

[ESC] tap the ESC
key to exit

 about this
manifesto

 email this
manifesto

What's wrong with Atkins?



A health advisory from the Physicians
Committee for Responsible Medicine

Recent media reports have publicized the
short-term weight loss that sometimes occurs
with the use of low-carbohydrate weight-loss
diets. Some of these reports have distorted
medical facts and have ignored the potential
risks of such diets. *continued* ►

Health Risks of Low-Carbohydrate Diets

Recent media reports have publicized the short-term weight loss that sometimes occurs with the use of low-carbohydrate weight-loss diets. Some of these reports have distorted medical facts and have ignored the potential risks of such diets. Past experience with the fen-phen drug combination and other weight-loss regimens has shown that some people may disregard even serious long-term health risks in hopes of short-term weight loss.

The American Heart Association, American Dietetic Association, and the American Kidney Fund have all published statements warning about the various dangers associated with low-carbohydrate, high-protein diets.

NOTE: This manifesto does not provide medical or legal advice. It is for informational purposes only.

We would like to notify you of (1) the potential risks from the long-term use of low-carbohydrate, high-protein diets, (2) currently circulating misunderstandings and deceptive statements made in support of such diets, and (3) the establishment of a registry for individuals who feel they may have been harmed as a result of following a low-carbohydrate, high-protein diet.

What Is a Low-Carbohydrate Diet?

The theory behind low-carbohydrate diets is that if dieters avoid foods containing carbohydrate—that is, starches or sugars—they will shed pounds. Such diets eliminate or dramatically restrict the intake of fruit, fruit juice, starchy vegetables, beans, bread, rice, cereals, pasta and other grain products, and all other foods containing carbohydrate, leaving a limited diet of foods that contain primarily fat and protein: meat, cheese, nonstarchy vegetables, and very little else. As the diet proceeds, the carbohydrate restriction relaxes somewhat, but fatty, high-protein foods continue to dominate the dieter's plate.

Some reports have **distorted** medical **facts** and have **ignored** the **potential risks** of such diets.

Despite anecdotal accounts of seemingly dramatic weight loss, the effect of low-carbohydrate diets on body weight is similar to that of other weight-reduction diets. In research studies at the University of Pennsylvania and at the Philadelphia Veterans Affairs Medical Center, the average participant lost weight during the first six months on the diet, but regained some of this weight during the next six months so that the net weight loss after one year (15.8 pounds in the University of Pennsylvania study and 11.2 pounds in the VA study) was not significantly different from that seen with other diets used for comparison. This degree of weight loss is not greater than that

which occurs with programs using low-fat, vegetarian diets. In Dean Ornish's program for reversing heart disease, for example, a combination of a low-fat, vegetarian diet and exercise led to an average weight loss of 22 pounds in the first year, along with dramatic reductions in cholesterol levels and reversal of existing heart disease. Five years later, much of that benefit had been retained. Studies of whether weight loss from low-carbohydrate diets is maintained for more than one year have not been performed.

The effect of low-carbohydrate diets on body weight is similar to that of other weight-reduction diets.

A review of 107 research studies on various low-carbohydrate, high-protein weight-loss diets concluded that weight loss on these diets is not due to any special effect of restricting carbohydrate; rather, weight loss depended on the extent to which the dieters' caloric intake fell and how long they continued with their regimens. Other reports have also found calorie reduction to be the most important factor in weight loss, with no special weight-loss advantage from the restriction of carbohydrates.

Some low-carbohydrate diet books, such as those promoting the Atkins diet, describe how a diet devoid of carbohydrate forces the body to turn to other fuels for energy. That means getting energy from fats and protein in the diet or from body fat. When fats in the diet or in body fat are used for energy, they produce compounds

called ketones, and low-carbohydrate dieters sometimes check for the presence of ketones in their urine as a sign that they have managed to eliminate carbohydrate. It turns out, however, that, in controlled trials, the degree of ketosis does not appear to influence weight-loss speed.

