

NATURAL EATING NATURAL EATING NATURAL EATING

The Science and Art of feeding ourselves the way Nature intended

It is the Science of the feeding pattern that is right for the human species;

It is the Art of applying this knowledge in today's world

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Our Ancient Heritage: The Human Zoo. **Our Biological Heritage:** Friendly Parasites. **Q of Month:** Farming – double edged Sword. **Chuckle.** **Recipe:** Spinach Soup Almond Flavor. **Q&A:** Cancer & Weight Loss; Fish oils – essential?; Vitamin D3 Dismantles Bones; Roasting Nuts – Good or bad? **Food Faddism:** Raw Food. **In the News:** Not all Exercise is Good; Breast Feeding Beats Diabetes. **Fascinating & Important:** Healthy Colon Briefing (4). **Human Heritage:** Origins of Warfare (3). **Physical Activity:** One Minute Per Day.

Our Ancient Heritage

The Human Zoo

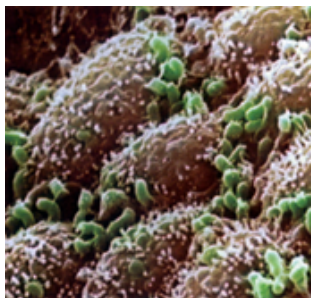
Zoo design has gone through a radical transformation. Cages have been replaced by natural habitats; the animals are free-ranging in environments simulating their natural landscapes. The animals have greater control over their behavior. They forage, play, rest, mate, and act like normal, wild animals.

A key factor in this transformation was zookeeper's concern over the animals' psychological and social well-being. Zoos could keep animals alive, but they couldn't make them flourish. Caged animals exhibited neurotic behavior – pacing, repetitive motions, aggression, and withdrawal. As long ago as 1971, biologist Stephen Boyden said¹ there is a mismatch between humans' evolutionary environment and today's Industrialized settings. We live in a Dickensian zoo. The places where people live and work now are radically different from those which supported human societies for most of *Homo sapiens* existence. Boyden argued that environments need to fully satisfy both "survival needs" and "well-being needs." He established a series of basic needs, such as "connection to the natural environment", that should be observed in designing work and living spaces.

Unsurprisingly, people like to work where there is a window – and it should have views of landscapes, not a parking lot. (see Nature Reduces Attention Deficit Disorder, July 2005). Far-sighted architects and designers are now taking this issue seriously in the design of buildings. **Cont p. 4**

Our Biological Heritage

Friendly Parasites



As we have been describing in our colon briefings (see latest -- page 3), our guts are home to thriving colonies of parasites – bacteria, fungi and yeasts. When all is well with the way we eat, these parasites (or "flora") are the "friendly" variety. When we eat badly, as is widely the case, then many of these parasites are species that suck our lifeblood.

Our colons host a huge mass – some 3 lb (1½ kg) of this flora. However, many species thrive in every part of our digestive system.

The photograph above shows bacteria (green) living on the walls of the "duodenum" – the highly acid part of the small intestine after the stomach.

Over 400 different species of bacteria inhabit our guts and scientists are still counting. Surprisingly we know less about what goes on in our guts that we do about the surface of Mars. Researchers are discovering some amazing effects. Some species of bacteria convert medications into poisonous compounds: some bacteria are probably responsible for making the arthritis drug Vioxx poisonous to some people².

Moral? We need to cultivate the bugs in our guts as carefully as we would a herb garden.

Question of Month

Farming – Double Edged sword

Q. *I am having a hard time accepting that human health declined after the farming revolution. Can you explain some more?*

A. From physical anthropological evidence, we know that the earliest farmers suffered a sharply reduced quality of life: reduction of stature^{3,4,5,6}, increase in infant deaths^{6,7}, a reduction of lifespan^{6,7}, increase in infectious diseases^{6,7,8,9}, an increase in anemia^{6,7,9}, diseased bones^{3,6,7,9} and tooth decay^{6,7,10}. Today we can also link grain consumption to many other conditions that cannot be preserved in the archaeological record including brain disorders such as autism¹¹, schizophrenia¹² and epilepsy^{13,14}; and links to immune system disorders such as multiple sclerosis¹⁵, rheumatoid arthritis^{16,17}, eczema¹⁸ and allergies. There is even a common occupational ailment in the baking industry, "baker's asthma", a debilitating allergic reaction to cereal flours.

