Atkins Facts
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Reprinted from Dr. Greger's free monthly newsletter:
Latest in Human Nutrition, June 2004 (Vol. 2 Issue 6)

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What the Experts Think of Atkins

**Atkins "Nightmare" Diet**

When Dr. Atkins Diet Revolution was first published, the President of the American College of Nutrition said, "Of all the bizarre diets that have been proposed in the last 50 years, this is the most dangerous to the public if followed for any length of time."[1]

When the chief health officer for the State of Maryland,[2] was asked "What's wrong with the Atkins Diet?" He replied "What's wrong with... taking an overdose of sleeping pills? You are placing your body in jeopardy." He continued "Although you can lose weight on these nutritionally unsound diets, you do so at the risk of your health and even your life."[3]

The Chair of Harvard's nutrition department went on record before a 1973 U.S. Senate Select Committee investigating fad diets: "The Atkins Diet is nonsense... Any book that recommends unlimited amounts of meat, butter, and eggs, as this one does, in my opinion is dangerous. The author who makes the suggestion is guilty of malpractice."[4]

The Chair of the American Medical Association's Council on Food and Nutrition testified before the Senate Subcommittee as to why the AMA felt they had to formally publish an official condemnation of the Atkins Diet: "A careful scientific appraisal was carried out by several council and staff members, aided by outside consultants. It became apparent that the [Atkins] diet as recommended poses a serious threat to health."[5]

The warnings from medical authorities continue to this day. "People need to wake up to the reality," former U.S. Surgeon General C. Everett Koop writes, that the Atkins Diet is "unhealthy and can be dangerous."[6]

The world's largest organization of food and nutrition professionals,[7] calls the Atkins Diet "a nightmare of a diet."[8] The official spokesperson of the American Dietetic Association elaborated: "The Atkins Diet and its ilk--any eating regimen that encourages gorging on bacon, cream and butter while shunning apples, all in the name of weight loss--are a dietitian's nightmare."[9] The ADA has been warning Americans about the potential hazards of the Atkins Diet for almost 30 years now.[10] Atkins dismissed such criticism as "dietician talk".[11] "My English sheepdog," Atkins once said, "will figure out nutrition before the dieticians do."[12]

The problem for Atkins (and his sheepdog), though, is that the National Academy of Sciences, the most prestigious scientific body in the United States, agrees with the AMA and the ADA in opposing the Atkins Diet.[13] So does the American Cancer Society[14] and the American Heart Association[15] and the Cleveland Clinic[16] and Johns Hopkins;[17] and the American Kidney Fund[18] and the American College of Sports Medicine[19] and the National Institutes of Health.[20]

In fact there does not seem to be a single major governmental or nonprofit medical, nutrition, or science-based organization in the world that supports the Atkins Diet.[21] As a 2004 medical journal review concluded, the Atkins Diet "runs counter to all the current evidence-based dietary recommendations."[22]

A 2003 review of Atkins "theories" in the Journal of the American College of Nutrition concluded: "When properly evaluated, the theories and arguments of popular low carbohydrate diet books... rely on poorly controlled, non-peer-reviewed studies, anecdotes and non-science rhetoric. This review illustrates the complexity of nutrition misinformation perpetrated by some popular press diet books. A closer look at the science behind the claims made for [these books] reveals nothing more than a modern twist on an antique food fad."[23]

**Dr. Atkins had a Dream**

There is nothing new or revolutionary about Dr. Atkins New Diet Revolution. Various high-fat diet fads like Atkins have been masquerading under different names for over a hundred years, starting in 1864 when an English undertaker and coffin maker by the name of William Banting wrote a book called Letter on Corpulence.[24] Based on what we know now about these diets, Banting's book may very well have added to Banting's business.

After failing to produce the promised sustained weight loss, the high-fat fad melted away only to re-emerge in the 1920's with a doctor advocating a minimum of three porterhouse steaks a day and stating that the only two perfect foods were probably "fresh fat meat and water."[25] It then disappeared until the 1940's with a book extolling the virtues of eating whale blubber. Then it was recycled again in the 1960's with Dr. Herman Taller's bestseller "Calories Don't Count" that discouraged people from exercising. "By whatever name," one nutrition textbook reads, "the diet is to be avoided."[26]
Taller's "Calories Don't Count" diet empire collapsed when he was found guilty of six counts of mail fraud for using the book to promote a particular brand of safflower capsules, which the court called a "worthless scheme foisted on a gullible public."[27]

That same year, Dr. Irwin Stillman wrote the "Doctor's Quick Weight Loss Diet," allowing his patients to eat only meat, eggs, and cheese. Stillman himself died of a heart attack, but not before misleading 20 million people onto his diet.[28]

One might wonder why, if this kind of diet was such a "foolproof"[29] "ultimate"[30] path to "permanent joyful weight loss" that "WORKS 100% OF THE TIME!" (emphasis in original)[31] they seemed to always quickly fade into obscurity, only to be resurrected shortly after by publishers guaranteed a new bestseller by America's short attention span. This brings us to 1972, and the publication of Dr. Atkins Diet Revolution.[32]

Atkins' diet was centered on fried pork rinds, heavy cream, cheese, and meat. For Atkins, bacon and butter were health foods and bread and bananas were what he called "poison."[33]

Drawing on his experience as a salesman and resort entertainer, Atkins proved a natural at self-promotion. He was featured in Vogue magazine (and hence the Atkins Diet was actually first known as the "Vogue Diet") and soon after evidently appeared on the Tonight Show[34] and Merv Griffen.[35] In 1973, the publisher boasted that it became the "fastest selling book in publishing history."[36]

The final chapter of Dr. Atkins Diet Revolution was entitled "Why We Need a Revolution...." It detailed his proposal to have some carbs literally banned. "Our laws must be changed to provide a proper way of eating for everyone." He urged everyone to start lobbying their legislators. "Political action and protest on your part," he wrote, "can help revolutionize the food industry, by forcing it to decarbohydrate many foods ... with a federal law to back this change!"[37]

"Martin Luther King had a dream," Dr. Atkins wrote, "I, too, have one."[38]

"The Diet Fad of the 21st Century"

Allowing a good 20 years for dieters to forget Dr. Atkins past failure, the book was reissued as Dr. Atkins New Diet Revolution (though there was not much new about it) in 1992.[39] Along with other retro 70's fashions, and this time backed by an aggressive marketing campaign, it became the best-selling fad-diet book in history[40] achieving "fashion-cult status amongst society figures."[520]

What may have truly made it "The Diet Fad of the 21st Century" (as an editor of the Journal of the American Dietetics Association coined it)[41] came a decade later with the publication of the infamous pro-Atkins New York Times Magazine article "What If It's All Been a Big Fat Lie."[42] Atkins quickly wrote an editorial for his Web site claiming the article "validated" his work. Gushingly favorable follow-up stories appeared on NBC's Dateline, CBS' 48 Hours, and ABC's 20/20. The Atkins corporation claimed literally billions of media hits.[43] By the time the article's many flaws were exposed weeks later, the book had already catapulted to #1 on a New York Times bestseller list and Atkins' net worth zoomed to $100 million.[44]

The piece was written by freelance writer and Atkins advocate[45] Gary Taubes (who reportedly scored a book deal from it--and a $700,000 advance).[46] The Washington Post investigated his pro-Atkins article and found that Taubes simply ignored all the research that didn't agree with his conclusions.

Taubes evidently interviewed a number of prominent obesity researchers and then twisted their words. "What frightens me," said one, "is that he picks and chooses his facts.... If the facts don't fit in with his yarn, he ignores them."[47]

The article seemed to claim that experts recommended the diet. "I was greatly offended at how Gary Taubes tricked us all into coming across as supporters of the Atkins Diet," said John Farquhar, a Professor Emeritus of Medicine at Stanford. When the Director of the Center for Human Nutrition at the Washington University School of Medicine was asked to comment of one of Taubes' claims, he replied, "It's preposterous."[48]

"He took this weird little idea and blew it up," said Farquhar, "What a disaster."[49]

"The article was written in bad faith," said another quoted expert. "It was irresponsible."[50] "I think he's a dangerous man. I'm sorry I ever talked to him." Referring to the book deal, "Taubes sold out."[51]

What the researchers stressed was how dangerous saturated fat and meat consumption could be, but Taubes seemed to have conveniently left it all out. "The article was incredibly misleading," said the pioneering Stanford University endocrinologist Gerald Reaven who actually coined the term Syndrome X. "I tried to be helpful and a good citizen,"
Reaven said, agreeing to do the interview, "and I ended up being embarrassed as hell. He sort of set me up... I was horrified."[52]

**The South Beach Diet: All Wet**

The majority of the best-selling diet titles in history have been sold during just the last 5 years.[53] One of the latest steak oil salesmen is Dr. Agatston, whose South Beach Diet appeared a year after Atkins' latest and sold its first million copies in just 2 months.[54] Currently, subscriptions to his website alone bring in a million dollars a week.[55]

The Tufts University Health and Nutrition Letter weighed in on the South Beach Diet in their May 2004 issue: "Disappointingly, the South Beach Diet is simply yet another version of a fad wrapped within a gimmick." They concluded that it was "based on fallacies... replete with faulty science, glaring nutritional inaccuracies, contradictions, and claims of scientific evidence minus the actual evidence."[56]

The article notes, "The faulty and confusing science is compounded by The South Beach Diet's own internal inconsistencies."[57] Up front, for example, the author says that his diet doesn't depend on exercise, but then goes on to tell people to get 20 minutes a day.[58] He tells readers to avoid bananas in "phase 2"; then goes on to recommend: bananas dipped in chocolate sauce. He says up front that the diet is "distinguished by the absence of calorie counting or even rules about portion size" and that one shouldn't "even think about limiting the amount you eat." He then, of course, proceeds to count calories and measure out servings every step of the way, even to the point of specifying "I recommend counting out 15 almonds or cashews."[59] That sounded like a rule about portion size to the reviewers.

Tufts lists a few of the "out-and-out food and nutrition inaccuracies" in The South Beach Diet:[60] Agatston says that whole-wheat bread is not whole grain, but cous cous is (actually the reverse is true). He claims watermelon is full of sugar but cantaloupe is not (they have the same amount). For a cardiologist who claims, "I feel nearly as comfortable in the world of nutrition as I do among cardiologists,"[61] Dr. Agatston "sprinkled an awful lot of nutrition gaffes throughout his book."[62] He claims eggs have minimal saturated fat--wrong. Each egg can have as much as 2 grams,[63] giving some of his recipes over a third of one's daily limit.[64]

To be fair, though, he does frown on lard, although the Atkins corporation is quick to point out that the South Beach menus do not have significantly less saturated fat than Atkins.[65] Just as Atkins himself claimed he followed his diet for decades yet, according to his own cardiologist, was overweight,[66] Agatston revealed that he needs to take medication to lower his cholesterol.[67] Agatston, at least, doesn't call fruit "poison."[68]

**Faulty Science**

**Phony Baloney**

One of Dr. Atkins' dreams probably came true--he likely became a billionaire before he died. The Atkins corporation is now estimated to be worth billions of dollars.[69] In Family Practice News, one doctor writes, "Unfortunately, Dr. Robert C. Atkins, who made a lot of money playing on the ignorance of Americans, knew about as much about nutrition as an Arkansas hog knows about astronomy."[70]

Of course, pigs--in Arkansas and elsewhere--have presumably little use for astronomy. It doesn't seem like too much to ask, however, that cardiologists like Dr. Atkins know something about nutrition.