Nutritional Concerns

Low-carbohydrate diets typically include quantities of cholesterol, fat, saturated fat, and protein that exceed the recommended safe limits set by the National Academy of Sciences, and are often low in fiber and other important dietary constituents. The Nutrition Committee of the Council on Nutrition, Physical Activity, and Metabolism of the American Heart Association states, “High-protein diets are not recommended because they restrict healthful foods that provide essential nutrients and do not provide the variety of foods needed to adequately meet nutritional needs. Individuals who follow these diets are therefore at risk for compromised vitamin and mineral intake, as well as potential cardiac, renal, bone, and liver abnormalities overall.”

A nutrient analysis is presented below for the sample menus for the three stages of the Atkins diet as described in Dr. Atkins’ New Diet Revolution (M. Evans & Co., 1999), pp. 257–259, using Nutritionist V., Version 2.0, for Windows 98 (First DataBank, Inc., Hearst Corporation, San Bruno, CA). The menus analyzed were as follows:

Typical Induction Menu

BREAKFAST

Bacon slices, 4 slices

Coffee, decaf, 8 ounces

Scrambled eggs, 2

LUNCH

Bacon cheeseburger, no bun

Bacon, 2 slices

American cheese, 1 ounce

Ground beef patty, 6 ounces

Small tossed salad, no dressing

Seltzer water

DINNER

Shrimp cocktail, 3 ounces

Mustard, 1 teaspoon

Mayonnaise, 1 tablespoon

Clear consommé, 1 cup

T-bone steak, 6 ounces

Tossed salad

Russian dressing

Sugar-free Jell-O, 1 cup

Whipped cream, 1 tablespoon

Typical Ongoing Weight Loss Menu

BREAKFAST

Western Omelet:

Eggs, 2

Cheddar cheese, 2 ounces

Bell peppers, 1 tablespoon

Onion, 1 tablespoon

Ham bits, 1/10 cup

Butter, 1 tablespoon

Tomato juice, 3 ounces

Crispbread, 2 carbo grams (1/4 slice)

Tea, decaf, 8 ounces

LUNCH

Chef's salad with ham, cheese,
and egg with zero-carb dressing

Iced herbal tea, 8 ounces

DINNER

Subway seafood salad, 1 item

Poached salmon, 6 ounces

Boiled cabbage, 2/3 cup

Strawberries, 1 cup

4 tablespoons cream

Typical Maintenance Menu

BREAKFAST

Gruyere and spinach omelet:

Eggs, 2

Gruyere cheese, 2 ounces

Spinach, 1 cup cooked

Butter, 1 tablespoon

1 cantaloupe

Crispbread, 4 carbo grams (1 slice)

Coffee, decaf, 8 ounces

LUNCH

Roast chicken, 6 ounces

Broccoli, 2/3 cup, steamed

Green salad

Creamy garlic dressing

Club soda

DINNER

French onion soup, 1 cup

Salad with tomato, onion, carrots

Oil and vinegar dressing

Asparagus, 1 cup

Baked potato, 1 small with sour cream

(2 tablespoons) and chives

Veal chops, 1 serving

Fruit compote, 1+ cups (generous cup)

Wine spritzer, 16 ounces

Nutrient Analysis of Atkins Sample Diets

	ATKINS INDUCTION	ATKINS WEIGHT LOSS	ATKINS MAINTENANCE
Energy, kcal	1759	1505	2173
Protein, g (% energy)	143 (33%)	120 (32%)	135 (25%)
Carbohydrate, g (% energy)	15 (3%)	36 (10%)	116 (22%)
Fat, g (% energy)	125 (64%)	97 (58%)	110 (45%)
Alcohol, g (% energy)	0	0	26 (8%)
Saturated fat, g	42	45	38
Cholesterol, mg	886	885	834
Fiber, g	2	7	18
Calcium, mg (% DV)	373 (37%)	952 (95%)	1019 (102%)
Iron, mg (% DV)	15 (86%)	10 (54%)	13 (70%)
Vitamin C (% DV)	20 (33%)	140 (234%)	242 (404%)
Vitamin A, RE (% DV)	799 (80%)	1525 (153%)	2521 (252%)
Folate, µg (% DV)	143 (36%)	268 (67%)	584 (146%)
Vitamin B-12, 5g (% DV)	11 (191%)	8 (132%)	5 (80%)
Thiamin, mg (% DV)	0.7 (48%)	1.1 (76%)	1.0 (64%)

*% Daily values are based on a 2000-kcal diet deriving 30% of total energy from fat (10% each from saturated, monounsaturated, and polyunsaturated fats), and 15% total energy from protein.