We are only recently beginning to discover a host of microscopic substances, known as antinutrients, that are common in grains and that are secretly gnawing at the foundations of our health in many unsuspected ways. There were more subtle, hidden drawbacks too. These grain eaters suffered from bone deformities and osteoarthritis, as described¹⁹ by British Museum paleontologist Theya Molleson. **Cont. P 4**

Chuckle

"Never take life seriously. Nobody gets out alive anyway."

Recipes

This month we pass on this recipe from reader Julie Tenenbaum.

Spinach Soup Almond Flavor



Ingredients

1 lb. spinach
1 medium apple, Granny Smith
 $\frac{1}{2}$ cup almond butter
4 cups vegetable stock
1 Tbsp. curry powder
Salt and pepper to taste

Method:

Wash spinach thoroughly. Remove tough ends of stems and discard.

Chop spinach in a food processor or blender.

Quarter apple, peel and remove seeds. Add apple to work bowl and continue chopping.

Add almond butter and work machine until ingredients are assimilated. Use small amounts of stock to keep blade moving. Add remaining stock and continue processing until a soup-like consistency is formed.

Add curry powder and whirl machine once again. Remove soup to kettle and warm slowly. Do not allow soup to simmer. Stir frequently.

Comment:

We pass on this recipe as we received it. We have not yet given it a bench test, but it is certainly sound in its basic principles. Let us know how you get on!

Questions

Cancer and Weight Loss

Q. *My husband Kris, who is battling prostate cancer, is 6'-0". Six weeks ago he started your program at 165 pounds, and is now down to 150. He eats very well, is a good cook and is very creative with the foods that are allowed. He is hungry most of the time and he wonders if he should be concerned about the weight loss. Will he stabilize at some point?*

A. It just goes to show that we have lost a sense of what is a normal size

and shape for a human being. Kris, at 150 lb, is right in the middle of the normal healthy range for his height. In fact he could afford to go quite a bit lower – down at 135 lb he would be at a weight which is still healthy but where the cancer cells are really being starved. One caveat: The weight loss is fine provided it is fat. Kris has to make sure he keeps his lean tissue by sustaining his exercise and muscle building program.

It is a good thing to feel hungry quite a bit. Nevertheless, it need not be acute. One really has to think of a step change in volume of plant food. He might feel that he is eating all the time, but really do think in terms of consuming 3 to 4 lb of conforming salads and vegetation per day. Some of it can be cooked – but that's another question – see Raw Food later.

Fish Oils - "Essential"?

Q. *You talk about fish oil (which contains EPA^a and DHA^b) as providing essential fatty acids. I thought that the only essential fatty acids were Linoleic acid (LA) and Alpha-Linolenic Acid (ALA).*

A. The short answer is that ALA, EPA and DHA all belong to the omega-3 family of fatty acids. Ultimately, the only thing that matters is that we consume from this family -- the body then makes what it needs.

More specifically, ALA is the raw material from which the body makes EPA and DHA. These in turn are converted into the hormones (known as prostaglandins) that our biochemistry needs to function properly.

So in a way, by consuming EPA and DHA, we are cutting out some complex chemical reactions and getting to the objective faster. Indeed, sometimes the body loses its ability to convert ALA into EPA and DHA efficiently. This can happen, for example, with certain viral infections, with advancing age, and with the consumption of "bad" fats such as trans-fats.

How this happens is illustrated by a similar process for Linoleic Acid which is shown in the "Hormone Cascade" diagram on page 77 of the Natural Eating book.

^a EicosaPentaenoicAcid
^b DocosaHexaenoicAcid

Vitamin D3 Dismantles Bone

Q. *In the October Newsletter, you say that examples of excess production of bone-dismantling hormones include vitamin D3. Are you saying that D3 is a bone-dismantling hormone, or that the way we eat slows production of D3?*

A. Yes, what we are saying is that bone destroying cells *multiply* under the activity of Vitamin D3. Dr Jane Aubin described it well back in 2000²⁰. Vitamin D3 is the variety of Vitamin D known as "cholecalciferol".

This is the Janus face of vitamin D. It improves calcium absorption yet it encourages bone destruction. That is why we say that it is impossible to micromanage these processes. We need to live our lives as nature intended and then it all works out as it should.

Roasting Nuts - Good or Bad?