The entire theoretical framework of low carb diets, like Atkins and The Zone, hang upon the notion that insulin is the root of all evil and so to limit insulin release one needs to limit carbohydrate intake. Dr. Atkins, for example, has a chapter entitled "Insulin--The Hormone That Makes You Fat,"[71] Protein Power calls it the â€œmonster hormone,â€[487] and the author of the Zone Diet calls insulin "the single most significant determinant of your weight."[72]

What they overlook is that "protein- and fat-rich foods may induce substantial insulin secretion" as well.[73] Research in which study subjects served as their own controls, for example, has shown that under fasting conditions a quarter pound of beef raises insulin levels in diabetics as much as a quarter pound of straight sugar.[74]

Atkins' featured foods like cheese and beef elevated insulin levels higher than "dreaded" high-carbohydrate foods like pasta. A single burger's worth of beef, or three slices of cheddar, boosts insulin levels more than almost 2 cups of cooked pasta.[75] In fact a study in the American Journal of Clinical Nutrition found that meat, compared to the amount of blood sugar it releases, seems to cause the most insulin secretion of any food tested.[76]

Low carb advocates like Atkins seem to completely ignore these facts. Recent medical reviews have called Atkins' feel-good theories "factually flawed"[77] and "at best half-truths."[78] "In the scientific world, books like the Zone Diet are generally regarded as fiction," one reviewer wrote in the Journal of the American College of Nutrition. "The scientific
According to a 2003 article in the Journal of the American Medical Association, “Dr. Atkins and his colleagues selectively recite the literature” to support their claims.[81] When researchers take the time to actually measure insulin levels, for instance, instead of just talking about them like Atkins does, they often find the opposite of what Atkins asserted.

A study done at Tufts, for example, presented at the 2003 American Heart Association convention, compared four popular diets for a year. They compared Weight Watchers, The Zone Diet, the Atkins Diet (almost no carbs), and the Ornish Diet (almost all carbs) for a year. The insulin levels of those instructed to go on the Ornish diet dropped 27%. Out of the four diets that were compared that year, Ornish’s vegetarian diet was the only one to significantly lower the "Monster" “Hormone That Makes You Fat,” even though that's supposedly what Atkins and The Zone diets were designed to do.[82]

In another study researchers took over a hundred pairs of identical twins and found that the more fat they ate, the higher their resting insulin levels were. Even with the same genes, the study “showed a consistent pattern of higher fasting insulin levels with intake of high-fat, low carbohydrate diets.”[83]

Other studies show that a high (70-85%) carbohydrate diet (combined with walking an average of 15-30 minutes a day) not only can result in significant reductions in body weight, blood pressure, cholesterol and triglycerides, but significant drops in baseline insulin levels as well, exactly the opposite of what low carb pushers would predict. In just three weeks on a high (unrefined) carb vegetarian diet and a few minutes of daily walking, diabetics reduced the amount of insulin they needed and most of the pre-diabetics seemed cured of their insulin resistance.[84] In general vegetarians may have half the insulin levels of nonvegetarians even at the same weight.[85]

In an article entitled "Americans Love Hogwash," Edward H. Rynearson, Emeritus Professor of Medicine at the Mayo Clinic, singled out Dr. Atkins for dispensing hogwash he defines as “worthless, false or ridiculous speech or writings” and praised the AMA for “condemning this diet for its dangers.”[86] The “evidence” cited by Atkins has been called “nearly all anecdotal and misleading.”[87] Carbohydrate is a form of nutritional misinformation,” a 2003 review in the Journal of the American College of Medicine noted, “infused into the American psyche through... advertising... infomercials... and best-selling diet books.”[88]

“When unproven science becomes a sales pitch,” declared a spokesperson for the American Institute for Cancer Research about low carb diets, “some people get rich and the rest of us get ripped off.”[498]

We know that the Atkins Diet is successful--at making money. What about for weight loss? We know that cutting down on carbs will help people lose variety and nutrition in their diet,[89] and if they buy his supplements, their wallet may get slimmer, but what about their waistline?

Who cares if the American Medical Association calls Atkins's theory "naive," "biochemically incorrect," "inaccurate," and "without scientific merit?" Who cares if it "doesn't make physiological sense?"[90] The question is, does it work?

Losing (Water) Weight

Carbohydrates burn cleanly. In fact the name “carbo-hydrate” basically means "carbon (dioxide) and water," which is what plants make carbs out of, and which is all the waste product one is left with when one's body uses them as fuel. During the first few weeks of the Atkins Diet, the so-called “induction” phase, a person is forced to live off so much grease that, lacking the preferred fuel--carbohydrates--their body goes into starvation mode.

In biochemistry class, doctors learn that fat "burns in the flame of carbohydrate." When one is eating enough carbohydrates, fat can be completely broken down as well. But when one's body runs out of carb fuel to burn, its only choice is to burn fat inefficiently using a pathway that produces toxic byproducts like acetone and other so-called "ketones." The acetone escapes through the lungs--giving Atkins followers what one weight-loss expert calls "rotten-apple breath"[91]---and the other ketones have to be excreted by the kidneys. We burn fat all the time; it's only when we are carbohydrate deficient and have to burn fat ineffectively that we go into what's called a state of ketosis, defined as having so much acetone in our blood it noticeably spills out into our lungs or so many other ketones they spill out into our urine.

To wash these toxic waste products out of our system our body uses a lot of water. The diuretic effect of low carb diets can result in people losing a gallon of water in pounds the first week.[92] This precipitous early weight loss encourages dieters to continue the diet even though they have lost mostly water weight[93] and the state of ketosis may be making them nauseous or worse.[94] If one wanted to try to lose water weight, sweating it away in a sauna may be a more healthful way.

The Director of Yale University's Center for Eating and Weight Disorders explains the miracle formula used by diet books
to become bestsellers for over a century now: "easy, rapid weight loss; the opportunity to eat your favorite foods and some scientific 'breakthrough' that usually doesn't exist."[95] The rapid loss of initial water weight seen particularly on low carb diets has an additional sales benefit. By the time people gain back the weight, they may have already told all their friends to buy the book, and the cycle continues. This has been used to explain why low carb diets have been such "cash cows" for publishers over the last 140 years.[96] As one weight loss expert notes, "Rapid water loss is the $33-billion diet gimmick."[97]

**Calories Count**

When people do lose weight on the Atkins Diet after the first few weeks, it's almost certainly because they are eating fewer calories.[98] People lose weight on the Atkins Diet the same way they lost weight on the 1941 Grapefruit Diet, the 1963 Hot Dog Diet, the 2002 Ice Cream Diet and every other fad diet promising a quick fix—by restricting calories.

In 2001, the medical journal Obesity Research published "Popular Diets: A Scientific Review." Claiming to have reviewed every study ever done on low carb diets, they concluded, "In all cases, individuals on high-fat, low carbohydrate diets lose weight because they consume fewer calories."[99] Calories count—every time, all the time. "No magic ingredients, strange food combinations or pseudoscientific formulas will alter this metabolic fact."[100]

Dr. Atkins disagreed. In fact, he accused his critics of having "subnormal intellects" for even holding such a view.[101] For three decades he peddled his claim that people could eat more calories and still lose weight. Decrying what he called the "calorie hoax," Atkins had a chapter entitled "How to Stay Fat—Keep Counting Calories." Atkins even subtitled his book "The High Calorie Way to Stay Thin Forever." The Zone Diet made a similar claim on its back cover: "You can burn more fat by watching TV than by exercising."[102] (As one commentator exclaimed, "Goodness, what channel does he watch?"

Atkins claimed people could lose 85 pounds, without exercising, eating an incredible 5,500 calories a day.[104] The only problem, critics claimed, was that this ran counter to the First Law of Thermodynamics, considered to be the most fundamental law in the universe. No wonder the AMA scolded Atkins publishers for promoting "bizarre concepts of nutrition and dieting."[105]

"**Metabolic Advantage**" Advantageous Only in Selling Books

Atkins claimed that the key to the so-called "calorie fallacy" was that the missing calories were explained by the excretion of ketones. Dieters in ketosis, he argued, urinate and breathe out so many calories in the form of ketones that "weight will be lost even when the calories taken in far exceed the calories expended." He claimed dieters could "sneak" calories out of the body unused.[106]

The "Atkins Physician Council" also claims that one's body expends more energy burning fat and thus "You wouldn't have to increase your exercise at all because your body would be working harder, so that you could literally sit in your armchair and lose weight."[107] As the Secretary of the AMA's Council on Food and Nutrition tried to make clear, "The whole [Atkins] diet is so replete with errors woven together that it makes the regimen sound mysterious and magical."[108]

These claims sounded so far-fetched that as part of an investigative documentary, the BBC paid obesity researchers to design an experiment to test it. So researchers took two identical twins and put one on the Atkins Diet for a while, the other on a high carbohydrate diet and locked them both in sealed chambers to measure exactly where the calories were going. Did the twin on the Atkins Diet have any sort of metabolic "advantage" by burning fat and protein as his source of fuel? Was he literally flushing more calories down the toilet? Of course not. "We found no difference whatsoever," the researcher said.[109]

As the evidently "subnormal intellects" at the AMA concluded, "No scientific evidence exists to suggest that the low carbohydrate ketogenic diet has a metabolic advantage over more conventional diets for weight reduction."[110] The only comprehensive systematic review ever done of low carb diets found that the carbohydrate content of the diet seemed in no way correlated with weight loss.[111] The truth seems to be that nothing matters more than calories when it comes to weight loss.[112] According to the director of nutrition at the Center for Science in the Public Interest, "This whole ketosis thing is just a gimmick to make people think there's something to blame for weight gain and some magic solution to take it off. That's the beginning and end of it."[489]

But what about all the scientific studies Dr. Atkins cited in his book to back up his claims? Although his first book had essentially no citations, by the final edition he listed over 300.[113] Reviewing all of the studies on low carb diets, researchers concluded, "The studies by Atkins to support his contentions were of limited duration, conducted on a small number of people, lacked adequate controls and used ill-defined diets."[114] Most importantly, though, some of the very studies he cites actually refute exactly what he's claiming. And he accused the AMA of being "intellectually dishonest."[115]
Of the few studies that did back up his claims, some had seriously questionable validity[116] and researchers could not replicate the findings of the rest.[117-134] One review of studies that have defended Atkins claims concluded, “It turns out that when these data are critically analyzed they are often found to be in error, and it's therefore impossible to accept the validity of the conclusions derived by the authors from such erroneous data.”[135]

People lost weight on low carb diets the way everybody loses weight on any diet--by eating fewer calories.[136]

Low Calorie Diet in Disguise

The Atkins Diet restricts calories by restricting choices. If all one did was eat Twinkies, one could lose weight (unless one were able to consistently force oneself to eat more than a dozen a day). But would one's overall health be better or worse for it? In essence, the Atkins Diet is not much different than the Twinkie Diet.

Americans get half of their energy from carbohydrates,[137] so if people cut out half the food they eat, what they are left with is calorie restriction. Yes, one can eat unlimited amounts of fat on the Atkins Diet, but people typically can't stomach an extra two sticks of butter's worth a day to make up for the calorie deficit. Since so many foods are taboo, people end up eating less out of sheer boredom and lack of variety. As one obesity researcher put it, “If you’re only allowed to shop in two aisles of the grocery store, does it matter which two they are?”[138]

Yes, all the butter one can eat, but no bread to put it on. All the cream cheese, but no bagels. Sour cream, but no baked potato. Sandwich lunchmeat, but, of course, no sandwiches. All the pepperoni one can eat, but no pizza crust. Cheese, but no mac.

In later phases of the diet, with less carb restriction, Atkins throws in a thin wedge of cantaloupe--wrapped in ham, of course.[139] Having all the mayonnaise one can eat only goes so far.

On the Atkins Diet one can eat steak, but no potatoes--and watch the gravy (it may have corn starch in it). All the shortening one can eat, just no making cookies with it. Eat all the burgers one wants; you just can’t put them on buns, no fries--and “beware of ketchup.”[140]

Atkins described how to make cheeseburgers without the bun: “I put all the meat on the outside... put the cheese on the inside... The cheese melts on the inside and never gets out.”[141]

Although his recipe for “hamburger fondue,”[142] combining burger meat, blue cheese, and butter, might top the cheeseburger recipe for heart disease risk, the prize would probably go his recipe for “Swiss Snack,”[143] which consists of wrapping bacon strips around cubes of Swiss cheese and deep frying them in hot oil. The recipe, which supposedly serves one, calls for four strips of bacon and a quarter-pound of cheese.

Atkins rivals the creativity of the raw-food chefs of today in his uses for pork rinds. Pork rinds are chunks of pigsâ€™ skin that are deep-fried, salted and artificially flavored. He recommends people use them to dip caviar. Or, perhaps for those who can’t afford caviar, one can use fried pork rinds as a “substitute for toast, dinner rolls...You can use them as a pie crust... or even matzo ball soup (see our recipe on p. 190).”[144] Matzo balls made out of pork rinds?--now that is a diet revolution!