In addition to having very high protein content and low carbohydrate content, the menus at all three stages are very high in saturated fat and cholesterol. The menus are also low in fiber. In addition, these sample menus do not reach Daily Values for calcium and iron. The Induction menu does not meet the Daily Values for vitamin C, vitamin A, folate, and thiamin. The Weight Loss menu is low on folate and thiamin.

Health Concerns

No published studies have addressed the long-term effects of low-carbohydrate diets. The longest studies have followed dieters for only 12 months, which is not sufficient to assess whether dieters are at risk for the problems seen in studies of general populations consuming large amounts of meat, fatty dairy products, and the cholesterol, saturated fat, and animal protein they contain. However, long-term studies of the general population following a variety of diets and short-term studies of individuals on low-carbohydrate diets raise important concerns, which are outlined below:

- 1 COLON CANCER.** Colon cancer is one of the most common forms of cancer in North America and Europe and is among the leading causes of cancer-related mortality. Long-term daily intake of meat, particularly red meat, such as beef, pork, or lamb (as is common in Western countries), is associated with approximately a three-fold increased risk of colon cancer.

The 1997 report of the World Cancer Research Fund and American Institute for Cancer Research, entitled Food, Nutrition, and the Prevention of Cancer, concluded that, based on available evidence, diets high in red meat are probable contributors to colon cancer risk. In addition, meat-heavy diets are often low in dietary fiber, which protects against cancer. Low-carbohydrate diets typically include red meats among their foods recommended for daily consumption, but no studies have yet been conducted to see whether low-carbohydrate dieters do indeed have the same increased long-term cancer risk seen with other populations eating meat-heavy diets.

Long-term daily **intake of meat...**
is **associated** with approximately a **three-fold**
increased **risk of colon cancer.**

2 HEART DISEASE. Generally speaking, weight loss tends to reduce cholesterol levels, while saturated fat and cholesterol tend to raise them. Consequently, the effect on cholesterol levels of a low-carbohydrate weight-loss diet that includes saturated fat and cholesterol can vary from person to person. In some studies, about 30 percent of people on low-carbohydrate diets showed an increase in cholesterol levels, despite their weight loss.

In a low-carbohydrate diet study conducted at Duke University, funded by the Atkins Center for Complementary Medicine, LDL (“bad”) cholesterol levels fell in 29 of the

41 study completers, as would be expected from weight loss along with the various supplements used in the study. However, LDL levels rose in 12 participants by an average of 18 mg/dl (the increases ranged from 4 to 53 mg/dl). One participant had an LDL increase from 123 mg/dl to 225 mg/dl (normal LDL values are typically described as <100 mg/dl, although some investigators have called for lower limits).

We recommend **caution** when reading favorable press accounts of **the effect of low-carbohydrate diets on cholesterol** levels.

The participant was then treated with a “cholesterol-lowering nutritional supplement,” and the LDL dropped to 176 mg/dl, which is still far above recommended levels. In a subsequent Duke University study, two low-carbohydrate diet participants dropped out of the study because of elevated serum lipid levels (one had an increase in LDL cholesterol from 182 mg/dl to 219 mg/dl in four weeks; the second had an increase from 184 mg/dl to 283 mg/dl in three months), and a third developed chest pain and was subsequently diagnosed with coronary heart disease. In 30 percent of participants, LDL cholesterol increased by more than 10 percent. The effect of the diet on HDL (“good”) cholesterol levels is not consistent.

We recommend caution when reading favorable press accounts of the effect of low-carbohydrate diets on cholesterol levels. The two Duke University studies cited above

are sometimes cited as evidence that low-carbohydrate diets reduce LDL (“bad”) cholesterol and increase HDL (“good”) cholesterol. However, these studies did not test a low-carbohydrate diet alone. Rather they tested the diet along with regular exercise and various nutritional supplements, including flax oil, borage oil, fish oil, vitamin E, chromium picolinate, and a “multivitamin formula” containing niacin, vitamin C, and other nutrients. Exercise and supplements would be expected to influence cholesterol levels on their own, apart from the effects of the diet.