Q. *What is the problem with roasting nuts – such as almonds?*

A. The chief objection is that roasting oxidizes many of the fats in the nut. Oxidized fat is just as destructive to the human body as saturated fat or trans-fat.

The second objection relates to omega-3 rich nuts such as walnut. Roasting kills the beneficial omega-3 oils. Worse, it oxidizes them, making them enemies instead of friends.

Food Faddism

Raw Food

Reader Louise Coulter writes:

"I attended a couple of international raw food festivals. I was struck by how sickly most of the adherents looked. There was a woman, nursing a 5 month old who had dark rings around her eyes and seemed very depressed. Most raw foodists consume a large proportion of their calories from nuts, seeds and grains.

Although they usually do eat lots of plants and fruits they are mixed together in various concoctions to resemble the meals they gave up to be raw vegan."

As we said in our article in October 2004, plant food, which is raw, is best – so long as it is of the right kind – and eat like a gorilla! Eat good volumes of "conforming" plant food and avoid the non-conforming ones such as soy, grains, lentils and pasta.

With regard to raw food, being realistic, so long as we consume a good ration of conforming fruits every day and a large salad, we have done our duty to the idol "raw".

In the News

Not all Exercise is Good

A study²¹ of Ironman Triathlon athletes strongly suggests that ultra-endurance athletes can cause damage to their heart muscles. Problems affecting the heart's right ventricle are found in 90% of athletes.

Most people in the country are under-exercised. In contrast, some people are "extreme" athletes – we count a few Ironmen amongst our Natural Eating followers.

We have described²² how the San on occasion would jog for several days in their chase after a herd of eland. Jogging is clearly a harmonious physical activity for humans. Nevertheless, the human frame is not designed for the extreme stress of Ironman competition.

In fact we really need a combination of steady running and sharp bursts of sprinting (see "One Minute per Day" later.) Scandinavian long-distance runners used this system of training with great success after WWII; they called it "fartlek".

Breast Feeding Beats Diabetes

Breast feeding mums burn almost 500 calories per day – equivalent to running four to five miles. This, in part, accounts for the fact that breast feeding, if carried out for a year, is highly protective against diabetes according to Dr. Alison Stuebe²³.

We look at these matters from the other end of the telescope: if breast feeding has been the only way of nourishing offspring for the whole of human existence then the woman's body will come to rely on it to function properly.

Traditionally women breast fed a series of babies almost continuously for some 30 years of their lives. If they do not, things start to go wrong. – Breast cancer is the big one, but more subtle effects are to be found in poor calcium metabolism for example. Of course the benefits of breast feeding for the child are legion as reported at length in many newsletters.

Fascinating and Important

Healthy Colon Briefing (4)

Last month we looked at the beneficial role of viscous fiber and how some harmful foods cause our colons to become "leaky". Now we look at how some common foods actually set off allergic reactions in the colon.

The body deals with infections and injury with a reaction called inflammation. This is a not only normal, but necessary for healing to take place.

Inflammation is the essential process by which the body fights infection.

Inflammation is set in train by special immune system cells called "mast cells". Mast cells release chemicals that increase permeability of blood vessels (leading to swelling), contraction of smooth muscles (for example bronchial muscles) and increase mucus production. However uncomfortable this might be, it is in a good cause – fighting infection.

Many mast cells line the intestine where they stand guard – watching out for harmful foreign bodies trying to enter the blood stream.

We come now to see how allergens in the diet wreak havoc on our bodies. Allergens trick the mast cells into thinking they need to make an inflammatory reaction.

Also allergens wither and then destroy the tiny, delicate hair-like structures called "villi" lining the colon. Their vital function is to absorb nutrients.

The colon is also lined with millions of tiny pockets called "crypts" which are in turn lined with stem cells. Allergens provoke abnormal, tumorous growth of the stem cells, increasing the risk of cancer.

An important function of the colon wall is to secrete mucus, potassium and bicarbonate. In reverse, it is supposed to absorb sodium and chloride. Allergens disrupt the transport of these substances across the intestinal wall. In particular they cause the colon to become more porous.

What foods contain these allergens? The biggest culprits are grains, particularly wheat, and dairy products.

Next month: *Why the contents of our colons smell like sewage sludge.*

Human Heritage

Origins of Warfare (3)

In November we continued our exploration of murderous violence in hunter-gatherer societies...