The Real Big Fat Lie

In Taubes’ article in the New York Times Magazine, he reiterated a myth common among Atkins and other greasy diet proponents.[145] “At the very moment that the government started telling Americans to eat less fat, we got fatter,” wrote Taubes.[146] He argues that since the percentage of calories from fat in the American diet has been decreasing, and the percentage from carbohydrates increasing, carbs are to blame for the obesity epidemic.[147]

Of course a quick trot across the globe shows that some of the thinnest populations in the world, like those in rural Asia, center their entire diets on carbs. They eat 50% more carbs than we do, yet have a fraction of our obesity rates.[148] Taubes also left out that the amount of added fat and total fat Americans eat has also been increasing--we’re eating more of everything now, fat and carbohydrates. Grease and protein peddlers blame our obesity epidemic on a low-fat diet that our nation never ate.

Thirty years ago, the average woman ate about 1500 calories per day, now it’s closer to 2000.[149] Men also significantly bumped up their calorie consumption. With that many extra calories, we'd have to walk about two extra hours a day to keep from gaining weight. As analyzed in the May 2004 USDA report on obesity, with more calories, yet the same sedentary lifestyle, of course we gained weight.[150]

The reason we’re fat is not because of bread and fruit. Much of the obesity crisis has been blamed on eating out more (Americans spend almost twice as much time per week eating out as exercising),[151] soft drinks, snacking, bigger portion
sizes and "the enormous amount of very clever and very effective advertising of junk food/fast food."[152] Our children, for example, are subjected to 10,000 ads for processed food every year.[153] There's no way parents can compete. As one medical journal pointed out, our children "will never see a slick high-budget (or even low-budget) ad for apples or broccoli."

Twenty years ago, a typical US bagel was 3 inches; now it's twice that and contains a whopping 350 calories.[154] Outback Steakhouse now has an appetizer of cheese fries, which breaks the scale at over 3000 calories, an appetizer containing more calories than most people eat all day. One would have to walk about 35 miles to burn that kind of thing off.[155]

The standard coke bottle used to be around 6 ounces. Then came the 12 ounce can. Now we have the 20 ounce bottles, or, of course, the 64-ounce "Double Gulp," containing about 50 spoonfuls of sugar. In fact, the Double Gulp is selling so well that 7-Eleven considered an even larger size, which a company spokesperson described only as a "wading-pool-sized drink."[156]

The National Soft Drink Association boasts on their website that "Soft drinks have emerged as America's favorite refreshment. Indeed, one of every four beverages consumed in America today is a carbonated soft drink, averaging out to about 53 gallons of soft drinks per year for every man, woman and child."[157] Interestingly, the introduction of high fructose corn syrup (primarily consumed in soft drinks)[1160] around 1970 seems to exactly parallel the sudden rapid rise in obesity in this country.[158] Thanks in part to the American food corporations, becoming overweight, as one prominent obesity researcher pointed out, "is now the normal response to the American environment."[159]

There is no mystery why we are the fattest country on Earth. "We're overfed, over-advertised, and under-exercised," says Stanford obesity expert John Farquhar. "It's the enormous portion sizes and sitting in front of the TV and computer all day" that are to blame. "It's so goddamn obvious--how can anyone ignore it?"[160]

**Short-Term Side Effects**

"Extraordinarily Irresponsible" -- Atkins and Pregnancy

So fine, maybe calories, not carbohydrates, are to blame for our obesity epidemic, and maybe Atkins' claims, as described by one of the world's leading obesity researchers, are "the most unutterable nonsense I ever saw in my life."[161] So what if it's just a low calorie diet in disguise? It's still a low calorie diet where one can eat all the (albeit bunless) bacon cheeseburgers you want. So what's the problem?

The immediate concern centers on the state of ketosis. Pregnant women are the most at risk. Based on detailed data from 55,000 pregnancies,[162] acetone and other ketones may cause brain damage in the fetus, which may result in the baby being born mentally retarded.[163] The fact that ketones seemed to cause "significant neurological impairment" and an average loss of about 10 IQ points was well known and aroused "considerable concern" years before Atkins published his first book.[164] Atkins nonetheless wrote. "I recommend this diet to all my pregnant patients."[165]

After enough pressure from the AMA, Atkins finally relented. "There's one other point I'm very sorry about," Atkins finally admitted, "I now understand that ketosis during pregnancy could result in fetal damage. My pregnant patients have never had this problem, but I realize I didn't study enough cases to validate my recommendation. If anyone wants a retraction, I'll be glad to give one."[166]

Subsequently at the congressional hearing on fad diets, however, when asked by Senator George McGovern if he had made a public retraction of his reckless recommendation, Atkins replied, "No; I will stand by the statement I made in the book... I have recommended it for use by the pregnant woman with the observation of the managing obstetrician or physician..."[167] After the Senate Select Committee hearings, the publisher added a small print disclaimer on the copyright page in the front of the book.[168]

Highlighting Atkins' recommendation of his diet even during pregnancy, one nutrition textbook reads "Proponents of the low carbohydrate diet have been extraordinarily irresponsible in ignoring these hazards."[169] The tobacco industry similarly denied smoking was harmful during pregnancy.[534] "The woman who goes on a ketogenic diet [like Atkins] for six months of pregnancy," noted one fetal specialist, "is playing Russian roulette."[170]

**More to Lose Than Weight**

Although pregnant and breastfeeding women may be at most risk, "The [Atkins] diet is potentially dangerous to everyone," warned the Chair of the Medical Society of New York County's Public Health Committee.[171] In all of the editions of his Diet Revolution, Atkins cited the "pioneering" work of "brilliant" researcher Gaston Pawan.[172] When Atkins was brought before the Senate investigation on fad diets, the Chair of the Senate Subcommittee read a statement submitted by Dr.
Pawan himself who supported the AMA's condemnation of the Atkins diet and explained that he used very high fat diets only for "specific experimental purposes" (emphasis in original.) in hospital settings and would never "recommend a very high fat diet indiscriminately to obese subjects for obvious reasons."[173]

The symptoms of ketosis include general tiredness, abrupt or gradually increasing weakness, dizziness, headaches, confusion, abdominal pain, irritability, nausea and vomiting, sleep problems and bad breath.[174] One study found that all those subjected to carb-free diets complained of fatigue after just two days. "[T]his complaint was characterized by a feeling of physical lack of energy... The subjects all felt that they did not have sufficient energy to continue normal activity after the third day. This fatigue promptly disappeared after the addition of carbohydrates to the diet."[175] From a review published in a German medical journal, "[lightheadedness], fatigue, and nausea are frequent, despite what Dr. Atkins claims."[176]

In World War II, the Canadian Army had an illuminating experience with ketogenic diets. For emergency rations, infantry troops had pemmican, which is basically a carbohydrate-free mixture of beef jerky and suet (animal fat). The performance of the infantrymen forced to live off pemmican deteriorated so rapidly that they were incapacitated in a matter of days. As reported in the journal War Medicine in 1945, "On the morning of the fourth day of the diet, physical examination revealed a group of listless, dehydrated men with drawn faces and sunken eyeballs, whose breath smelled strongly of acetone." [177] A ketogenic diet, concluded one medical review, "can be associated with significant toxicity."[178]

In a study funded by Atkins himself, most of the people who could stick with the diet reported headaches and halitosis (bad breath). Ten percent suffered hair loss. While most people lost weight--at least in the short-term--70% of the patients in the study also lost the ability to have a normal bowel movement.[511]

**Constipation**

Authorities recommend Americans start roughing it with "at least 30-35 grams"[179] of fiber a day "from foods, not from supplements."[180] The initial phase of the Atkins Diet, which dieters may have to repeatedly return to, has as little as 2 grams of fiber per day[181]--that's less than 7% of the minimum daily recommendation of the American College of Gastroenterology.[507] Other independent analyses--one at Tufts[508], another published in the Journal of the American College of Nutrition[509] and a third published in the 2004 volume of the Journal of the American College of Cardiology[22]--found 4 grams of fiber a day, only 16% of the FDA's Daily Value.[510]

Atkins can't help but concede the health benefits associated with fiber found, in his own words, in "vegetables, nuts and seeds, fruits, beans and whole unrefined grains;" but then asks "How can you get the benefits of fiber without the carbs contained in these foods? The answer is supplementation." He then goes on to basically recommend that all his followers start taking sugar-free Metamucil. What must Mother Nature have been thinking, putting all the fiber into such "poison" foods?

The May 2004 Annals of Internal Medicine study which was misleadingly[182] much lauded in the press with headlines like "Scientists Give Thumbs Up to Atkins Diet," showed once again that most of the Atkins Dieters suffered from headaches and constipation. They also had significantly more diarrhea, general weakness, rashes and muscle cramps--despite taking the 65 supplements prescribed by Atkins. One subject was so constipated he had to seek medical attention. Another developed chest pain on the diet and was subsequently diagnosed with coronary heart disease.[183] No wonder Consumer Guide gave the Atkins Diet zero out of four stars for being "outright dangerous"[184] and the editor of the Healthy Weight Journal gave Atkins the dubious Slim Chance Award for "Worst Diet."[185]

"Disease of Kings"

Because of the Henry VIII-style meat load in low carb diets, essentially every single study of low carb diets that measured uric acid levels showed that uric acid levels rose.[186] In virtually every instance in which it's been studied over the last 50 years, uric acid itself has been tied to cardiovascular disease risk, and may be an independent risk factor by increasing free radical damage or making the blood more susceptible to clotting.[187]

There is also concern that uric acid levels on a meat-centered diet might be forced so high that it could start crystallizing in one's joints, triggering gout, an excruciating arthritic condition. A March 2004 article published in the New England Journal of Medicine documented the effect of meat intake on gout risk.
Harvard researchers followed almost 50,000 men for 12 years and found that "each additional daily serving of meat was associated with a 21 percent increase in the risk of gout."[188] In fact, the Atkins Diet has been blamed directly for the rising incidence of this so-called "disease of kings."[189] Well, Atkins did claim his diet is "fit for a prince or princess."[190]

**Prescription for Muscle Cramps**

The presence of muscle cramps, Atkins explained, "means you are losing too many electrolytes." Along with the ketones, one's kidneys may also flush out critical electrolytes like calcium, magnesium and potassium, which may result in muscle cramps or worse.[191]

Atkins realized this potential danger and recommended his followers take potassium supplements. In fact, some people lose so much potassium they may need professional help. According to Atkins himself, sales of potassium supplements "of anywhere near the proper amount of potassium you may need are illegal over the counter; therefore you may need a doctor to write you the proper prescription."[192] Even Barry Sears, the author of the flawed[193] Zone Diet, recognizes the danger the Atkins Diet might present: "Any meal that you have to take potassium supplements, there's something wrong with that."[194]

**Cognitive Impairment**

Experts have voiced a longstanding concern that ketosis might fog up people's thinking, but it wasn't formally tested until 1995. As reported in the International Journal of Obesity article "Cognitive Effects of Ketogenic Weight-Reducing Diets," researchers randomized people to either a ketogenic or a nonketogenic weight loss diet. Although both groups lost the same amount of weight, those on the ketogenic diet suffered a significant drop in cognitive performance.[195]

After one week in ketosis, higher order mental processing and mental flexibility significantly worsened into what the researcher called a "modest neuropsychological impairment."[196]

"Emotional Zombie"

Not only may the Atkins Diet impair mental functioning, it may impair emotional functioning as well. Researchers at MIT are afraid the Atkins Diet is likely to make many people--especially women--irritable and depressed.[197]

The Director of MIT's distinguished Clinical Research Center measured the serotonin levels in the brains of 100 volunteers eating different diets.[198] Serotonin is a chemical messenger in the human brain that regulates mood. In fact, the way antidepressants like Prozac are purported to work is by increasing brain levels of this neurotransmitter. The MIT researchers found that the brain only seemed to make serotonin after a person ate carbohydrates.[199] By starving the brain of this essential mood elevator, the researchers fear that the Atkins Diet may make people restless, irritable or depressed. They noted that women, people under stress, and those taking anti-depressants might be most at risk.[200]

When one follower of low carb guru Herman Tarnower's 1978 "Scarsdale Diet," wrote to him, "When I diet, I get cranky, and my husband says, 'I like you better fat than cranky'; have you any suggestions?" Dr. Tarnower responded, "You should be able to diet without getting cranky. Your husband, I am sure, would like to have you attractive, lean, and pleasant." His paternalistic prescription may make one sympathize, as one journalist wrote, "with his lover Jean Harris, the former school headmistress who later did prison time for his murder."[201]

