

Coda 1: Understanding What's Wrong by Looking at What Has Changed

One simple way to identify what is wrong is to look at what has changed since our girths began expanding at an ever-escalating rate. Herewith, my take on the more significant of these changes and their nefarious effects, along with some connect-the-dots observations. FIRST: All food was once organic. Originally it was assumed that organic food was better for the environment and individual farmers but otherwise the same as that produced by modern agribusiness methods. Recent studies that have focused solely on nutrient levels have put the lie to that. For example, eggs from free-range hens have been found to contain up to 30 percent more vitamin E, 50 per cent more folic acid, and 30 per cent more vitamin B-12 as well as more carotene than factory produced eggs. Feedlot cattle produced beef lower in vitamins E, A, D, and beta-carotene and higher in fat than grass fed beef, nutrient profiles that have also been documented in milk, butter and cheese. Comparisons of 2004 data from the USDA's National Nutrient Database with the same data in 1975 found almost universally lower levels of vitamins and minerals in today's foods. Analysis of this data for a dozen vegetables showed that calcium had fallen an average of 26.5 percent, vitamins A and C dropped 21.4 and 29.9 respectively, and iron plummeted an average of 36.5 percent. A similar 1997 study done in England found that levels of eight essential minerals had all declined in 20 fruits and 20 vegetables over the last 50 years while water content increased.

The latter observation is part of the explanation for these nutrient distinctions. Nonorganic farming methods use chemical nitrogen fertilizers, which are highly soluble. There is much less emphasis on soil quality, and the nitrogen is easily washed out of these poorly mulched, un-amended soils. The non-organic approach is to get high yields by simply adding more nitrogen, often more than the plants actually need. While this heaped-on nitrogen stimulates quick growth and produces big crop yields, numerous studies have shown that it does so by causing the fruits and vegetables to take up more water. In other words, such crops are big because they're more diluted with water. This same dilation reduces nutrient levels. Vitamin C is particularly impacted by high nitrogen growing techniques. Reduced concentrations of vitamin C have been found in such diverse agrbiz crops as lettuce, beets,

endive, kale, Brussels sprouts, apples, oranges, lemons, cantaloupe, potatoes, and tomatoes.

In contrast, organic farming uses slow-release natural fertilizers, which the plants take up as needed. The fruits and vegetables so produced are smaller but more nutritionally dense. In fact, scientific studies have found up to 5 times more anti-oxidants and flavonoids per unit of calorie in these smaller, organically grown fruits and vegetables. Yes, they cost more, but are you trying to buy food or colorfully packaged water? Actually, in time honored economic terms like cost to value ratios and the hidden costs of environmental pollution, organic food is cheaper.

Another significant factor fueling these distinctions is almost certainly the soil itself. Organic farmers constantly mulch and amend the soil with compost. They work to support the complex natural relationships between crop roots, soil microbes, and minerals, relationships far from being fully understood scientifically. Profit motives cause agribusinesses to try to make an end run around these relationships with unknown-filled techniques like genetic engineering.¹ We have already seen how very many nutrient and mineral levels are impacted by the soil in which plants are grown or on which animals are grazed. A cursory review would have to include omega-3 fatty acids, anti-oxidants, flavonoids, boron, chromium, fluoride, manganese, molybdenum, selenium, and vanadium.² Undoubtedly, there are more.

In the meantime USDA studiously avoids any nutrient comparisons between organic and non-organic foods as too politically hot to touch – agribiz is a major and very powerful special interest. Nevertheless, a 1992 USDA report did estimate the potential health benefits if everyone in the U.S. ate a diet containing the recommended daily amounts of primary nutrients. It projected:

- 1 A 20 percent reduction in cancer
- 2 A 25 percent reduction in heart and vascular conditions
- 3 A 50 percent reduction in arthritis
- 4 A 20 percent reduction in respiratory and infectious diseases
- 5 A 50 percent reduction in infant and maternal deaths³

Enough said. SECOND: People raised much of their own food, often slaughtering the animals they ate themselves. This was true even 60 years

ago when virtually everyone with a scrap of soil had a victory garden. Post World War II baby boomer me grew up watching my diminutive grandmother calmly wring one of her dearly loved and carefully tended chicken's neck for Sunday dinner, an extremely graphic experience indelibly impressed in my memory. Nowadays the food chain is scrupulously sanitized and deliberately kept as far removed from personal experience as possible. A cavalier and blithely ignorant population has emerged: "I don't want to know anything about it." Yet this same population, if the excruciating dissections of the 2004 presidential elections are remotely accurate, professes to be more concerned about 'moral values' (and their assumed decline) than anything else.