It seems, then, that for most of human evolutionary history, human males have been involved in bloody conflict: ones which more than decimate the male population. There are a few other species that also do this: chimpanzees and wolves are examples. A common thread is this: the killing is of "them" -- the out-group.

Moses came down from the mountain with a commandment saying: "Thou shalt not kill". Yet, within a little while, he and the Israelites were slaying all the Midianites and enslaving their virgins²⁴.

Quite naturally, as the leader of a small band of nomads, the laws that Moses introduced applied only to the in-group, the members of his own band. The laws did not apply in dealings with out-groups.

The same applies to chimpanzees and wolves: they are restrained with members of their own pack, they direct their murderous activities to outsiders, the out-group.

Next month: *What it's all for*

Physical Activity

One Minute Per Day

Geoff Bond reports:

"After giving the keynote speech at the Walter T Stec seminar, I was followed by Dr. Mark Smith, from the University of Colorado. Mark is a specialist in exercise from an evolutionary point of view.

"Mark illustrated his talk by asking us to imagine a hunter-gatherer in Pleistocene times being confronted by a lion. [Or indeed a woman rescuing a child from some immediate danger.] Either way, that person sprang into action and dashed off at full power.

"How might this apply to us today? It seems that physical exercise that includes bursts of activity at full power for as long as can be sustained is very beneficial.

"Mark challenged us to imagine sprinting up the steps of a football stadium until we drop. To start with, you can probably only keep it up for 15 to 20 seconds. However, day by

day, you will gradually improve. In this way you are setting yourself up for great fitness. In this condition, you have pumped up your metabolic rate to maximum and it will hold a high level for many hours. This means that, even if you are only sitting still afterwards, you will still be burning lots of fat.

"Mark says that we should aim to get to the point where we can do this exercise for one minute. I would add that, if you are very unfit to start with, you should build up slowly – and check first with your doctor".

From Page 1

Question of Month

Farming – Double Edged Sword

The Italian physical anthropologist, Vincenzo Formicola found²⁵ that the population abruptly lost stature when they abandoned foraging. These surprising observations indicate that all was not well with this new food supply.

We can also mention the various infectious diseases that crossed over from animals to humans once humans domesticated and lived in close contact with them. Examples are: tuberculosis, measles and smallpox (from cattle); flu (from pigs and ducks); whooping cough (from pigs and dogs).

In addition, once people started to live in more dense concentrations, many other "crowd-infectious" dis-

eases could assume epidemic proportions: cholera, typhus, bubonic plague and many more. OK, we have got them licked now, but they were a terrible affliction for farming societies right up until recent years.

Our Ancient Heritage

The Human Zoo

Judith Heerwagen is such an architect. In the architects' bible, "Whole Building Design Guide" she sets out²⁶ a range of criteria that planners should try to respect. They include such matters as a sense of "prospect and refuge" where "both indoor and outdoor spaces offer protection at the back and overhead with views into adjoining spaces". She is inspired by the way human psychology was formed on the African savanna.

Tribal humans like to sit with their backs to an overhanging tree – presumably a survival mechanism to avoid a predator or enemy surprising them from behind. People who did not care about such things did not survive in the same numbers, so genes sitting in them did not get transmitted into the next generation.

We can see this today: go to a restaurant and you will see lone diners, on the whole, choosing to sit with their backs to the wall facing the center of the room, not the other way around.

Heerwagen also says that surveys show that people like settings with

soft, rounded forms and irregular layouts. In contrast, they especially disliked vast, empty institutional spaces with minimal décor.

All this sounds quite reasonable and hardly necessary to say so. Nevertheless, we are only now emerging from the faddish brutalist theories of the 1960's. Municipalities are still demolishing the soulless Stalinist-style slab housing blocks of the 1960's which did so much to dehumanize the lives of their occupants.

In other words, many of us are living our lives like those neurotic caged animals. We will all feel better if our surroundings provide certain basic needs programmed into us by our savanna heritage.

Upcoming Private Events

Over the next few months, Geoff will be speaking to private audiences in London, Paris and Cyprus. Those attending can contact us if they wish for more details.

Upcoming Community Event

Geoff Bond gives an illustrated talk to Friends and Cancer Survivors:

Fear not Cancer: Revolutionary Insights for Avoidance and Recovery.

Date: February 3rd 2006.

Time: 6:30 p.m.

Olympus Hotel, Paphos, Cyprus.

Information: Nicole 99 43 73 28 and:

info@naturaleater.com

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