Some evidence suggests that even a **single fatty meal** may **adversely affect** the compliance of arteries.

One particular danger of the press promotion of low-carbohydrate diets is the suggestion that meats and dairy products that are high in saturated fat and cholesterol do not pose the risks that scientists have long said they do. However, abundant evidence shows the risks of such foods. In fact, some evidence suggests that even a single fatty meal (e.g., a ham-and-cheese sandwich, whole milk, and ice cream) may adversely affect the compliance of arteries, increasing the risk of heart attacks after meals. Low-carbohydrate diet promoters have argued that the risks of diets high in saturated fat and cholesterol may be disregarded when the diet is also very low in carbohydrate. However, no long-term studies have tested this conjecture.

- 3 IMPAIRED KIDNEY FUNCTION.** Studies of the Atkins diet and other low-carbohydrate, high-protein diets have not been of sufficient duration to evaluate their potential to affect kidney function. However, reason for concern comes from studies of the general population, in which diets high in animal protein are associated with reduced kidney function over time. Harvard researchers reported that animal protein intake is associated with decline in kidney function, based on observations in 1,624 women participating in the Nurses' Health Study. The good news is that the damage to the kidneys was found only in those who already had reduced kidney function at the study's outset. The bad news is that as many as one in four adults in the United States may already have reduced kidney function, and the percentage is considerably higher for those over 40

High **animal protein** intake is largely **responsible** for the **high prevalence** of **kidney stones**.

or who have hypertension. Mild kidney impairment is also found in approximately 40 percent of individuals with diabetes. This suggests that many people who have kidney problems are unaware of that fact and do not realize that high-protein diets may put them at risk for further deterioration. The kidney-damaging effect was seen only with animal protein. Plant protein had no harmful effect.

The American Academy of Family Physicians notes that high animal protein intake is largely responsible for the high prevalence of kidney stones in the United States and other developed countries and recommends protein restriction for the prevention of recurrent kidney stones.

4 **COMPLICATIONS OF DIABETES.** In diabetes, kidney and heart problems are particularly common. The use of diets that may further tax the kidneys and may reduce arterial compliance is not recommended.

No studies of low-carbohydrate diets have been of sufficient duration to assess their potential long-term effects on individuals with diabetes. Because controlling blood cholesterol levels and protecting kidney function are essential for individuals with diabetes, health authorities recommend choosing diets that are rich in vegetables and fruits, while limiting saturated fat, cholesterol, and animal protein.

5 **OSTEOPOROSIS.** High intake of animal protein is known to encourage urinary calcium losses and has been shown to be associated with increased fracture risk in research studies involving various populations. Two studies have examined the effects of low-carbohydrate diets on calcium losses. A Duke University study showed that urinary calcium losses rose significantly in individuals following a low-carbohydrate, high animal-protein diet for six months. Similarly, the loss of calcium was demonstrated in a low-carbohydrate diet study at the University of Texas. In the maintenance phase of the diet, urinary calcium losses were 55 percent higher than normal. The researchers concluded that the diet presents a marked acid load to the kidney, increases the risk for kidney stones, and may increase the risk for bone loss. No

studies of low-carbohydrate, high-protein diets have yet been of sufficient duration to measure long-term bone loss.

6 OTHER ADVERSE EFFECTS. The following adverse effects were noted in a six-month study of a low-carbohydrate diet, in addition to the effects on cholesterol levels noted above:

Constipation	68 percent
Headache.....	60 percent
Bad breath	38 percent
Muscle cramps	35 percent
Diarrhea	23 percent
General weakness	25 percent

Misunderstandings and Deceptive Statements

Some individuals may be confused or misled about important dietary issues based on the following inaccurate claims:

“High-protein diets cause dramatic weight loss.”