Morals are not something you can cherry-pick to suit yourself although certainly it is ineffably human to try. The animal and natural worlds do not exist in some isolated reality exempt from moral proscriptions. If you intend to eat them, you should fully understand what is being done to living, sentient creatures in your name. You should know the moral cost because it is just as real as the economic one. You should tour a factory farm and a slaughterhouse. If you cannot master the logistics and summon the courage to be in these hellholes in person (I certainly couldn't.), read [Portrait of a Burger as a Young Calf](#) by Peter Lovenheim follows two calves from the farm where they are born through every step of their lives until they become hamburgers. [The Meat You Eat](#) by Ken Midkiff examines corporate farming techniques in pig, poultry, milk, beef, and fish concerns in precise detail.

The prevailing isolation from and ignorance about the food chain of at least the last three decades is a classic ostrich response. It should be noted that when your head is warmly and blindly buried in the sand, your ass is extremely exposed. Get to know your food chain as well as your food chain knows you. Get to know your food chain lest you find that your food chain has taken a big and most unwelcome bite out of your ass. **THIRD:** People cooked rather than relying on pre-fab meals. Yes, it's more trouble. Yes, its demands still fall inequitably on women, including washing up, women often further burdened by jobs outside the home (Yes, this inequity must change.). But are you trying to feed and nurture your family or stuff them with some nutrient-lean pap that temporarily quells hunger but does little else? More horrific to contemplate, are you trying to nourish or to sow incipient seeds for cancer, an auto-immune disorder, or some other grisly and all too prevalent modern disease?

A study by the National Bureau of Economic Research finds that as much as a third of the growth in childhood obesity (the percentage of obese children has tripled in the past two decades) correlates to the rise in average

hours worked by mothers.⁴ Because of the amplified emphasis on protein as the most important nutrient as well as a market-induced oversupply of cheap protein foods, this translates on an everyday basis into: Throw a steak at them; that'll keep the dogs at bay.

Fast food is part of this configuration. According to the Census of Retail Trade, the national per capita number of fast food restaurants has increased by more than 100 percent since the early 1970s. Fast food is extremely palatable, densely caloric, and it pushes protein at every turn. These qualities, along with its high saturated fat content, make it very addictive and very fattening. The same Bureau of Economic Research study just mentioned finds that the per capita increase in these restaurants accounts for as much as two-thirds of the increase in obesity since 1980. Especially with their penchant for 'super-sizing' but also with their emphasis on lots of protein, these restaurants and ubiquitous food advertisements that have accompanied them have been a major factor in seriously changing the ordinary person's perception of what is normal, necessary, and acceptable.⁵ FOURTH: Overeating is now common, even the norm. While I cannot explain fully the precise interplay between chronic nutrient deficiencies and malfunctioning appetats, I am sure there is one. As a species, we are programmed to seek. Our minds seek spiritual enlightenment, enhanced insight, moral rectitude, and meaningful work. Our hearts seek love, communal belonging, and enriching relationships. Our bodies seek biochemical balance. Addictions are addictions because they short circuit biochemical pathways to create instant rewards (otherwise known as 'highs') that are temporary and thus incessantly demanding.

On a day-to-day basis, you are largely unaware of the myriad nutrient, vitamin, and mineral balances your body is juggling. Your body is never unaware of them. If you are overeating, there is a chemical imbalance it is seeking to right. Or there is an emotional longing it is seeking to fill – the appetatic and emotional overlaps in the brain are equally inexorable.

If you recall the numerous nutrients removed or diminished by modern food processing and refining techniques or the distortions in the ratio of omega-6 to omega-3 fatty acids or the calcium/phosphorus imbalances now so prevalent (largely discussed in Chapter 19), you can see how this translates biochemically into incessant longing. And for all our often Herculean efforts at asceticism, we are also programmed to seek satisfaction.

By way of review, nutrients affected by modern processing techniques and refined foods include:

1. Copper, essential for normal metabolism, anti-oxidant action, making hemoglobin, healthy bones, joints, skin and blood vessels as

well as immune and nervous systems, is lost in highly refined diets.⁶

2. Chromium, essential for normal sugar and fat metabolism, is almost completely removed by food processing and refining. Nevertheless, a diet high in such foods still requires chromium for metabolism thus depleting the body's stores even more. On the other hand, cooking in stainless steel pots⁷ adds dietary chromium if the food is acidic and hard water can, too.