Based on the MIT serotonin research, Judith Wurtman, Director of the Women's Health Program at the MIT Research Center, warns that filling up on fatty foods like bacon or cheese may make people tired, lethargic and apathetic. Eating a lot of fat, she stated, may "make you an emotional zombie."[202]

"Sunshine and Sex"

Atkins' remedy to counteract or cover-up the toxic effects of his diet is a list of prescriptions. Constipation? No problem, he says, take a laxative.[203]

Leg cramps? They are "probably due to a calcium deficiency," Atkins explained, "I treat it with calcium supplements and Vitamins E and C. Sometimes magnesium and potassium have to be added."[204]

What if uric acid goes up? Not an obstacle for Atkins, who wrote: "this rarely poses a problem because I routinely prescribe a drug to prevent uric acid formation... if it goes above the normal range after being on the diet."[205] He fails to mention, however, that this drug can cause irreversible liver damage, life-threatening anemia, and, in rare cases, even death.[206]

Breath that smells "like a cross between nail polish and over-ripe pineapple?"[1158] Great!--that means it's "working at full
efficiency."[207] Just "carry around... one of those purse-sized aerosol mouth fresheners, and you can have sweet
breath..."[208]

Despite the side effects of ketosis, Atkins' books encourage people to repeatedly test their urine for ketones to ensure they
remain in this unhealthy state. Atkins almost fetishized ketosis, describing it being "as delightful as sunshine and sex."
[209] Atkins did, after all, start his career off as a stand-up comic.[210] One dieter replied, "I don't think Dr Atkins had much
sex if he thinks that ketosis is better than sex. It's certainly not."[211]

In fact, thanks to its side effects, those who go on the Atkins Diet in an attempt to attract others may find it
counterproductive when a potential mate gets too close and finds a constipated, cognitively impaired "zombie" with bad
breath.

All Long-Term Studies on Atkins a Wash

Atkins Comes in Last for Long-Term Weight Maintenance

Even if people can handle the side effects of the diet, there are no data to show that the initial rapid weight loss on the
Atkins Diet can be maintained long term. Many of the studies on the Atkins Diet have lasted only a few days,[212] the
longest the Atkins Diet has ever been formally studied is one year.

There have been 4 such yearlong studies and not a single one showed significantly more weight lost at the end of the
year on the Atkins Diet than on the control "low fat" diets.[213-215,523] In the yearlong comparison of the Atkins Diet to
Ornish's diet, Weight Watchers, and The Zone Diet, the Atkins Diet came in dead last in terms of weight lost at the end of
the year. Ornish's vegetarian diet seemed to show the most weight loss.[216] The Atkins website had no comment.[217]

Noting that by the end of the year, half of the Atkins group had dropped out, and those who remained ended up an
unimpressive 4% lighter, Fat of The Land author Michael Fumento commented, "do you really think any of them could sell
a single book copy, much less as many as 15 million (for Atkins), by admitting to a 50 percent drop-out rate in one year
with a mere five percent of weight loss among those left?"[218]

Ornish's vegetarian (near-vegan) diet has been formally tested for years.[219] Even though the diet was not even
designed for weight loss, after five years most of the Ornish adherents were able to maintain much of the 24 pounds they
lost during the first year "even though they were eating more food, more frequently, than before without hunger or
deprivation."[220]

Another of the year-long studies also compared a low fat vegetarian (vegan) diet to the "Atkins Diet."[526] Those who ate
as much as they wanted of the vegan diet lost an average of 52 pounds--60% more than those reportedly on the Atkins
diet lost.[523] This is consistent with what research we have on vegans themselves. Vegans are vegetarians that exclude
all saturated animal fat and cholesterol from their diet.

The biggest study on vegans to date compared over a thousand vegans in Europe to tens of thousands of meat eaters
and vegetarians. The meat eaters, on average, were significantly heavier than the vegetarians, who in turn were significantly
heavier than the vegans. Even after controlling for exercise, smoking, and other nondietary factors, vegans came out
slimmest in every age group. Less than 2% of vegans were obese.[221]

In a snapshot of the diets of 10,000 Americans, those eating vegetarian were the slimmest, whereas those eating the
fewest carbs in the sample weighed the most. Those eating less carbs were on average overweight; those eating
vegetarian were not.[222]

Vegetarians may have a higher resting metabolic rate, which researchers chalk up to them eating more carbs than
meateaters (or possibly due to enhanced adrenal function).[223] At the same weight, one study showed that vegetarians
seem to burn more calories per minute just by sitting around or sleeping than meat eaters--almost 200 extra calories a day.
Although earlier studies didn't find such an effect,[224] if confirmed, that amounts to the equivalent to an extra pound of fat
a month burned off by choosing to eat vegetarian.[225]

The only other two formal yearlong studies found that although the initial drop in weight on Atkins was more rapid, weight
loss on the Atkins Diet reversed or stalled after 6 months. The longer people stay on the Atkins Diet, the worse they
seemed to do.[226-227] None of the four longest studies on the Atkins Diet showed a significant advantage over just the
type of high carbohydrate diets Atkins blamed for making America fat.

Anyone can lose weight on a diet; the critical question is whether the weight loss can be maintained and at what cost. If
low carb diets really did cure obesity, the original in 1864 would have eliminated the problem and no more diet revolutions
would be necessary. Short-term weight loss is not the same thing as lifelong weight maintenance.
Long-Term Weight Loss Secrets

Permanent weight control is difficult to achieve. Up to approximately 95% of repeat dieters fail, regaining the weight that they initially lost. What about the other 5% though? Has anyone studied them and found out their secret? In her book Eating Thin for Life, award-winning[228] journalist and dietician Anne Fletcher delved into the habits of a few hundred folks who had not only lost an average of 64 pounds but also maintained that loss for an average of 11 years. What did she find?

"Basically, they're eating the opposite of a high-protein, low carbohydrate diet," Fletcher reported. When she asked them to describe their eating habits, the top responses were "low-fat" followed by "eating less meat."

These dieters with long-term success also told her they ate "more fruits and vegetables." Research seems to support this notion. One research study showed, for example, that significant weight loss could be triggered in people just feeding them extra fruit--3 added apples or pears a day.[229] Harvard studied 75,000 women for a decade and the results suggest that the more fruits and vegetables women eat, the less likely they will become obese.[230] A 2004 review of the available research suggests that in general "increasing fruit and vegetable intake may be an important strategy for weight loss."

Researchers at the National Cancer Institute followed over 75,000 people for ten years to find out which behaviors were most associated with weight loss and which with weight gain. They wrapped tape measures around people's waists for a decade and found that the one dietary behavior most associated with an expanding waistline was high meat consumption, and the dietary behavior most strongly associated with a loss of abdominal fat was high vegetable consumption.[231]

Even after controlling for other factors, men and women who ate more than a single serving of meat per day seemed to be 50% more likely to suffer an increase in abdominal obesity than those who ate meat just a few times per week. The researchers conclude: "Our analysis has identified several easily described behaviors [such as reducing meat intake to less than three servings per week and jogging a few hours every week] that, if widely adopted, might help reverse recent increases in adult overweight... Increases in vegetable consumption might reduce abdominal obesity even further."

The sad thing, according to the Director of Nutrition for the Center for Science in the Public Interest, is that "people keep believing that the magic bullet is just around the corner... if they only eliminate food 'x' or combine foods 'a' and 'b,' or twirl around three times before each meal."[234] The reality is that most successful dieters lose weight without the gimmicks on which Americans spend $30 billion[235] per year.[236]

A recent survey of 1300 adults found that low-carb diets seemed to be 50 percent less effective at helping people reach their weight-loss goals than weight-loss diets in general.[488] In the largest survey ever undertaken on the long-term maintenance of weight loss, Consumer Reports found that the vast majority of the most successful dieters said they lost weight entirely on their own, without enrolling in some expensive program, or buying special foods or supplements, or following the regimen of some diet guru.[237] The most popular fad diet right now may be Atkins, but it's not the most popular diet, and not the one that seems to work the best.

Atkins Missing in Action

The most formal study of lasting weight loss, though, is the highly respected National Weight Control Registry, funded by the National Institutes of Health. For over 10 years, the Registry has tracked the habits of thousands of successful dieters. They now have 5000 Americans confirmed to have lost an average of 70 pounds and who were able to prove they have kept it off for an average of 6 years.[238] After a decade of rigorously tracking those who most successfully lost weight--and kept it off--one of the chief investigators revealed what they found: "Almost nobody's on a low carbohydrate diet."

These researchers, led by a team at Brown University and the University of Colorado, found that the people most successful in losing and maintaining their weight were eating high carbohydrate diets--five times as many carbs as Atkins prescribed in the "weight loss" phase of his diet.[240] Of the thousands of people in the National Weight Control Registry, less than 1 percent follow a diet similar to the Atkins program. "We can't find more than a handful of people who follow the Atkins program in the registry," said one chief investigator, "and, believe me, we've tried."[241]

Fifteen million Atkins books sold and investigators can only find a "handful" of followers who could qualify for the Registry? To qualify, all dieters have to do is prove they lost just 30 pounds and kept it off for at least one year. Twenty-six million Americans[242] supposedly on "hard-core" low carb diets and "almost nobody" on Atkins has even qualified?

Maybe for some reason only dieters eating lots of carbohydrates hear about the Registry? No, the National Weight Control Registry has been plugged in Dr. Atkins' own book for years and is promoted on the official Atkins website.[243] The reason why anecdotes of Atkins dieters maintaining their weight loss crop up in Atkins books and websites but seemingly nowhere else may be because there isn't much oversight when posting information to the web, whereas the Registry demands proof.[244]
Bringing Home the Bacon

Atkins conceded that the "WORST [emphasis his]" feature about his diet is the "rapidity with which you gain [weight] if you abandon it." "But the BEST feature," he claims, "is that you don’t HAVE to go off this diet...”[245]

The reason people fall off the wagon, Atkins claimed, is because of "carbohydrate addiction." What he calls "addiction," though, others might call our natural urge to eat the fuel our bodies evolved to live on--carbohydrates. Patients inevitably cheat and then tragically blame themselves instead of the diet for this failure.

Low carb diets, like all fad diets, tend to fail.[246] Even Atkins admitted that there is "no formal documentation" of long-term weight loss on his diet. He'd been supposedly seeing patients for decades on his diet; why didn't he do a study?

When challenged on just that point Atkins replied, "Why should I support a study? It's all in my book." When it was pointed out that the book was "all anecdotal," Atkins said mainstream medicine's demand for proof simply functioned to "maintain it at its current level of ineptitude.”[247]

In February 2000, the USDA brought Atkins in to discuss his diet. When asked why he doesn't conduct his own study, he pleaded poverty: "But I haven’t been able to fund a study.” To which the Director of Nutrition Sciences at Albert Einstein College of Medicine, replied, "Ten million books in print and you can't fund a study?"

The Director continued: "You market the vitamins. You sell the vitamins. You market this. This is not for the public good. This is a money-making proposition.”[248] The Chair of the Board of Atkins’ own New York County Medical Society made a similar charge when Atkins' book was first published, alleging it was "clearly... unethical" and "self-aggrandizing.”[249] The New York Board of Health later tried, unsuccessfully, to revoke his medical license.[250]

Why has the U.S. government been lax in testing the Atkins Diet at any point in the last 30 years? One reason may have been that it might be difficult to get approval from an ethical review committee to put people on the diet long term, given what is known about the dangers of a meat-laden diet. As one medical review concluded, "There is no evidence that low carbohydrate diets are effective for long-term weight management, and their long-term safety is questionable and unproven.”[251]

The current Director of Nutrition at Harvard advises that all physicians should produce a handout warning about all of the adverse effects of the Atkins Diet. Not only should the handout explain explicitly that the diet may increase one's risk of heart disease, cancer, and stroke, but also that "Other health risks include... dizziness, headaches, confusion, nausea, fatigue, sleep problems, irritability, bad breath, and worsening of gout and kidney problems; osteoporosis, since a high ratio of animal to vegetable protein intake may increase bone loss and the risk of hip fracture in elderly women; a rise in blood pressure with age...and rapid falling blood pressure upon standing up (orthostatic hypotension), which can... put older patients at higher risk for falls.”[252] After running through the adverse effects associated with ketosis, the American institute for Cancer Research wrote, "Those are the short-term effects. The long-term effects are even more dire.”[253]

Long-Term Side Effects

"Massive Health Risk"

The downfall of the Atkins Diet is also its one saving grace--people may not be able to tolerate the diet for long enough to suffer the long-term consequences. The American Heart Association states: "Individuals who follow these diets are therefore at risk for compromised vitamin and mineral intake, as well as potential cardiac, renal [kidney], bone, and liver abnormalities overall.”[254] Low carb diets like the Atkins diet may also hasten the onset of type II diabetes.[519] In short, concluded the September 2004 review in The Lancet,[524] "low-carbohydrate diets cannot be recommended.”[525]

In Europe, hospitals have already started banning the Atkins Diet[255-256] after the British government's Medical Research Council, backed up by the British Nutrition Association and the British Dietetic Association,[257] condemned the Atkins Diet as "negligent"[258] "nonsense and pseudo-science"[259] posing a "massive health risk.”[260]

An article out of the Cleveland Clinic Journal of Medicine entitled "Physician's Guide to Popular Low Carbohydrate Weight-Loss Diets" noted that the Atkins Diet "can jeopardize health in a variety of ways.”[261] Let us count the ways.