The weight loss typically occurring with high-protein diets—approximately 11–16 pounds over the course of a year —is not significantly different from that seen with other weight-reduction regimens or with low-fat, vegetarian eating patterns.

“Fatty foods must not be fattening, because fat intake fell during the 1980s, just as America’s obesity epidemic began.”

Some news stories have encouraged the public to discount health warnings about the amount of fat (especially saturated fat) in the diet, suggesting that fat intake declined during the 1980s, an era during which obesity became more common. However, food surveys from the National Center for Health Statistics from 1980 to 1991 show that daily per capita fat intake did not drop during that period. For adults, fat intake averaged 81 grams in 1980 and was essentially unchanged in 1991. While the American public added sodas and other non-fat foods to the diet, forcing the percentage of calories from fat to decline slightly, the actual amount of fat in the American diet did not drop at all. What did change was portion size. A report in the *Journal of the American Medical Association* confirmed that meal sizes have steadily risen over recent decades.

A notable contributor to fat and calorie intake in recent years is cheese consumption. Per capita cheese consumption rose from 15 pounds in 1975 to more than 30 pounds in 1999. Typical cheeses derive approximately 70 percent of energy from fat and are a significant source of dietary cholesterol.

“Fat and cholesterol have nothing to do with heart problems.”

Abundant scientific evidence establishes that dietary fat and cholesterol are associated with increased cardiovascular disease risk. Nonetheless, some popular-press articles have incorrectly suggested that evidence supporting this relationship is weak and inconsistent.

In addition, the late diet-book author Robert Atkins claimed in interviews that, despite his having followed a fatty, high-cholesterol diet for decades, he did not have artery blockages. The net result may be that dieters believe they can safely disregard well-established contributors to heart disease. After Dr. Atkins' death, his widow and his personal physician revealed that Dr. Atkins had indeed had coronary artery blockages, although they have maintained that these blockages had nothing to do with his death.

“Meat doesn’t boost insulin; only carbohydrates do that, and that’s why they make people fat.”

Popular books and news stories have encouraged individuals to avoid carbohydrate-rich foods, suggesting that high-protein foods will not stimulate insulin release. However, contrary to this popular myth, proteins stimulate insulin release, just as carbohydrates do. Clinical studies indicate that beef and cheese cause a bigger insulin release than pasta, and fish produces a bigger insulin release than popcorn.

Also, it is important to realize that different carbohydrate-rich foods have very different effects. Most cause a gradual, temporary, and safe rise in blood sugar after meals. Beans, green leafy vegetables, and most fruits are in this healthful category. The main exceptions are large baking potatoes, white bread, and sugary foods, which can cause an overly rapid rise in blood sugar.

“People who eat the most carbohydrates tend to gain the most weight.”

Popular diet books point out that cutting out carbohydrate-containing foods may lead to temporary weight loss. This fact has been misinterpreted as suggesting that carbohydrate-rich foods are the cause of obesity. In epidemiological studies and clinical trials, the reverse has been shown to be true. Many people throughout Asia consume

large amounts of carbohydrate in the form of rice, noodles, and vegetables and generally have lower body weights than Americans—including Asian Americans—who eat large amounts of meat, dairy products, and fried foods. Similarly, vegetarians, who generally follow diets rich in carbohydrates, typically have significantly lower body weights than omnivores.

High-Protein Diet Registry Established

In order to assist patients and consulting clinicians, the Physicians Committee for Responsible Medicine has established a registry for individuals who have begun low-carbohydrate, high-protein diets or who may have been prescribed them by practitioners.

<http://atkinsdietaalert.org/registry.html>

REFERENCES:

1. St Jeor ST, Howard BV, Prewitt TE, Bovee V, Bazzarre T, Eckel RH; Nutrition Committee of the Council on Nutrition, Physical Activity, and Metabolism of the American Heart Association. Dietary protein and weight reduction: a statement for health care professionals from the Nutrition Committee of the Council on Nutrition, Physical Activity, and Metabolism of the American Heart Association. *Circulation* 2001;104:1869-74.
2. American Heart Association Web site:
<http://www.americanheart.org/presenter.jhtml?identifier=11234> (accessed March 17, 2004).

