeth and soy gets

into everything. It is sold as a healthy alternative to meat, and soy derivatives adulterate all kinds of processed foods.

In 1913, soy was still listed not as a food but as an industrial product! And with good reason – even today, the FDA has not accorded GRAS (Generally Recognized as Safe) status to soy protein. It is only approved for use as a binder in cardboard boxes!

This means that the manufacturer has to apply for special exemption each time he wants to put soy protein in food.

What is so wrong with soy? Here is a run-down on some of those anti-nutrients and what they can do.

**Trypsin Inhibitors:** block the absorption of proteins and can create protein deficiency. They attack the pancreas and can even lead to pancreatic cancer.

**Hemagglutinin:** causes abnormal clotting of red blood cells.

**Goitrogens:** depress thyroid function leading to goiter, fatigue and lethargy. (See 'The Pill for Babies')

**Isoflavones:** interfere with fertility and reduce libido. They encourage damagingly early menarche (first menstrual period). Affected male fetuses poorly develop maleness later in life. Aging is accelerated and Alzheimer's disease encouraged. Together with *Genistein* and *Diadzen*, endocrine function is disrupted leading to liver and kidney disorders and breast cancer.

**Phytates:** block absorption of a host of micronutrients. They can create deficiencies of calcium, vitamin D, magnesium, molybdenum, copper, iron and zinc.

That is quite a litany of drawbacks and that is not the full story. But what are we to make of it? Now let's put all this into perspective.

Soy anti-nutrients have only become a problem since soy products have become all pervasive and many people have transferred to eating high quantities of them.

For soy products not to be a problem any more, we need to keep our consumption of them down to where it was 20 years ago.

Avoid overdosing on soy-based burgers, frankfurters and bacon. One reason we liked Amy's *California Burger* (featured as our Virtue Label in February 2000) is that it is based on vegetables and not soy.

Avoid overdosing on tofu, soy ice cream and soy cheese. Use soymilk sparingly (as we do in some of our recipes). Avoid feeding babies on soy-based formula. (see 'The Pill for Babies')

Bottom Line: soy can be part of our eating pattern but treat it warily and keep consumption modest.

### Coffee and Tea

**Q.** *What about drinks with a meal. Is it all right to have coffee or tea?*

**A.** Drinking fluids with a meal per se is not a problem. The stomach quickly adjusts the stomach acidity to suit. However, depending on the type of drink, there can be other drawbacks.

Water is best. American (weak, filtered) coffee is OK and so is dry wine. Tea has the inconvenient property of binding up micronutrients and rendering them non-bioavailable. Drinking tea with a meal is therefore better avoided.

### Agent Orange

**Q.** *I have heard that citrus fruits should be avoided because they are too acid.*

**A.** Buried in this question is a common misconception – that our taste buds are a good guide to what we are consuming. They aren't!

The measure of acidity is known as the pH value. 0 is *most* acid ranging up to 7, which is neutral.

Now let's look at the figures: Stomach acid is about 1, colas, wine and vinegar are about 2, grapefruit is about 2.5, and orange is about 4.

So we see here that stomach acid is already more acidic than anything we are likely to eat.

Secondly, orange and even grapefruit are *less* acidic than other commonly consumed drinks such as cola and wine.

Finally, remember that acid fruits have a beneficial *alkalizing* effect on the body. (The acid fraction gets breathed away, leaving the alkaline fraction in the body.)

Moral? Eat up your citrus fruits! They are full of goodies and from the acidity point of view perfectly safe.

A few people have allergic reactions to citrus fruits, manifested by rashes, joint stiffness and congestion. That would be a legitimate reason to leave them alone.

### Darwin Food

**Only the fittest survive**

#### Buitoni Alfredo Sauce

This thick, creamy, great tasting goo will not only fill your tummy but also your arteries. One serving is only ¼ cup. Even on this miserly basis you will be getting 130 calories and 7 grams of the dreaded saturated fat. Most people would double that in a normal helping. **AVOID**

### Muscle Toning

#### No Strain – No Gain

You should choose a weight for each exercise you do based upon being able to do 12 repetitions with it. You should be struggling, but able to complete the 12th repetition.

If you could continue and do 15 or more repetitions with your chosen weight, then it is too light. Conversely, if you can't perform 12 repetitions with good technique, then the weight is too heavy.

### Micronutrient Policy

#### Government sets new Standards

The new National Academy of Sciences (NAS) and the Institute of Medicine have come up with some revised standards for nutrient

intake. [They make no apology for getting it wrong last time!]

Furthermore, for the first time, standards have been set for *maximum* nutrient intake.

#### a) Vitamin C:

The minimum intake of vitamin C intake is increased by 25% for women from 60 mg to **75** milligrams daily and by 50% for men from 60mg to **90** milligrams per day. Smokers should get an extra **35** milligrams daily.