Malnutrition

Atkins’ followers risk a number of serious nutritional deficiencies.[262] In fact, some people have become so deficient on low carb ketogenic diets that they almost went blind because their optic nerves started to degenerate.[263-264]
When cutting calories, it's especially important to eat nutrient-dense diets, but the Atkins Diet presents a double whammy; it restricts the healthiest foods, like fruit, and unrestricts some of the unhealthiest, like meat. Shortly after Atkins' original book was published, the highly prestigious Medical Letter on Drugs and Therapeutics concluded that the Atkins Diet was "unbalanced, unsound and unsafe."[265] As noted in a Medical Times review, Atkins has created a "ridiculously unbalanced and unsound" "hazardous" diet.[266] Twenty-seven years later the Medical Letter offered an update noting that the safety of the Atkins Diet had still "not been established."[267]

Low carbohydrate diets like Atkins maximize the consumption of disease-promoting substances like the cholesterol, saturated fat, and industrial pollutants in meat, yet restrict one's intake of fiber and literally thousands of antioxidants and phytochemicals found exclusively in the plant kingdom (like the carotenoids, lycopenes, bioflavenoids, phytic acid, indoles, isothiocyanates, etc.) that have "anti-aging, anti-cancer and anti-heart disease properties."[268] As a 2004 medical review concluded, the Atkins Diet is so "seriously deficient" in nutrition that "there is real danger of malnutrition in the long term."[269]

Where might then one get one's vitamins on the Atkins Diet? From the Atkins website, of course, on sale now for just over $640 a year.[270] Add some antioxidants and the tab is up to $1000.[271] That is, of course, in addition to the estimated $400-$1400[272] the pricey Atkins food--meat and cheese--costs every month (unless one chooses to live off hot dogs).

Realizing his diet is so deficient in nutrients, Atkins prescribed no less than 65 nutritional supplements in part to help fill the nutritional gaps created by his diet.[274] A "proper Atkins Dieter" Atkins wrote, "follows the entire program, including the supplements."[275] In his last edition Atkins even had a chapter entitled "Nutritional Supplements: Don't Even Think of Getting Along Without Them."[276] Perhaps this is because his corporation sells them.

"Who needs orange juice," Atkins wrote, "when a Vitamin C tablet is so handy?"[277] Oranges, of course, contain much more than vitamin C. As Sue Radd, a world leader on phytonutrient research, put it "There's not one vitamin pill in the world that can give you everything you need."[278] A review in the Cleveland Clinic Journal of Medicine agreed that the Atkins Diet is "deficient in nutrients that cannot be replaced by supplements and are excessive in nutrients that may increase the risk of mortality and chronic disease."[279]

Responding to the criticism that the Atkins Diet was deficient in fruits and vegetables, Atkins-funded researchers responded that people on Atkins could include a limited quantity of some vegetables "and even small amounts of fruit." Even during later, more liberal phases of the diet, though, Atkins warned readers that eating fruit will "always be somewhat risky." The Atkins researchers continued, "It would be prudent to take a multivitamin/mineral supplement."[280] A low carb diet is a low nutrition diet.

Cancer

Atkins' followers also risk cancer. Studies at Harvard and elsewhere involving tens of thousands of women and men have shown that regular meat consumption may increase colon cancer risk as much as 300 percent.[281-282] As one Harvard School of Public health researcher noted, because of the meat content, two years on the Atkins Diet "could initiate a cancer. It could show up as a polyp in 7 years and as colon cancer in ten."[283] Another Harvard study showed that women with the highest intake of animal fat seem to have over a 75% greater risk of developing breast cancer.[284] It's tragically ironic that after McDonalds' CEO apparently dropped dead of a heart attack in 2004, their new CEO was in the operating room with colo-rectal cancer only 16 days later.[285]

The most comprehensive report on diet and cancer in history was published in 1997. It took over four years to complete, reviewing 4500 studies from thousands of researchers across the globe--a landmark scientific consensus document written by the top cancer researchers in the world. After all that work, what was their number one recommendation? "Choose a diet that is predominantly plant based, rich in a variety of fruits, vegetables, nuts, and beans with minimally processed starchy foods."[491] In other words, essentially the opposite of the Atkins Diet.

Kidney "Scarring"
Atkins' followers also risk kidney damage.[287] Like his advice for pregnant women, Atkins once wrote "The diet is safe for people even if there is a mild kidney malfunction."[288] We now know this to be false.

In a press release entitled "American Kidney Fund Warns About Impact of High-Protein Diets on Kidney Health," Chair of Medical Affairs, Paul W. Crawford, M.D., wrote, "We have long suspected that high-protein weight loss diets could have a negative impact on the kidneys, and now we have research to support our suspicions." Dr. Crawford is worried that the strain put on the kidneys could result in irreversible "scarring in the kidneys."[289]

Three months later, the newest edition of Dr. Atkins' New Diet Revolution was released in which Dr. Atkins stated: "Too many people believe this untruth [that too much protein is bad for your kidneys] simply because it is repeated so often that even intelligent health professionals assume it must have been reported somewhere. But the fact is that it has never been reported anywhere. I have yet to see someone produce a study for me to review..."[290]

Although evidence that such diets could be risky for one's kidneys existed years before he made that statement,[291] the definitive study showing just how dangerous his diet could be to a dieter's kidneys was published a month before Atkins died. The Harvard Nurse's Health Study proved that high meat protein intake was associated with an accelerated decline in kidney function in women with mild kidney insufficiency.[292] The problem is that millions of Americans--as many as one in four adults in the United States--seem to already have reduced kidney function, but may not know it, and would potentially be harmed by high meat diets such as Atkins.[293] And the "excessive" amount of protein which furthered kidney damage in the women in the Nurse's Study is only about half of what one might expect to get on the Atkins Diet.[294]

The American Academy of Family Physicians notes that high animal protein intake is also largely responsible for the high prevalence of kidney stones in the United States. Kidney stones can cause severe pain, urinary obstruction, and kidney damage. Plant protein does not seem to have a harmful effect.[295] "If we were smart," says Dr. Theodore Steinman, a kidney specialist and senior physician at Beth Israel Deaconess Medical Center, "we would all be vegetarians."[1157]

High cholesterol, which may be exacerbated by the Atkins Diet,[523] has also been linked to a worsening of kidney function in both diabetics and nondiabetics.[536]

The American Kidney Fund's Dr. Crawford concluded, "Chronic kidney disease is not to be taken lightly, and there is no cure for kidney failure. The only treatments are kidney dialysis and kidney transplantation. This research shows that even in healthy athletes, kidney function was impacted and that ought to send a message to anyone who is on a high-protein weight loss diet."[296]

Peeing Your Bones Down the Toilet

A 2003 review of the safety of low carbohydrate diets reeled off an alarming list of potential problems: "Complications such as heart arrhythmias, cardiac contractile function impairment, sudden death, osteoporosis, kidney damage, increased cancer risk, impairment of physical activity and lipid [cholesterol] abnormalities can all be linked to long-term restriction of carbohydrates in the diet."[297]

There is a particular concern that children who go on the Atkins Diet might suffer permanent physical and mental damage as a result of starving their bodies of critical nutrients. As one U.S. child nutrition specialist explained, "The effect can be to dull the mind, stunt growth, and soften bones...I wouldn't want to risk it by putting my child on a low carbohydrate diet."[298]

The concern with bone health arises from the fact that muscle protein has a high sulphur content. When people eat too much of this meat protein, sulfuric acid forms within our bodies which must somehow be neutralized to maintain proper internal pH balance. One way our bodies can buffer the sulphuric acid load caused by meat is with calcium borrowed from our bones. Cheese is also a leading source of these sulphur-containing proteins.[535] People on high meat diets can lose so much calcium in the urine that it can actually solidify into kidney stones.[299] Over time, high animal protein intakes may leach enough calcium from the bones to increase one's risk of osteoporosis. People may be peeing their bones into the toilet along with the ketones.

The Harvard Nurse's Health Study, which followed over 85,000 nurses for a dozen years, found that those who ate more animal protein had a significantly increased risk of forearm fracture. While plant-based proteins did not show a deleterious effect, women eating just a serving of red meat a day seemed to have significantly increased fracture risk.[300] Other studies have linked meat consumption to hip fracture risk as well.[301]

Although Atkins conceded, "kidney stones are a conceivable complication,"[302] Atkins dismissed any assertion that his diet might endanger bone health. Researchers decided to test his claim directly.

In 2002, researchers from the Universities of Chicago and Texas published a study that put people on the Atkins Diet and
measured 1) how acidic their urine got and 2) just how much calcium they were losing in their urine. They reported that the Atkins Diet resulted in a "striking increase in net acid excretion." After just two weeks on the Atkins Diet, the subjects were already losing 258mg of calcium in their urine every day. They concluded that the Atkins Diet "provides an exaggerated acid load, increasing risks for renal calculi [kidney stone] formation and bone loss."[303] In addition, the Atkins Diet is actually deficient in calcium in the first place--even if one includes his recommended 65 supplements.[304] Luckily there's a 66th, available on his website.[305]

"Eaters of Raw Flesh"

We don't have any long-term published data on the bone health of Atkins' followers (or any other health parameter for that matter). One might look to the Inuit peoples--the so-called "Eskimos"--for hints, though. (The word Eskimaux comes from the word "eaters of raw flesh.")[306] They seem to be the only population on Earth approximating the Atkins Diet, living largely off Atkins' dream foods like blubber.

Despite having some of the highest calcium intakes in the world, the Inuit also have some of the worst rates of osteoporosis.[307] Although calcium intakes vary widely, people in some villages get over 2500mg per day, almost 5 times what most Americans get, due to their eating many of their fish whole, bones and all.[308] For example, their recipe for "Ice Cream" calls for "2 cups moose grease," not in and of itself high in calcium, but with the addition of "1 dressed pike," this Atkins-friendly dessert offers up a respectable 130mg of calcium per serving.[309] The "unusually rapid bone loss" found in every study ever published on Inuit bone health is blamed on the "acidic effect of a meat diet."[310-314]

Not only does the near-Atkins level of animal protein in their diet seem to be dissolving their bones, the near-Atkins level of animal fat leaves the Inuit women's breast milk with some of the highest levels of PCBs in the world. Their blood is swimming with mercury and other toxic heavy metals. "They're at the top of the food chain," says Dr. Russel Shearer, an environmental physical scientist with the Canadian Department of Indian Affairs and Northern Development, and therefore "accumulate the highest levels of these contaminants."[315] In the last edition of his book, Atkins did finally acknowledge the threat posed by the industrial pollutants in animal foods and urged his followers to choose organic free-range meat.

Atkins Distorted His Record on Cholesterol

Although ketogenic diets have caused a number of "serious potentially-life-threatening complications,"[317] perhaps the greatest danger of the Atkins Diet, according to the American Medical Association, lies in the heart.