3. American Dietetic Association Web site, http://www.webdietitians.org/Print/92_nfs0200b.cfm (accessed March 17, 2004).
4. American Kidney Fund Web site, http://216.248.130.102/AboutAKF/Newsroom_020425.htm (accessed March 17, 2004).
5. Foster GD, et al. A randomized trial of a low-carb diet for obesity. *N Engl J Med* 2003;348:2082–90.
6. Stern L, Iqbal N, Seshadri P, et al. The effects of low-carbohydrate versus conventional weight loss diets in severely obese adults: one-year follow-up of a randomized trial. *Ann Int Med* 2004;140:778–85.
7. Ornish D, Brown SE, Scherwitz LW, Billings JH, Armstrong WT, Ports TA. Can lifestyle changes reverse coronary heart disease? *Lancet* 1990;336:129–33.
8. Ornish D, Scherwitz LW, Billings JH, Brown SE, Gould KL, Merritt TA, Sparler S, Armstrong WT, Ports TA, Kirkeeide RL, Hogeboom C, Brand RJ. Intensive lifestyle changes for reversal of coronary heart disease. *JAMA* 1998;280:2001–7.
9. Bravata DM, Sanders L, Huang J, et al. Efficacy and safety of low-carbohydrate diets: a systematic review. *JAMA* 2003;289:1837–1850.
10. Kennedy ET, Bowman SA, Spence JT, Freedman M, King J. Popular diets: correlation to health, nutrition, and obesity. *J Am Diet Assoc.* 2001;101:411–20.
11. Brehm BJ, Seeley RJ, Daniels SR, D'Alessio DA. A randomized trial comparing a very low carbohydrate diet and a calorie-restricted low fat diet on body weight and cardiovascular risk factors in healthy women. *J Clin Endocrinol Metab* 2003;88:1617–1623.
12. Willett WC, Stampfer MJ, Colditz GA, Rosner BA, Speizer FE. Relation of meat, fat, and fiber intake to the risk of colon cancer in a prospective study among women. *N Engl J Med* 1990;323:1664–72.

13. Giovannucci E, Rimm EB, Stampfer MJ, Colditz GA, Ascherio A, Willett WC. Intake of fat, meat, and fiber in relation to risk of colon cancer in men. *Cancer Res* 1994;54:2390–7.
14. World Cancer Research Fund/American Institute for Cancer Research. Food, Nutrition, and the Prevention of Cancer: a global perspective. World Cancer Research Fund/American Institute for Cancer Research, Washington, DC, 1997, pp. 216–51.
15. Dattilo AM, Kris-Etherton PM. Effects of weight reduction on blood lipids and lipoproteins: a meta-analysis. *Am J Clin Nutr* 1992;56:320–8.
16. Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). National Cholesterol Education Program, National Heart, Lung, and Blood Institute, National Institutes of Health. NIH Publication No. 02–5212, September, 2002.
17. LaRosa JC, Fry AG, Muesing R, Rosing DR. Effects of high-protein, low-carbohydrate dieting on plasma lipoproteins and body weight. *J Am Dietetic Association* 1980;77:264–70.
18. Westman EC, Yancy WS, Edman JS, Tomlin KF, Perkins CE. Effect of 6-month adherence to a very low carbohydrate diet program. *Am J Med* 2002;113:30–6.
19. Yancy WS, Olsen MK, Guyton JR, Bakst RP, Westman EC. A low-carbohydrate, ketogenic diet versus a low-fat diet to treat obesity and hyperlipidemia. *Ann Int Med* 2004;140:769–777.
20. Nestel PJ, Shige H, Pomeroy S, Cehun M, Chin-Dusting J. Post-prandial remnant lipids impair arterial compliance. *J Am Coll Cardiol* 2001;37:1929–35.
21. Knight EL, Stampfer MJ, Hankinson SE, Spiegelman D, Curhan GC. The Impact of Protein Intake on Renal Function Decline in Women with Normal Renal Function or Mild Renal Insufficiency. *Ann Int Med* 2003;138:460–7.
22. Coresh J, Astor BC, Greene T, Eknoyan G, Levey AS. Prevalence of chronic kidney disease and decreased kidney function in the adult US population: Third National Health and Nutrition Examination Survey. *Am J Kidney Dis* 2003;41:1–12.