3. Magnesium, vital to energy production and transfer, in protein and carbohydrate metabolism, for transporting substances across cell walls and manufacturing genetic material, and to a healthy heart, bones, muscles, and blood vessels, is almost totally removed by flour refining, rice polishing, and sugar extraction from molasses. Modern food production techniques have reduced average⁸ magnesium intake from 400mg to 300mg per day in the last 70 years.

4. Manganese, required for energy production, for the anti-oxidant enzyme superoxide dismutase, for 300 protein metabolism, bone formation, and a healthy nervous system, is reduced by as much as 86 percent in refined flour and 89 percent in refined sugar.⁹

5. Potassium, vital to bodily water and acid/alkali balance, muscle contraction, protein, carbohydrate, and energy metabolism, nerve impulse transmission, and a healthy heart and blood vessels, is easily lost in cooking and processing foods. Typical Western diets are low in potassium relative to sodium, a profile population studies have linked to high blood pressure and death from stroke. No U.S. RDA has been set for potassium although 2000mg a day is the estimated minimum requirement for good health. Contrast this with the suspected typical intake of the average American: between 800 and 1500mg a day.¹⁰

6. Selenium, essential to the anti-oxidant enzyme glutathione peroxidase, which protects against cell damage, to hormone production, and to healthy immune and cardiovascular systems, can be removed by food processing.¹¹

7. Zinc, vital to energy and hormone production, the manufacture of genetic material, normal growth and development, the detoxification of chemicals like alcohol, healthy brains, bones, teeth, and skin as well as immune and reproductive systems, is removed from flour when it is refined by 77 percent, from rice by 83 percent, and by processing cereals from whole grains by 80 percent. In some studies, calcium¹² supplements have reduced zinc absorption by as much as 50 percent.

8. Silicon, suspected as essential to healthy bones, cartilage, and connective tissue as well as the elasticity of arterial cell walls, is easily lost in food processing.¹³

9. Essential fatty acids, vital for energy production, forming cell membranes, transferring oxygen from air to blood, manufacturing hemoglobin and prostaglandins which are involved in many body processes including heart, lung, and immune functions and regulating inflammation, have had their dietary distribution seriously distorted by modern food production techniques and corn oil saturated fast food. Healthy populations consuming traditional diets eat omega-6 and omega-3 fats in ratios ranging from 5:2 to 1:6. Modern Western diets have omega-6 to omega-3 ratios of around 20 to 1.¹⁴

10. Calcium and phosphorus, which balance each other and work together in many body functions, should ideally be eaten in a ration of 1 to 1. The average American diet contains twice as much phosphorus as needed, with a ratio of calcium to phosphorus more like 1 to 2. Food additives can add 30 percent to dietary phosphorus intake and phosphoric acid-rich soft drinks are a major part of this excess. Besides preventing the absorption of iron, magnesium, and zinc and lowering vitamin D levels, this excess phosphorus is a major factor in promoting osteoporosis and cancer.¹⁵

11. Cooking in cast iron pots, which can increase the iron level in food as much as 20 times, has been replaced by the use of aluminum, stainless steel, and plastic ones. I believe this dietary iron reduction has been more than off-set by the huge emphasis on iron-rich flesh foods like meat, and for average American eaters, I think excess iron is more likely to be a problem. But as a vegetarian, I cling to my cast iron pots and cook in them constantly. Besides iron, they add a lot of flavor to food.¹⁶

12. Excess protein intake, linked so often to calcium excretion, also promotes¹⁷ the excretion of essential minerals like the many enumerated above.