Atkins claimed a worsening of cholesterol levels typically only occurs "when carbohydrates are a large part of the diet."[318] We've come to this be false since 1929 when the Institute of American Meatpackers paid to see what would happen if people lived on an all-meat diet. The blood plasma of the unfortunate subjects was so filled with fat it "showed a milkiness" and one of the subjects' cholesterol shot up to 800![319]

In the head-to-head comparisons of the four popular weight-loss diets, Ornish's vegetarian diet was the only one that showed a significant decrease in LDL levels--the so-called "bad" cholesterol. Even researchers paid by Atkins concede that high saturated fat diets like Atkins' tend to increase LDL cholesterol.[321] These researchers have to concede the truth since they publish their work in peer-reviewed scientific journals. Dr. Atkins, though, died without ever publishing a single paper in any scientific journal about anything, and thus had more freedom to bend the truth.

"The truth," Atkins wrote, "is that every one of a score of studies on [very low carb diets] showed a significant improvement in cholesterol." He accused those who say otherwise of simply not doing their homework. Any claim that cholesterol doesn't significantly improve in "every one of scores of studies" is, he wrote in the last edition, "one of the many examples of untruths being perpetrated because the accusers don't bother to read the scientific literature."[322] He then goes on to recommend no less than 17 supplements for the "prevention of cholesterol elevations" on his diet.[323]

But what about his claim that "every one of a score of studies showed a significant improvement in cholesterol." When the AMA and the American Heart Association question this "fact," is it just because they "don't bother to read the scientific literature?" That statement of his, in the latest edition of his book and in essence repeated to this day on the Atkins website,[324] presents a clear opportunity to test the veracity of his claims. And the actual truth is almost the exact opposite.

Unfortunately, Dr. Atkins didn't include citations to back up his "score of studies" statement. In fact, when pressed for a list of citations in general, Dr. Atkins told an interviewer that "It and the papers I quoted were in a briefcase I lost some time ago."[324] Researchers have located about a dozen studies, though, that measured the effects of low carb diets on cholesterol levels. Did they all "show a significant improvement in cholesterol?" No. In fact, with only one exception, every single controlled study showed just the opposite--LDL cholesterol either stagnated or was elevated by a low carb diet, even in those that showed weight loss.[325-338]
During active weight loss--any kind of weight loss (whether from chemotherapy, cocaine use, tuberculosis or the Atkins Diet)--cholesterol synthesis temporarily decreases[339] and LDL cholesterol levels should go down.[340] Yet, all the saturated animal fat in the Atkins Diet tends to instead push levels up, and in most studies the bad cholesterol doesn't fall as it should with weight loss. The saturated fat in effect cancelled the benefit one would expect while losing weight and cutting out trans fats.[522] And what happens when people on the Atkins Diet stop losing weight? People can't lose weight forever (Stephen King novels aside). The fear is that their LDL cholesterol level might then shoot through the roof.[341-342]

"There is no doubt that you lose weight initially," Dr Jim Mann, an endocrinology specialist from the University of Otago, New Zealand, told the 2003 meeting of the European Society of Cardiology, "but there is a grave risk of a dramatic rise in cholesterol levels during the maintenance phase [of the Atkins Diet]." When weight loss is maintained--or as often happens, there is weight gain [on the Atkins Diet]," Mann continued, "we have observed that a lot of people experience a rise in cholesterol to levels greater than when they started the diet."[1159]

Sometimes even during the active weight loss, however, LDL cholesterol levels became elevated on the Atkins Diet. One study of women, for example, showed that just two weeks on the Atkins Diet significantly elevated average LDL levels over 15%.[343] In a trial of men on the Atkins Diet, even though they lost an average of 17 pounds after 3 months, their LDL cholesterol jumped almost 20%.

The May 2004 Annals of Internal Medicine study showed that a third of Atkins dieters suffered a significant increase in LDL cholesterol. The goal is to have a double digit LDL--an LDL under 100 (mg/dl).[344] In the study, one person's LDL shot from an unhealthy 184 to a positively frightening 283 (which means their total cholesterol was probably somewhere over 350).[345] With so many people on these diets, that could mean Atkins is endangering the health of millions of Americans. [346] LDL cholesterol is, after all, the single most important diet related risk factor for heart disease,[527] the number one killer in the United States for both men and women.[347]

In another clinical trial, despite statistically significant weight loss reported in the Atkins group, every single cardiac risk factor measured had worsened after a year on the Atkins Diet. The investigator concludes "Those following high fat [Atkins][526] diets may have lost weight, but at the price of increased cardiovascular risk factors, including increased LDL cholesterol, increased triglycerides, increased total cholesterol, decreased HDL cholesterol, increased total/HDL cholesterol ratios, and increased homocysteine, Lp(a), and fibrinogen levels. These increased risk factors not only increase the risk of heart disease, but also the risk of strokes, peripheral vascular disease, and blood clots."[523]

While the LDL in the Atkins group increased 6%, the LDL cholesterol levels in the whole-foods vegetarian group was cut in half--dropping 52%.[523] This kind of drop would theoretically make your average American[528] almost heart-attack proof.[529]

When the pro-Atkins journalist who wrote the misleading New York Times Magazine piece was confronted as to why he didn't include the results of this landmark study, which directly contradicted what he wrote in the article, all he could do was to accuse the researchers of just making the data up.[348]

It's interesting to note that the one exception --a published study of the Atkins Diet showing a statistically significant reduction in LDL--had no control group, put subjects on cholesterol-lowering supplements and was funded by the Atkins Corporation itself. Even in that study though, the drop was modest--only a 7% drop (compared, for example, to the 52% drop on the vegetarian diet)--and didn't include two subjects who quit because their cholesterol levels went out of control.[349]

Yet studies like this have been heralded as a vindication of the Atkins Diet by the mainstream media.[350] As journalist Michael Fumento, co-author of Fat of the Land, pointed out, "How peculiar when the most you can say for the best-selling fad-diet book of all time is that it probably doesn't kill people."[351] To which I might add, "in the short-term." Based on an analysis of the Atkins Diet, long-term use of the Atkins Diet is expected to raise coronary heart disease risk by over 50%.[352] "The late Dr. A," Fumento quips, "still gets an F."[353]

Less often reported in the media is the fact that one of the research subjects placed on the Atkins Diet in the 2003 "vindication" study was hospitalized with chest pain and another died.[354] Similarly, in the widely publicized May 2004 study, less widely publicized was the fact that two people in the low carb-diet arm of the study couldn't complete the study because they died. One slipped into a coma; the other dropped dead from heart disease.[355] As the Director of Nutrition at the Harvard School of Medicine has written, "there is still much danger in the widespread fad enthusiasm for these diets."[356]

The Atkins Corporation boasts about the supposed ability of the Atkins Diet to significantly raise the level of HDL, or "good" cholesterol on a consistent basis.[357] HDL transports cholesterol out of one's arteries to the liver for disposal or recycling. Though it is actually only a minority of controlled studies on Atkins-like diets that have shown such an effect,[358-371] it is
important to note that the type of HDL increase sometimes seen on these diets is not necessarily healthful.[372] When one eats more garbage (saturated fat and cholesterol) one may need more metabolic garbage trucks (like HDL) to get rid of it. Eating a stick of butter may raise one's HDL, but that doesn't mean chewing one down is good for one's heart. In any case, significantly lowering one's LDL seems more important than significantly raising one's HDL.[373] Though the studies done on low carb diets typically show neither.

Because of these "well-known hazards," when Atkins' book was originally published the Chair of the Nutrition Department at Harvard warned physicians that recommending the Atkins Diet "borders on malpractice."[374]

**The Proof is in the SPECT Scan**

Atkins claimed that one could "Reverse heart disease with filet mignon!"[320] Until the year 2000, all people had were changes in cardiac risk factors like cholesterol to evaluate the impact of the Atkins Diet on the heart. But then a landmark study was published which, for the first and only time, actually measured what was happening to people's arteries on this kind of diet. The results were shocking.

Richard Fleming, M.D., an accomplished nuclear cardiologist, enrolled 26 people into a comprehensive study of the effects of diet on cardiac function. Using echocardiograms, he could observe the pumping motion of the heart, and with the latest in nuclear imaging technology--so-called SPECT scans--he was able to actually directly measure the blood flow within the coronary arteries, the blood vessels that bring blood to the heart muscle and allow it to pump. It is when one of these coronary arteries gets blocked that people have a heart attack.

Fleming then put them all on a low saturated fat, high carbohydrate diet--a whole foods vegetarian diet--the kind that has been proven to not only stop heart disease, but to in some cases actually reverse it, opening up clogged arteries.[375] A year later the echocardiograms and SPECT scans were repeated. By that time, however, 10 of his patients had, unbeknownst to him, jumped on the low carb bandwagon and begun following the Atkins Diet or Atkins-like diets. All of a sudden, Dr. Fleming had an unparalleled research opportunity dropped in his lap. Here he had extensive imaging of 10 people following a low carb diet and 16 following a high carb diet. What would their hearts look like at the end of the year? We can talk about risk factors all we want, but compared to the high carb group, did the coronary heart disease of the patients following the Atkins Diet improve, worsen, or stay the same?

Those sticking to the whole-foods vegetarian diet showed a reversal of their heart disease as expected. Their partially-clogged arteries literally got cleaned out, and blood flow to their hearts through their coronary arteries increased 40%. What happened to those who abandoned the high carb diet and switched over to the Atkins Diet, chowing down on bunless cheeseburgers? Their condition significantly worsened. All that saturated fat and cholesterol in their diet clogged their arteries further--the blood flow to their hearts was cut 40%. Thus, the only study on the Atkins Diet to actually measure arterial blood flow showed widespread acceptance of a high saturated fat diet like Atkins could be heralding a future epidemic of fatal heart attacks.[521] Validation that "If you were trying to damage your heart," wrote the Center for Science in the Public Interest, "you couldn't do much better than to eat a cheeseburger."[376] Maybe filet mignon doesn't work after all.

The blood flow scans have been posted online so people can see the evidence for themselves. The Atkins Diet, according to the American Dietetic Association, is a heart attack waiting to happen.[490]

"We worry about this," explains Dr. James W. Anderson, Professor of Medicine and Clinical Nutrition at the University of Kentucky School of Medicine, "because many of the people who love these diets are men aged 40 to 50, who like their meat. They may be 5 years from their first heart attack. This couldn't be worse for them. Did you know that for 50% of men who die from heart attacks, the fatal attack is their first symptom? They will never know what this diet is doing to them."

Emerging evidence also suggests that ketogenic diets may "create metabolic derangement conducive to cardiac conduction abnormalities and/or myocardial dysfunction"--in other words cause other potentially life-threatening heart problems as well. Ketogenic diets may cause a pathological enlargement of the heart called cardiomyopathy, which is reversible, but only if the diet is stopped in time.[378] The Atkins Corporation denies that Dr. Atkins' own cardiomyopathy--induced heart attack, hypertension, and blocked arteries had anything to do with his diet.[379]

**Saturated Fat and Cholesterol Are Bad for You**

The Atkins Diet restricts foods that prevent disease and encourages foods that promote disease.[380] No matter what Atkins or other diet books tell people, the balance of evidence clearly shows that the intake of saturated animal fat is associated with increased risk of cancer.[381-382] diabetes, and heart disease.[383] For over 40 years, medical reviews have also shown the detrimental impact of dietary cholesterol consumption.[384] Even independent of the effects on obesity, meat consumption itself has been related to an increased risk of coronary heart disease.[385]

The best dietary strategy to reduce one's risk of dying from the number 1 killer in the U.S. is to reduce one's consumption
of saturated fat and cholesterol. The evidence backing this, according to the American Heart Association, is "overwhelming."[386]

Decreasing America's intake of saturated animal fat is the primary reason why Johns Hopkins, supported by 28 other public health schools, launched the Meatless Mondays campaign, trying to get Americans to cut meat out of their diet at least one day of the week.[387] Dr. Jean Mayer, one of the most noted nutrition figures in history--author of over 750 scientific articles, President of Tufts University, recipient of 16 honorary degrees--warned those going on "this faddish high-saturated-fat high-cholesterol [Atkins] diet" that you may be "playing Russian roulette with your heart and with your blood vessels."[388] "The Council," wrote the American Medical Association in their official critique of the Atkins Diet, "is deeply concerned about any diet that advocates an 'unlimited' intake of saturated fats and cholesterol-rich foods."[389]

In return, Atkins accused the American Medical Association of being in the pockets of carbohydrate manufacturers. "You look at the financial records of the AMA and the Harvard School of Nutrition," he said Atkins in an interview, "and see the list of their benefactors, advertisers, and endowers you'll see why they insist on our eating carbohydrates."[486] Interestingly, the Atkins Corporation seems like it's already backpedaling. A front page article in the New York Times revealed that the Atkins Corporation was quietly telling people to restrict their bacon and butter intake, urging people to keep saturated fat intake under 20% of calories.[390] Though nearly every major health organization in the world recommends less than half that amount, Atkins' change in policy does at least show that the Atkins Corporation may be recognizing some of the dangers of their diet.[391]

The Atkins Corporation claimed that their saturated fat guideline was nothing new and that Atkins never said people could eat as much meat as they wanted. They blamed the media for just misconstruing the Atkins Diet as an eat-as-much-meat-as-you-want diet.[392] Really? Atkins wrote, "There is no limit to the amount of...[any kind of meat in any quantity] you can eat... You eat as much as you want, as...[emphasis in original.]"[393] In fact he specifically boasts that his diet "Sets no limit on the amount of food you can eat."[394] Maybe the media got it right.