It is further recommended that consumers should get their vitamin C through diet and not pills. The vitamin C interacts with hundreds of other nutrients in the foods to help protect against cancer and other diseases.

Taking vitamin "mega-doses" may result in health problems rather than benefits. For the first time a *maximum* intake of vitamin C is established: adults should keep their daily vitamin C intake from both food *and* supplements below **2,000** milligrams.

#### b) Vitamin E

For both men and women, the minimum daily intake is increased 50% from 10 mg to **15** mg (22 i.u.) per day. The vitamin E consumed should be from food sources.

The *upper* level for vitamin E is **1,000** mg (1,500 i.u.) of d-alpha-tocopherol, sometimes labeled as "natural source" vitamin E.

#### c) Selenium

There has never been a recommendation for selenium in the past.

Women and men should get a minimum of **55 micrograms** [not *milligrams*] per day from their food.

The upper level of selenium, from both food and supplements, is set at **400** mcg per day.

#### Comment:

Anyone following the Natural Eating pattern is unlikely to be deficient or overdosing on micronutrients – after all, that's what 'eating in harmony with our genetic programming' means!

The maximum doses are still way above the optimum amount for the body. Nevertheless it's a start. This is the first time that a regulatory body has set any kind of upper limit on a micronutrient supplement. It is good to challenge the consumer mentality that, if something is good, then more of it will be better. This is patently untrue. For example, the false notion that the body harmlessly expels any vitamin C surplus to requirements has to be fought. For starters, just check out last month's issue – 'Mega C Feeds Cancer' and 'Mega C Hardens Arteries'.

**Vitamin C** is found in almost every fruit and green plant food. Particularly concentrated sources of vitamin C are oranges, grapefruit, strawberries, broccoli, cabbage and leafy green vegetables.

Recent government data shows that a third of Americans consume inadequate levels of vitamin C. Worse, the chief source of vitamin C in the American diet is French fries!

A Natural Eater will be getting the ideal 500mg daily quite naturally from what he eats. (See 'Middle C')

**Vitamin E** is an antioxidant for humans but, more fundamentally, it is nature's tool for preventing oils present in plants from going rancid.

Concentrated sources of Vitamin E are found in foods like nuts, particularly almonds, hazelnuts and Brazil nuts and in Canola (rape-seed) oil and peanuts.

In general the Natural Eater gets the optimum of micronutrients just from his food. Just 2 oz of raw, fresh, almonds will provide a daily minimum of vitamin E. However, in today's world, vitamin E is bred out, or processed out, of much of our food supply.

For this reason, exceptionally, it is suggested that Natural Eaters take a modest top up dose. Ideally it would be 50 i.u. of 'natural source' vitamin E daily. But such low dosage capsules are hard to find. Alternatively take 100 i.u. every second day.

In reality vitamin E is a cocktail of related compounds, and it matters what the recipe is. Check out 'Two-faced Vitamin E' in issue number 2.04 (April 1999).

**Selenium** is a vital anti-oxidant mineral, found in a wide variety of plant foods and animal matter. Seafood is particularly rich.

The concentrations of selenium in foods depend arbitrarily on the soils where they are grown, or the food the animal ate. In many parts of the world, including Britain and Scandinavia, the soils are deficient.

For this reason, exceptionally, it is recommended that Natural Eaters top-up with 25 mcg of selenium per day. Again it is hard to find such low dose supplements so it is fine, alternatively, to take 50mcg every two days.

### Dining Out

*It is possible to eat wisely even in popular chain restaurants.*

#### IHOP – International House of Pancakes

The glory of this chain is their salads. If nothing else, try one just to see the *quantity* of sheer vegetation that is served. It is a family sized salad bowl just for one person. This fits exactly with our precepts.

However you do need to negotiate a little with the server. Say that you want a special order salad. It has all the usual plants: lettuce, tomato, cucumber, cabbage, onion, mushroom, radish...

Optionally, if olives and avocado are available, these are fine.

Then say clearly what you don't want: cheese, croutons, potato, sweet corn...

Then choose, if you want, a protein element. Any of these are fine: chicken breast, turkey breast, tuna and egg.

Finally, there is an automatic accompaniment – garlic cheese bread. Say very firmly, that you do not even want to see it!

This is an example of how it is possible to negotiate a perfectly

conforming meal in a fast food restaurant.

The server will not be disagreeable. They are there to serve the customer and will do their best to accommodate your requirements.

### Misconceptions

*"Alcohol turns to sugar in the blood"*

Wrong! Alcohol sticks around in the bloodstream as alcohol for quite a long time – as anyone doing a drunk-driving blood test will testify.