Conversely, as these and other nutrients go missing, reflect a little once more (beyond your certain empirical experiences among friends and family) on what has turned up:

Autoimmune disorders are skyrocketing. Just one form, inflammatory bowel disease, is increasing steadily in Western cultures yet remains virtually unknown in countries where people eat less refined foods. Japan is a country that has been copying Western eating with a vengeance over the past decade or

so. This has especially translated practically into eating more fat and omega-3 fatty acid deficiencies. Milk drinking has also acquired cultish status. Now Crohn's disease, once unheard of in Japan, is escalating rapidly.¹⁸

Senile dementia is common, with Alzheimer's disease alone the fourth leading cause of death in the U.S.A., affecting 1 person in 3 over the age of 80. Yet, my 75 year old husband had 3 grandparents who lived well into their 90s with no mental impairment. Dementia is not a natural result of the aging process! An on-going study at Case Western University comparing people with and without Alzheimer's has found that the 'withouts' consume significantly more fruits and vegetables in general and antioxidants and vitamin C in particular.¹⁹

There is another dietary side to this dementia picture unrelated to nutrient deficiencies but still very connected to what has been eaten. Autopsy studies done at Yale University and elsewhere have found that up to 20 percent of those diagnosed with Alzheimer's actually had another brain-wasting disease, Creutzfeldt-Jakob Disease. There are different variants of CJD and the dead are, well, dead, so it's difficult to say absolutely but these misdiagnosed Alzheimer's cases could very well have been killed by eating mad-cow infected meat years earlier.²⁰ You know, the mad-cow disease we don't have in the U.S.A.

Not to mention our now constant cultural companions, heart disease, cancer, diabetes, and obesity. FIFTH: People ate food; now they pop pills. William Osler known as the most brilliant teacher of medicine in his time (1849-1919), author of a very influential medical textbook, and one of the four founders of famed Johns Hopkins Hospital and Medical School, said, "The desire to take medicine is perhaps the greatest feature that distinguishes man from animals." I have already gone on record as advocating a return to the more naturalistic and easy-going ways of our animal friends. Nowadays, analyzing what we eat and why and when we should eat it and then designing and selling a pill to cover all these bases is a Fortune 500 industry of its own. Nevertheless, the synergies in food have served the human race for eons and those synergies are far from being fully – or even well – understood. It has been popular to assume that a few pills here and there, while they might in the end only create enriched urine, certainly couldn't hurt. But two dramatic recent examples of supplement fads gone awry have exposed this nonchalance as folly, if not worse.

One involves vitamin E, which has been hyped through the years for just about everything, including protection against heart disease, cancer, Alzheimer's, and promotion of a better sex life. An exhaustive review of 19

different studies involving 136,000 patients found that those taking 400 international units of E or more a day (the amount in most E supplements) had a 5 percent higher risk of dying from any cause than those taking none.²¹

The second concerns vitamin A in its retinol form which is a major component of most supplemental A pills including multi-vitamins (you will find most of these now list the percentage from retinol or beta-carotene, which is not harmful.). Vitamin A from retinol has been found to weaken bones, especially in levels above 3000

I.U. a day.²² I feel certain more instances will be identified where supplements, in stark contrast to their rosy promises, are downright dangerous.

But there's yet another facet to this pill-popping nonsense. There are no regulations regarding the shipment of these concoctions, whether to wholesalers, pharmacies, or health food stores. Most travel in unrefrigerated vehicles, a situation that can easily result in long periods at temperatures exceeding 100 degrees. This is well above the general recommendations for storage at room temperature. Although probably not as harmful, they can also be spending long periods at temperatures well below room temperatures. The supplements you take may not in fact be the supplements companies make; they may have degraded into something else, permutations that may or may not be innocuous.²³ SIXTH: People ate; now they diet. 2004 stats say one in five Americans is on a diet; in 2003, one in three were. Current dieters claim they are trying to lose around 38 pounds. Whether or not they have 'bought' a proposed dieting strategy, one in three Americans would like to drop 50 pounds or more.

In the last two years, 39% of Americans have purposefully pushed through the revolving diet door to try the Atkins Diet, 23% signed on to Weight Watchers, and 12% pinned their hopes on the South Beach Diet.²⁴ Each successive diet fad promises to be the 'new' and definitive answer to the corpulence conundrum. In reality, however, all these various approaches have been cycling into and out of favor for a surprisingly long time and with amazing regularity.