The Director of Research and Education at Atkins Nutritionals claims that "Saturated fat isn't as much of an issue when carbohydrates are controlled; it's only dangerous in excess when carbs are high." Dr. Frank M. Sacks, a professor of cardiovascular disease prevention at the Harvard School of Public Health, scoffed at such a claim. "What they are saying is ridiculous," he said. The revision down to 20% saturated fat, he added, "has nothing to do with science; it has to do with public relations and politics."[395]

Closing Off His Heart To the Atkins Diet

One can still go to the Atkins website, though, and read how innocuous saturated fat is. One reader asks, "Is it OK for me to consume more than 20% of my calories in the form of saturated fat?" The answer given is "Absolutely."[396]

With this kind of advice, 53-year-old businessman Jody Gorran stayed on the Atkins Diet, and continued to recommend it to his friends even though his cholesterol had shot up 50%. Before starting the Atkins Diet, his cholesterol was excellent, he had no history of heart disease, and an unrelated CT scan showed that his coronary arteries were clean.[397]

For Jody Gorran, it took two years on the Atkins Diet before the crushing chest pain started. By then one of his coronary arteries was 99% blocked and his heart function was suffering for it. An immediate cardiac catheterization and stent placement may well have saved his life. In the opinion of his cardiologist, Gorran might well have otherwise had a massive heart attack and died within a short period of time. Mr. Gorran is now suing the Atkins Corporation, alleging that they "knew, or should have known," that what they were saying about their diet and heart disease risk were false. He is trying to get the corporation to include warning labels on its books, website, and products that a low carbohydrate diet "may be hazardous to your health--check with your physician."[398]

This is not the first time Atkins has been sued. When Dr. Atkins' Diet Revolution first came out, a million-dollar class action suit was brought against Atkins and his publisher to recover medical expenses incurred by the diet's side effects.[399] A Brooklyn Assemblyman on Atkins who nearly died after a heart attack sued Atkins and the publisher for publishing the book "without regard to the safety, truth or accuracy of the statements contained in the book."[400] The book Nutrition Cultism cites 3 occasions in which Atkins was sued and the cases were each settled out of court in favor of the plaintiffs. [401]

"The point is," Gorran said in an NBC News interview, "Dr. Atkins lied to the public. He didn't care. For his ego or for corporate greed, that's what this thing's about."[402] "A successful diet has to be more than simply losing weight" Gorran said on Good Morning America, "A successful diet should not kill you."[403]

Rachel

Most people aren't able to remain on the Atkins Diet long enough to develop osteoporosis, kidney damage or hardening of
Rachel had a crush on a boy in her church. So she started the Atkins Diet to lose weight. In part because she was so nauseated on the diet, she lost 16 pounds. She was hoping being thinner would make her more popular at school. After a brief carbohydrate relapse, she began again “very strictly” but could only stick with it this time for 9 days.

In history class, amidst cheering fellow students for acing a tough question, she collapsed without warning. And then she died. Frenzied attempts to resuscitate her failed. Her doctors blame the Atkins Diet.

The kidneys use minerals such as potassium and calcium to help to rid one's body of toxins like ketones. People on the Atkins Diet are urinating these minerals away. And critically low levels in the blood of these electrolytes can lead to fatal cardiac arrhythmias—lethal heart rhythms. Rachel was on the Atkins Diet, was found on autopsy to have critically low blood levels of both potassium and calcium, and she died of a cardiac arrhythmia. Rachel was previously in good health and had no history of any medical problems.

After ruling out other potential causes, the medical team of child health specialists that investigated her death couldn't help but conclude in their published report, "Sudden Cardiac Death of an Adolescent During Dieting," that the Atkins Diet was the most likely cause of her death.

The chief executive of the Atkins Corporation denied there was a link between the diet and Rachel's death, but implied she should have consulted her doctor before starting the diet. In fact, concern over just such an event led the Director of the Nutrition Department at the esteemed Cleveland Clinic to declare that for people on the Atkins Diet, “Careful monitoring of electrolytes is absolutely essential...” Those who aren't professionally monitored on this kind of diet "are at the greatest risk for dangerous complications."

Dr. Paul Robinson, the Director of Adolescent Medicine at the University of Missouri, who was involved in the investigation of Rachel's death, is afraid that "we're having lots of near misses that we don't know about." He said, "whether there are other people dying and we don't know about it."

"Is the diet safe for teenagers?" Dr. Atkins was asked in an interview. Dr. Atkins replied "The [Atkins] diet is safe for every overweight human being from the age of 18 months." Guided by this doctrine, the Atkins Corporation is trying to make inroads into schools. "I frankly think it's scandalous," said the Director of the Yale Prevention Research Center, "really very dangerous."

One would think a teenager collapsing and dying after just 9 days on the diet might have ruined people's appetite for Atkins, but her death was hardly reported in the American press. When her parents held a press conference to tell their story for the first time and warn others that Atkins "killed our little girl," it was reported in London, Scotland, New Zealand, Australia and South Africa. But out of the 34 reports that made it into the papers around the world about this Missouri teen, only 3 appeared in the U.S. Despite repeated warnings from the American Heart Association, enthusiasm for the Atkins Diet did not seem to wane.

While tending her daughter's immaculately-kept grave, Rachel's mom told a reporter her thoughts on the diet: "I want people to know you can actually die doing something as stupid as this."

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**Down on Atkins Down Under**

Like the tobacco industry, as bad press mounts here in the U.S., the Atkins Corporation is exporting their product overseas. August 2004, for example, they hired a PR firm to "invade Latin America."

Australia seems to be the only nation in which action to counter this move is being taken at a State level. The Victorian Health Minister, supported by the Australian Heart Foundation and the Australian Medical Association, issued a warning to alert people to the dangers of the Atkins Diet and other high-fat fad diets. The government is warning the public about the potential short-term effects—constipation, dehydration, bad breath, low energy and poor concentration—and potential long-term effects such as the increased likelihood of cancer, heart disease, depression, and osteoporosis. "When we know something is bad for people, like smoking," the health minister explained, "then we let people know what the health risks are."

Initially, the government will distribute educational materials in doctors' waiting rooms, gyms and universities, probably followed by advertising in bus shelters and in the media. Australia's chief physician urged all governments to follow suit.

The Atkins empire said that this was the first government to launch a public health campaign against them. Health Canada did propose to ban â€œlow-carbâ€ product claims and the British government did issue a warning against low
carbohydrate diets, saying they were "bad for your health" though it didn't specifically name Atkins.[417] The "US Federal Government officials," Atkins corporate representatives said, "had a much more positive response..."[418] Perhaps "low carb" foods aren't a $30 billion dollar business down under.

Only Under Monthly Clinical Supervision

In a medical journal article entitled "Bizarre and Unusual Diets" the authors warn that the Atkins Diet had such questionable safety that it should "only be followed under medical supervision."[419] But what do doctors know about nutrition? Even though the United States Congress mandated that nutrition become an integrated component of medical education,[420] as of 2004, less than half of all U.S. medical schools have a single mandatory course in nutrition.[421] That explains the results of a study published in the American Journal of Clinical Nutrition that pitted doctors against patients head-to-head in a test of basic nutrition knowledge. The patients won.[422] People off the street seem to know more about nutrition than their doctors.

Doctors can monitor for adverse effects, though. "The Atkins program falls short in insufficiently warning dieters," another review of popular weight loss diets warns, that they "need to be monitored by a physician to ensure his or her safety."[423] According to the Chair of the Nutrition Department at Harvard Medical School, people on Atkins "should be monitored for orthostatic hypotension... dizziness, headaches, fatigue, irritability, gout and kidney failure." And laboratory work should include "blood tests (glucose, blood urea nitrogen, sodium, potassium, chloride, and bicarbonate), urinalysis (specific gravity, pH, protein, and acetone) and a lipid profile. Vital signs... should be monitored at least monthly during a low carbohydrate weight-loss program."[424]

Perhaps one should add the expense of monthly doctor visits to the already high cost of the Atkins Diet, estimated to cost $10,000-$20,000 per year for the food and supplements.[425-428]

The Safer Alternative

Where Atkins Deserved Credit

Once, when Dr. Dean Ornish was being interviewed on Dateline NBC, his interviewer swore that he had lost 50 pounds on an Atkins Diet, ate a steak every day, and felt great. He asked Ornish, "How bad could it be?" When Ornish turned the tables and questioned the host, it came out that, before going on Atkins, the guy seemed to be living off french fries, fried onion rings, cheesecake, and at least five soft drinks per day, everyday. He had since cut all those out and started exercising religiously. Ornish pointed out that the reason he's now feeling better was probably in spite of the steak, not because of it.[429]

The Atkins Director of Education and Research is convinced that researchers at Harvard and elsewhere have made it plain that trans fatty acids have been a killer since the 1930s:[530] Funny then that the 1972 Dr. Atkins Diet Revolution recommended quantities of vegetable shortening,[430] the single the most concentrated source of trans fatty acids in the food supply.[531]

The Atkins Corporation tries to paint Dr. Atkins as a Pioneer and Innovator.[532] Though it was plain that trans fats were a killer since the 1930s it took Dr. Atkins until the 1980's before he flip-flopped and finally took a position against trans fats.[533]

Indeed, just cutting out deep fried foods (most often fried in 100% vegetable--and 100% hydrogenated--oil) from one's diet should alone improve one's cholesterol profile.[1152] Atkins also encouraged everyone to cut out caffeine, eat more heart-healthy nuts and omega-3 fatty acids and does consider daily exercise a critical "non-negotiable" component to his plan.[431]

Anyone completely cutting out sugary soda, pastries, ice cream, cookies, cake, candy, kids' cereals, and Snackwells is probably going to feel better. But does one need a 300-page diet book to tell us that? Anything that can give Krispy Kreme's corporate profits that glazed look[432] is a good thing for America's health.

For those who don't remember, Snackwells were Nabisco's line of low-fat and fat-free junk food that went from zero to a billion dollars in revenues in four short years, in effect becoming America's most popular cookie. When Snackwells' fat-free Devil's Food Cookie Cakes first appeared, demand was so high that Nabisco had to ration them out to stores and fights broke out, forcing store managers to keep boxes of the cookie under lock and key.[433]

People were mistaking low-fat for low-calorie. The intention of the government's recommendation to cut down on fat was to get people to cut down on items like meat and switch to foods that are naturally low in fat--like beans, whole grains, fruits and vegetables. These don't have much of a profit margin though, so the food industry took advantage of the new guidelines to market low-fat junk food like Snackwells cookies, swapping fat for sugar. Each cookie was basically just
white flour, no fiber and two spoonfuls of sugar. Even bags of jellybeans started boasting “fat-free.” A similar phenomenon is now happening with low carb junk food. A new Atkins-friendly ice cream, for example, has almost twice the calories of regular ice cream (and of course twice the fat).[434] “It's Snackwells all over again,” noted one WebMD Medical News article.[435] Junk food—low fat or low carb—is still junk food.