23. Goldfarb DS, Coe FL. Prevention of Recurrent Nephrolithiasis. *Am Fam Physician* 1999;60:2269–76.
 24. American Diabetes Association. Evidence-based nutrition principles and recommendations for the treatment and prevention of diabetes and related complications. *Diabetes Care* 2002;25:202–12.
 25. Abelow BJ, Holford TR, Insogna KL. Cross-cultural association between dietary animal protein and hip fracture: a hypothesis. *Calcif Tissue Int* 1992;50:14–18.
 26. Feskanich D, Willett WC, Stampfer MJ, Colditz GA. Protein consumption and bone fractures in women. *Am J Epidemiol* 1996;143:472–9.
 27. Reddy ST, Wang CY, Sakhaee K, Brinkley L, Pak CY. Effect of low-carbohydrate high-protein diets on acid-base balance, stone-forming propensity, and calcium metabolism. *Am J Kidney Dis* 2002;40:265–74.
 28. Nielsen SJ. Patterns and trends in food portion sizes, 1977–1998. *JAMA* 2003; 289:450–3.
 29. Holt SHA, Brand Miller JC, Petocz P. An insulin index of foods; the insulin demand generated by 1000-kJ portions of common foods. *Am J Clin Nutr* 1997;66:1264–76.
-
-

info

ABOUT THE AUTHORS

Founded in 1985, the Physicians Committee for Responsible Medicine is a nonprofit health organization that promotes preventive medicine, especially good nutrition. PCRM also conducts clinical research studies, opposes unethical human experimentation, and promotes alternatives to animal research. PCRM president Neal D. Barnard, M.D., is a popular speaker and the author of *Breaking the Food Seduction*; *Foods that Fight Pain*; *Food for Life*; and other books on preventive medicine. PCRM's advisory board includes 12 health care professionals from a broad range of specialties. For further information, go to: <http://pcrm.org/>

DOWNLOAD THIS

This manifesto is available from <http://changethis.com/3.AtkinsMyth>

SEND THIS

Click here to pass along a copy of this manifesto to others.

<http://changethis.com/3.AtkinsMyth/email>

SUBSCRIBE


Learn about our latest manifestos as soon as they are available. Sign up for our free newsletter and be notified by email. <http://changethis.com/subscribe>

info

WHAT YOU CAN DO

You are given the unlimited right to print this manifesto and to distribute it electronically (via email, your website, or any other means). You can print out pages and put them in your favorite coffee shop's windows or your doctor's waiting room. You can transcribe the author's words onto the sidewalk, or you can hand out copies to everyone you meet. You may not alter this manifesto in any way, though, and you may not charge for it.

NAVIGATION & USER TIPS

Move around this manifesto by using your keyboard arrow keys or click on the right arrow (→) for the next page and the left arrow (←). To send this by email, just click on .

KEYBOARD SHORTCUTS

	PC	MAC
Zoom in (Larger view)	[CTL] [+]	[⌘] [+]
Zoom out	[CTL] [-]	[⌘] [-]
Full screen/Normal screen view	[CTL] [L]	[⌘] [L]

BORN ON DATE

This document was created on 6 September 2004 and is based on the best information available at that time. To check for updates, please click here to visit <http://changethis.com/3.AtkinsMyth>

info



COPYRIGHT INFO

The copyright in this work belongs to the author, who is solely responsible for the content. Please direct content feedback or permissions questions to the authors: <http://www.pcrm.org>

This work is licensed under the Creative Commons Attribution–NonCommercial–NoDerivs License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/2.0> or send a letter to Creative Commons, 559 Nathan Abbott Way, Stanford, California 94305, USA.

Cover image from stock.xchng <http://www.sxc.hu/index.phtml>

ABOUT CHANGETHIS

ChangeThis is a vehicle, not a publisher. We make it easy for big ideas to spread. While the authors we work with are responsible for their own work, they don't necessarily agree with everything available in ChangeThis format. But you knew that already.