Over a period of several hours alcohol is gradually converted by the liver into acetaldehyde and thence into acetate.

Alcohol disturbs all kinds of body mechanisms, but raising blood sugar levels is not one of them. If anything it does the opposite.

Perhaps the misconception arises because alcohol is uncontroversibly fattening – as sugar is. But it is for different reasons.

Alcohol fattens because it causes the fat cells to keep fat locked up, and because it is just empty calories.

### Kiddy Corner

#### The Pill For Babies

Some 25 per cent of bottle-fed children in the US are fed on soy-based formula. They receive the adult equivalent of five birth control pills per day. By contrast, almost no phytoestrogens have been detected in human milk, even when the mother consumes soy products.

Scientists have known for years that soy-based formula can cause thyroid problems in babies. But what are the effects of soy products on the hormonal development of the infant, both male and female?

Male infants undergo a "testosterone surge" during the first few months of life. During this period, the infant is programmed to express male characteristics after puberty: sexual organs, pubic hair, and male behavior brain patterns. Soy-fed baby boys often fail to

develop proper male traits later in life.

As for girls, an alarming number are entering puberty much earlier than normal. In the 1986 Puerto Rico Premature Thelarche (precocious breast development) study, the most significant dietary association with premature sexual development was not chicken - as reported in the press - but soy infant formula.

Children, of both sexes, fed soy-based formula suffered disproportionately from extreme emotional behavior, asthma, immune system problems, pituitary insufficiency, thyroid disorders and irritable bowel syndrome.

The New Zealand Government issued a warning in 1998 about infant soy formula.

**Sources:** *Irvine et al; The potential adverse effects of phytoestrogens in infant feeding; New Zealand Medical Journal; May 24, 1995.*

*Freni-Titulaer; Premature Thelarche in Puerto Rico; American Journal of Diseases of Children; 140(12): December 1986*

#### Comment:

It is not surprising that feeding your baby the way that nature intended is best. The first few months of life are critical. We play with fire by feeding our new-borns on man-made surrogates. As children get older it is possible to introduce soymilk, but treat it warily and feed frugally. (See Soy the Silent Saboteur.)

### From Page One

#### Whale of a Time

Here, talk is of 'hominids' over one million years ago on the Atlantic shores of Angola. Were they our ancestors? No – although we almost certainly have an ancestor in common. Our ancestors originated much later, several thousand miles away on the other side of the continent. They were inland dwellers and would never have seen a whale. However they did have the occasional fresh-water fish from lakes and streams.

These whale-eating hominids were likely an earlier 'radiation' of human-like creatures out of East Africa.

#### Europe's Seven Matriarchs

##### Comment:

The study of DNA is an incredibly powerful tool for researching the movements of peoples and their origins. It takes us far back into the mists of time – into areas that were thought to be forever lost.

This is a rich resource that is only at the beginning to be mined for its treasure of hidden information.

### Virtue Label Appraised

#### LITE CANOLA MAYO

##### Comment:

The best thing about this 'mayonnaise' is that it is mostly water. The next ingredient is canola oil – the best for humans.

Inevitably some compromises have to be made to keep the fat content low yet retain the mayonnaise consistency. The price paid is the use of cornstarch and various dairy product derivatives.

No doubt, with a little more thought and experimentation, the processor could come up with better alternatives for these.

For those who worry about these things, this 'mayonnaise' is egg-free.

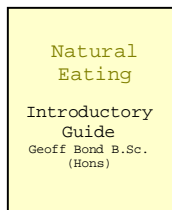
This mayo is fine used in condiment quantities, for example as a thin spread on veggie wraps (see November 1999 newsletter).

*Lite Canola Mayo is distributed by Spectrum Naturals Inc, 133, Copeland St, Petaluma, CA 94952, USA.*

### The Natural Eating Book

The publishers, Griffin Publishing, have now overcome some production delays. The book is now typeset and the book will be shipped end June. Those who pre-register now will receive the discount. Write to us, without commitment, either on-line or at the contact addresses below.

Pre-publication Discount Price:	Full Retail Price
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**'The Bond Effect': Natural Eating, Healthy Thinking**  
 Co-presented with Dr. James Melton.  
**Eaton House School, London**  
 By prior registration only

**Monday June 19<sup>th</sup>, 2000**  
**7:00 to 9:30 pm.**  
**Registration: savvy eater@aol.com**  
**(0)208 959 7549**

**University of 3<sup>rd</sup> Age, Drake Hall, Amersham Community Centre, Amersham, Bucks, UK.**  
 Open to potential members only

**Tuesday, Sept 5<sup>th</sup>, 2000**  
**11:30 a.m. to 12:15**  
**Registration: (0)1494 727473**

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