The 'new' low-carbohydrate, high-protein approach has had an astonishing number of reincarnations. Its original promoter was a London undertaker (should we regard this as a 'sign?') named William Banting whose 1864 best selling book, Letter on Corpulence advocated a high protein regimen and made "banting" the foremost weigh-loss strategy of 1880s America. By 1918, calorie counting was the rage, popularized by Diet and Health With a Key to the Calories by Dr. Lula Hunt Peters. Take Off Pounds

Sensibly, the first national group dieting organization, showed up in 1948 (12 years before Overeaters Anonymous, 13 years before Weight Watchers) with Esther Menz urging calorie counting, watching scales, food diaries, and mutual support. These more moderate approaches gave way in 1961 to a high-fat, high-protein, low-carb regimen hyped by Herman Taller in Calories Don't Count and The Doctor's Quick Weight Loss Diet by Dr. Irwin Stillman. Low-carb diets got less austere later in the 60s with the publication of alcohol-friendly variations like The Drinking Man's Diet by Gardner Jameson and Elliott Williams and Martinis and Whipped Cream by Sydney Petrie. Dr. Robert Atkins first entered the arena with his meat and fat heavy, carbohydrate denouncing tome, Diet Revolution in 1972. In 1979, Nathan Pritiken gave the pendulum a 180 degree shove with the publication of Pritiken's Program for Diet and Exercise advocating a very low-fat diet. Still peddling the same eating approach, Dr. Atkins re-entered the fray in 1992 with Dr. Atkins' New Diet Revolution. The counterpunch came quickly this time: in 1993, Dr. Dean Ornish published Eat More, Weigh Less, a low-fat approach incorporating vegetarianism (but as I understand it, with fish). 1995 saw low-carbohydrate, high-protein diets take the stage again with a vengeance beginning with Barry Sears' The Zone, but including a claque of other carb-bashers such as Protein Power, Sugar Busters, and The Carbohydrate Addict's Diet. Dr. Atkins seeks to keep his clout by publishing a revised version of his book in 1999 that has helped to give the high-protein, low-carb approach the highest profile of current diet fads. Finally, in 2003, The South Beach Diet by Dr. Arthur Agatston appears, purporting to be a middle ground between the low-fat, high-carbohydrate recommendations of most mainstream nutritionists and low-carb, high-protein-fat Atkins-speak.²⁵

If you are feeling bombarded by dietary advice, I'd say you're entitled. Obviously, the very recent history of the human race has seen diets come and go and come again pretty much like the seasons. There has, however, been one constant: we have meanwhile gotten steadily, dramatically, and more universally fatter. Scientists are now beginning to agree that dieting itself is deadly. By teaching the mind to fixate on food and the body to then obediently overeat, it programs weight problems just as surely as you can load data into a computer.²⁶ Recent pediatric studies of obese children have confirmed this phenomenon. Dieting children experience harmful metabolic changes, become susceptible to binge eating – and in the long run, gain more weight.²⁷ As I have opined before, nothing attracts like the forbidden!

In the meantime, there is general agreement that, to really lose weight and to continue as a slimmer you, you have to make substantial and lasting

lifestyle changes. This book asks you to consider a new definition of the true fuel of human life, obviously a substantial lifestyle or at least mindset change. But make no mistake about it – it wants and expects you to eat and enjoy all kinds of foods – save flesh ones – all the time! SEVENTH: We are surrounded by a slew of new chemicals, many unknown even 30 years ago. While it is popular to assume that any product that enters the marketplace has been tested thoroughly for safety, that is a dangerous fairy tale. Money runs the marketplace, and any regulation it can sidestep or circumvent ups the profit margins. The political climate of the last decade has been to reduce regulation dramatically. As long as you keep buying, companies are not particularly concerned if you are also dying. Corporate lobbyists have wagered and largely won a sinister proposition: that you won't make a connection. All too often, government has been more interested in aiding and abetting the corporate good rather than the common good.

If you check out the FDA's own website, you will find that it is powerless to remove a cosmetic product from the market unless it first proves in a court of law that the product may injure users or is labeled incorrectly. The cosmetics industry has its own watchdog committee, the Cosmetics Industry Review (CIR), but it has no authority to force companies to comply with its recommendations. This has become a flashpoint for a number of environmental and health lobbying groups (check out www.SafeCosmetics.org) who are now working as a coalition to change this dangerous status quo. Part of this coalition, the Environmental Working Group (EWG), published a study called "Skin Deep" in June, 2004, that painstakingly details some 7,500 common personal care products and their often-untested ingredients. Of the 10,500 chemical ingredients documented, the study found that 89 percent had not been tested or evaluated in any way by the FDA or the CIR. More ominous, 54 chemicals were found that violate the CIR's own safe-use recommendations (would you call this a vote for self-regulation?). One chemical group, phthalates, has been linked to cancer, birth defects, and other health problems, yet is still found in everything from cosmetics to plastic wrap to shower curtains. Phthalic acid is used in the synthesis of dyes, perfumes, and other organic compounds despite the known risk. In the meantime, cancer, infertility, and birth defects are all on the rise.²⁸