People also may feel better on the Atkins Diet because he tells people to stop drinking cow's milk. Most people on the planet are lactose intolerant (and may not even know it).[437] That change alone should make a segment of the people trying Atkins feel better. In addition to those who are lactose intolerant, other easy born-again Atkins converts might be those with an actual dairy allergy or the one out of every few hundred Americans who is allergic to wheat.[438]

Even at his strictest, Atkins "allowed" two small salads a day. Although they can only be a cup of "loosely" packed greens each, that's sadly more salad than many non-Atkins Americans may get. Then again, Atkins' "spinach salad" recipe calls for an entire pound of bacon and 5 eggs. No croutons, of course—"use crumbled fried pork rinds instead."[439]

Atkins even recommended eating one’s greens organic, dark, and leafy,[440] although the word “kale” does not seem to frequent the book sleeve. Unfortunately, people may ignore the few reasonable suggestions that Atkins made, and just use his low carb phenomenon as an excuse to eat whatever they want.

**The Answers are No and No**

There seem to be two Atkins Diets: one that he describes in his books (particularly in later editions), and the one the public thinks he describes in his books. How many Atkins Dieters, for example, only eat free-range organic bacon?

A recent study of 11,000 people found that only one in four of those claiming to be on a low carb diet were actually significantly cutting carbs at all.[441] Another survey, commissioned by former Surgeon General C. Everett Koop's organization Shape Up America!, found that most people claiming to be on Atkins, or another of the low carb fad diets, didn’t seem to even know where carbs were found.[442] Most didn’t know, for example, that tomatoes were high in carbs. Thankfully, about half of them didn’t know apples had a lot of carbs, and 1 in 6 even thought steak was a carbohydrate.[443] Thankfully, most people on Atkins are actually not on Atkins.

Despite the softening of his stance on whole grains and many vegetables, Atkins still made saturated fat-laden meat and dairy the centerpiece of his diet. The Atkins Diet therefore remains dangerous even when "used as directed."

Isn’t it possible to do the Atkins Diet healthfully, though? Isn’t there some way to modify it to make it safer? Those exact questions were asked of the editors at the Tufts University Health and Nutrition Letter by one of the University’s Vice Presidents.

After trying their best, the editorial staff at the Tufts Letter couldn't help but conclude, “So, as to whether it's possible to follow the Atkins Diet healthfully or tweak it to make it safe and healthful, the answers are no and no” (emphasis in original).[444]

**Too Good to Be True**

What kind of diet can cause birth defects? Or blindness? Or require 65 supplements? Or monthly medical checkups, where the monitoring of electrolytes is considered “absolutely essential?” Is it too much to ask that one’s diet facilitate instead of debilitate physical activity? (Here in Boston there has yet to be a night of pork-rind loading before the Marathon.) What kind of diet may require prescriptions to deal with the side effects? What kind of diet has side effects at all?

Rational people go on irrational diets because “they're desperate,” says Kelly Brownell, Director of Yale University's Center for Eating and Weight Disorders. "If you're a person with an overweight body living in a thin-obsessed world... something that offers a miracle is highly attractive."

The Director of Nutrition at the Center for Science in the Public Interest is dumbfounded that the high-fat regimes have caught on. “With all the evidence that saturated fat promotes heart disease, it's almost unbelievable to me that people could successfully tell people to eat bacon, eggs, ground beef, cheese and cream,” she says. "It really shows that people care more about how they look than how healthy they are.”[445]

Obesity shouldn't be a cosmetic or moral issue, but it does remain a health issue. Obesity, as defined by the Institute of Medicine, is “an important chronic degenerative disease that debilitates individuals and kills prematurely.”[447] Obesity continues to contribute to hundreds of thousands of deaths in the U.S. every year.[448-451] Losing weight is important, but the goal should be to lose weight in a way that enhances health rather than in ways that may harm it. People also use cocaine, amphetamines and tobacco to control their weight—not health promoting solutions to the problem.
The Consumer Guide concluded that the Atkins Diet “owes its appeal, like pornography, to the naughtiness of the approach, to the titillation we all feel in doing something which we think is not right.”[452] Diet gurus like Atkins—the “bad boy of diets”[453]—gave “his readers what they wanted to hear,” says James Hill, Director of the University of Colorado Center for Human Nutrition. Asks one Atkins disciple, “Who wouldn’t like a diet that allowed fried eggs and bacon and all the steak you can eat?”[454] “But what people want to hear,” Dr. Hill adds, “is killing them.”[455]

Atkins is Based on a Half-Truth

Despite U.S. attempts to stall[456] and sabotage[457] the World Health Organization’s report on diet (as they tried to do with tobacco)[458] in May 2004 the WHO Global Strategy on Diet, Physical Activity and Health was unanimously endorsed by all 192 Member States of the United Nations. The report blames the growing pandemic of global chronic disease in part on “greater saturated fat intake (mostly from animal sources), reduced intakes of complex carbohydrates and dietary fiber, and reduced fruit and vegetable intakes,” in other words, they place blame for the global epidemic of obesity, cancer, heart disease and diabetes on exactly the kind of diet Atkins’ books recommend. As the Harvard Health Letter put simply, the Atkins Diet “is not a healthy way to eat.”[459] The World Health Organization is calling for limiting the consumption of saturated animal fats[460] and “increasing the consumption of fruits, vegetables, legumes [beans, peas and lentils], whole grains and nuts.”[461]

The evidence to support their position is “overwhelming.”[462] After 11 years following 11,000 people, for example, researchers found that eating whole grains may help people live longer. That did not seem to be the case for refined grains, though.[463] And the Atkins Diet is based on that half-truth.

Atkins was right in going “against the grain” in the case of refined carbohydrates like white flour and sugar. But he was wrong to restrict good carbs—the carbs found in whole unrefined foods—like those recommended in the WHO’s report: “fruits, vegetables, legumes, whole grains and nuts.” A bunless burger is not the answer to a fat-free doughnut.

Just because jellybeans and Wonder Bread are not health-promoting foods does not mean one has to switch to pork rinds and bacon. Let’s not throw the wheat germ out with the wheat.

You Can Have Your Carbs and Eat Them Too

What evidence do we have that “good” carbs are good? Every single long-term prospective study ever performed on the foods that the Atkins Diet restricts—fruits, vegetables, nuts and whole grains—show that they protect people from the nations’ biggest killer: heart disease.[464] Harvard studied 75,000 women for a decade and the results suggest that the more whole grains people eat—like brown rice and whole wheat bread—the lower their risk of having a heart attack.[465] Harvard studied 40,000 men for a decade and suggested that eating whole grains may cut one’s risk of developing diabetes by more than half.[466] The only thing wrong with whole grains, perhaps, is that they may not sell as many books.

Atkins seemed to think that fruit was the worst thing since sliced bread. Fruit consumption alone, however, has been linked to lower rates of numerous cancers[467] and may reduce heart disease mortality, cancer and total mortality.[468] The World Health Organization blames low fruit and vegetable consumption on literally millions of deaths worldwide.[469] Everyone should eat more fruits and vegetables as if their lives depended on it.

The National Cancer Institute’s recommendation is now up to nine servings of fruits and vegetables every day. While Atkins preached to restrict fruit and vegetable intake, what Americans really need is more fruits and veggies, not less.[470]

Lose Weight Without Losing Your Health -- or Your Life

Life-long weight control is a marathon; fad diets are sold on the 100-yard dash. The UC Berkeley School of Public Health’s #1 rated[471] newsletter’s “Bottom Line” on Atkins: “Bottom Line: If you follow the Atkins Diet, you will lose weight—but it could be dangerous beyond a few weeks. All fad diets get you to cut down on calories, usually by limiting the kinds of food you can eat, so of course you lose weight. Most, like the Atkins Diet, deny that ‘calories count,’ but nonetheless trick you into cutting way down on calories by distracting you with strange rules and psychological/biochemical babble. As with all crash diets, keeping the weight off is the hard part. Virtually all crash dieters eventually gain the weight back, unless they learn the basics of healthy eating, which crash diets do not teach.”[472] Diets are not something to be followed for days, weeks, or months. They should form the basis of everyday food choices for the rest of one’s life.

So what are the “basics of healthy eating?” According to the American Dietetics Association, “The overwhelming majority of studies reported to date including both epidemiological and laboratory approaches, suggest that eating carbohydrate-rich foods such as vegetables, fruits, legumes and whole grains, and limiting saturated fat intake, over a lifetime, is associated with substantially reduced risk for vascular disease and some cancers.”[473] It may be no coincidence that the longest-living people in the world, even by some accounts outlasting the Okinawa Japanese,[474] are the California Seventh Day Adventist vegetarians.[475]
Every study of the Atkins diet over six months in duration found that the Atkins diet failed to significantly outperform the exact diet Atkins blamed our entire obesity epidemic on.[476] Why not, then, choose a healthier diet?

Fewer than 20% of Americans trying to lose weight follow what's considered the optimal diet plan for weight control, the one most proven to be safe and effective for losing weight, keeping the weight off and promoting health—a diet low in saturated animal fats, and high in fruits, vegetables and high-fiber-containing carbohydrates like beans and whole grains.[477] How convenient that the most healthful diet also seems to be the one most successful in controlling one's weight.[478]

To lose weight, one can cut down on calorie intake by restricting the amount of food one eats, or one can transition away from eating junk food—foodstuffs long on calories but short on nutrition—toward eating food that is nutrient-dense, but relatively calorie-dilute: foods like fruits, vegetables, beans and whole grains. One can add nuts to the list as well, since despite their caloric density, a 2003 review concluded eating nuts every day might actually help one maintain or even lose weight.[479] People placed on nutrient-dense, calorie-dilute plant-based diets tend not to complain of hunger, but of having "too much food."[480-482]

The healthy alternative to the Atkins Diet is not a fat-free diet, but a fad-free diet. "Nobody wants to hear this," groaned Dr. James W. Anderson in an interview. Anderson is a Professor of Medicine and Clinical Nutrition at the University of Kentucky School of Medicine. "People lose weight [on the Atkins Diet], at least in the short term. I am not arguing with that. But this is absolutely the worst diet you could imagine for long-term obesity, heart disease, and some forms of cancer. If you wanted to find one diet to ruin your health, you couldn't find one worse than Atkins'."[483]

The optimal diet is one centered around good carbohydrates (unrefined), good fats (like nuts) and the best sources of protein, which, according to the Harvard School of Medicine, are "beans, nuts, grains and other vegetable sources of protein..."[484] In other words, by eating a whole-food plant-based diet one can control one's weight without risking one's health—or one's life. We don't have to mortgage our health in order to lose weight.

**Fading Fad**

Thankfully the fad seems to be fading once again. Based on surveys of thousands of American adults, the low carb craze seems to have peaked around January 2004 and is expected to continue to drop according to food-industry analysts at Morgan Stanley.[499] Most industry analysts and consultants are now suggesting that this latest low carb wave is indeed a passing fad.[500] According to Fortune magazine, data show that the number of Americans on a low carb diet has fallen 25% since January.[485]

The American public seems to be finally waking up to the truth. In one survey, for example, fewer than one in five consumers surveyed said they would even consider purchasing a low carb product. Reasons given for not choosing low carb included beliefs that low carb diets were neither healthy nor effective.[501]

Declining demand is starting to affect the low carb corporate bottom-line. Food gants clamored onto the bandwagon, Maclean's noted,"just as its wheels started to fall off."[513] Food manufacturers are being stuck with backlogs of low carb products[514] and a number of planned low carb lines have been scuttled thanks to disappointing sales.[503] Articles with titles like this one from Forbes Magazine: "A low-carb retailing disaster: A pack of entrepreneurs chased the low-carb dream--over a cliff" have started appearing with more frequency in the business journals.[504] "There's been a bloodbath in the industry," admits the head of the low-carb business association.[1153] The Wall Street Journal calls this phenomenon the "food-fad effect."[506]

"It reminds me a lot of investors who around 1999 thought it would be a great time to invest in tech funds, and then proceeded to lose their pants," says the executive editor of an industry trends publication. "The pattern is very, very similar."[502]

A year ago, the Atkins empire couldn't crank out products fast enough. Now, retailers are discounting them.[505] By the second quarter of 2004, low carb product sales growth was cut in half.[506] Layoffs at the Atkins Corporation started in September 2004.[1154]

Food industry researchers conclude that consumers seem to be finally wising up to the health risks. "It defied logic," said one industry expert, "Bacon is better for you than orange juice. Yeah, right."[1153]

Or as one Wall Street analyst explained, "Have you ever tried low carb bread?"[485]

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