Unfortunately, there are other examples. Everywhere you look these days, there are 'anti-bacterial' products. Some of these needlessly include the pesticide triclosan, which breaks down in the body to polychlorinated phenol. This class of chemicals has been ranked as a possible carcinogen by the International Agency for Research on Cancer.²⁹

Another case in point: John Travolta and his wife, Kelly Preston, found their 18 month old son, Jett, sick with a high fever that wouldn't abate for days 10 years ago. Only when Jett's fever spiked to a deadly 105 did his pediatrician finally diagnose Kawasaki Disease (KD), a rare illness in babies and young children that causes inflammation in blood vessels throughout the body. Rushed to ICU, Jett hovered between life and death for a tortuous day and a half. The exact causes of KD are unknown, so the Travoltas and other parents of KD patients were asked at the hospital to fill out surveys about their kids and homes. There was only one commonality: all parents had recently cleaned their carpets. This experience spurred Preston to start researching homes, toxins, and kids. Ultimately, she became an advocate, urging removal of all chemical cleansers from homes and joining the board of directors of the Children's Health Environmental Coalition (CHEC) in 2000. Preston's efforts have made her a hero to grateful parents. One ecstatic mother found that her daughter's asthma disappeared once she had tossed out all the chemicals.³⁰

Finally, fish represent an ever-increasing opportunity for chemical contamination. The recent emphasis on fish as 'heart-healthy,' especially omega-3 fat rich salmon, has prompted an explosion in 'farm raising' fish. This means agribiz techniques have come to fish. Farm raised salmon and other fish live in teeming pens. They are doused with pesticides to combat the unhealthiness of the over-crowding. They are fed diets laced with antibiotics and other contaminants. The salmon are dyed pink to resemble their wild relatives although their living conditions make them naturally a ghostly gray. Extremely high levels of PCB's, the now banned residue from transistor manufacturing that used to be routinely dumped into waterways, have been identified in such fish.³¹ The same goes for the fire retardant PBDE.³² Both of these are potential, if not definitive, carcinogens. And, of course, there's our old nemesis, mercury. Scientists have known for years that there were dangerous levels of mercury in popular fish like swordfish and tuna, but the U.S. government did not issue a warning about mercury until December, 2003 – and then only for children, nursing mothers, and those pregnant or hoping to be.³³ The mercury problem is escalating because it is a big and largely unregulated part of the emissions from coal-fired electric plants. The mercury pollutes the atmosphere first and then gets washed by rain into the waterways and oceans to contaminate the fish food chain. It's also part of the waste dumped by offshore drilling rigs. EIGHTH: People used glass containers rather than plastic. If you pay close attention, you will notice that drinks from plastic bottles taste different from those in glass. Researchers are beginning to report that chemicals in plastic can migrate into food and drinks although,

of course, the plastics industry maintains there is no problem.³⁴ The more stretchy and clingy the plastic (like plastic wraps), the more “plasticizers” it contains. Even the plastics industry acknowledges the instability of these and advises using them with care. One such plasticizer, DEHA, is especially problematical and has been linked to hormonal changes in animals. The FDA’s position on this issue is that the amount of plasticizers that likely migrate into food is safe.³⁵ I, however, am not comfortable with the idea of any plastic molecules inside my body, much less regular exposure to them. NINTH: People ate big breakfasts and noon meals and ended the day with a light supper. This was the ordinary American way of eating during my early childhood (when I walked home from school at noon to have ‘dinner’ with my grandmother), and it is still standard practice in Europe and much of Latin America. Very recent research has indicated that when more calories are eaten in the morning, the caloric intake for the entire day is less. The converse is also true: a light or skipped breakfast and/or a missed lunch with a large evening meal results in more daily calories consumed. The reasons for this are still obscure although researchers suspect the appetat’s satiety clues may be more sensitive early in the day.³⁶ I would be more inclined to think that the latter scenario, with its ongoing hours of inadequate fuel notwithstanding a day’s worth of energy demands, causes the appetat to become more and more frantic and finally, to program overeating.

You probably aren’t going to be able to talk your employer into a two hour lunch and siesta a la’ European style, but a big breakfast is an old fashioned yet still good idea. And a skipped meal never is!

Footnotes: Coda 1: Understanding What’s Wrong by Looking at What Has Changed

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Personal Notes