

PUBLISHED STUDIES SUPPORTING ATKINS

Author	Year	Title	Journal	University/Funding	Summary
Accurso	2008	Dietary Carbohydrate Restriction in Type 2 Diabetes Mellitus and Metabolic Syndrome: Time For a Critical Appraisal	Nutrition & Metabolism	n/a This is a review article.	Experiments are summarized showing that carbohydrate-restricted diets are at least as effective for weight loss as low-fat diets and that substitution of fat for carbohydrate is generally beneficial for risk of cardiovascular disease. These beneficial effects of carbohydrate restriction do not require weight loss. Finally, the point is reiterated that carbohydrate restriction improves all of the features of metabolic syndrome.
Ajala	2013	Systematic review and meta-analysis of different dietary approaches to the management of type 2 diabetes	Am J Clin Nutr	Peninsula College of Medicine, UK / No funding for this study	Low-carbohydrate are as effective as low-GI, Mediterranean, and highprotein diets in improving various markers of cardiovascular risk in people with diabetes and should be considered in the overall strategy of diabetes management.
Amari	2014	Exploring the relationship between preferences for high fat foods and efficacy of the ketogenic and modified Atkins diets among children with seizure disorders	Seizure	Johns Hopkins University / Funding not listed.	Findings provide preliminary evidence that fat preference, when directly assessed, may be a useful predictor of treatment efficacy for the ketogenic and modified Atkins diets.
Arvio	2010	Modified Atkins Diet Brought Back The Joy of Life to a Developmentally Severely Disabled Youth	Duodecim	Paijat-Hame Central Hospital, Neurology and Internal Medicine Clinics/Funding not listed.	Authors describe a developmentally severely disabled man, whose epilepsy settled, autistic features were alleviated, behavioral problems disappeared and whose weight and blood lipid and glucose values have remained normal for one year during a modified Atkins diet.
Aude	2004	The National Cholesterol Education Program Diet vs a Diet Lower in Carbohydrates and Higher in Protein and Monounsaturated Fat	Arch Intern Med	Agatston Research Institute/Agaston Research Institute	Compared with the NCEP diet, the MLC diet, which is lower in total carbohydrates but higher in complex carbohydrates, protein, and monounsaturated fat, caused significantly greater weight loss over 12 weeks. Weight loss was significantly greater in the Modified Low Carbohydrate (13.6 lb) than in the National Cholesterol Education Program group (7.5 lb), a difference of 6.1 lb. There were significantly favorable changes in all lipid levels within the MLC but not within the NCEP group. Waist-to-hip ratio was significantly decreased within the MLC group.

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Austin	2009	A Very Low-carbohydrate Diet Improves Symptoms and Quality of Life in Diarrhea-Predominant Irritable Bowel Syndrome	Clin Gastroenterol Hepatol	UNC General Clinical Research Center/Atkins Foundation	Participants with moderate to severe IBS-D were provided a 2-week standard diet, then 4 weeks of a VLCD (20 g carb/day). 77% of participants experienced adequate relief, improved abdominal pain, stool habits and quality of life regarding IBS-D as a result of VLCD.
Bailes	2003	Effect of Low-Carbohydrate, Unlimited Calorie Diet on the Treatment of Childhood Obesity: A Prospective Controlled Study	Metabolic Syndrome and Related Disorders	Marshall University/Funding not listed	Obese children following a high protein, low CHO diet (<30g/day) lost an average of 5.21 ± 3.44 kg and decreased their BMI by 2.42 ± 1.3 points, compared to the children in the Low Cal Diet (calorie restricted) who gained an average of 2.36 ± 2.54 kg and 1.00 point on the BMI value. A high protein, low carbohydrate, unlimited calorie diet was superior to a restricted calorie protocol for weight loss in obese school age children;
Ballard	2013	Dietary carbohydrate restriction improves insulin sensitivity, blood pressure, microvascular function, and cellular adhesion markers in individuals taking statins	Nutrition Research	University of Connecticut / University of Connecticut	The results of this study suggest that a CRD could be a sustainable lifestyle that complements statin treatment to improve overall cardiometabolic risk, particularly for individuals with other risk factors indicative of metabolic syndrome, but future research is needed to determine the effects over a longer period of time.
Bazzano	2014	Effects of Low-Carbohydrate and Low-Fat Diets	Annals of Internal Medicine	Tulane University, Kaiser Permanente, Johns Hopkins / NIH	The low-carbohydrate diet was more effective for weight loss and cardiovascular risk factor reduction than the low-fat diet. Restricting carbohydrate may be an option for persons seeking to lose weight and reduce cardiovascular risk factors.
Ben-Avraham	2009	Dietary Strategies For Patients With Type 2 Diabetes in the Era of Multi-approaches; Review and Results From the Dietary Intervention Randomized Controlled Trial (DIRECT)	Diabetes Research and Clinical Practice	Ben-Gurion University of the Negev, Israel/Atkins Foundation	Patients who were randomized to the low-carbohydrate diet achieved a significant reduction of hemoglobin A1C. Some recent trials have shown that low carbohydrate diets are as efficient in inducing weight loss and in some metabolic measures such as serum triglycerides and HDL-cholesterol may be even superior to low fat diets.

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Boden	2005	Effect of a Low-Carbohydrate Diet on Appetite, Blood Glucose Levels, and Insulin Resistance in Obese Patients with Type 2 Diabetes	Annals of Internal Medicine	Temple University & University of Medicine and Dentistry of New Jersey School of Osteopathic Medicine/National Institutes of Health & American Diabetes	In a small group of obese patients with type 2 diabetes, a low-carbohydrate diet followed for 2 weeks resulted in spontaneous reduction in energy intake to a level appropriate to their height; weight loss that was completely accounted for by reduced caloric intake; much improved 24-hour blood glucose profiles, insulin sensitivity, and hemoglobin A1c; and decreased plasma triglyceride and cholesterol levels.
Brehm	2003	A Randomized Trial Comparing a Very Low Carbohydrate Diet and a Calorie-Restricted Low Fat Diet on Body Weight and Cardiovascular Risk	J Clin Endocrinol Metab	University of Cincinnati/American Heart Association, National Institutes of Health	Based on these data, a very low carbohydrate diet is more effective than a low fat diet for short-term weight loss and, over 6 months, is not associated with deleterious effects on important cardiovascular risk factors in healthy women.
Brehm	2005	The Role of Energy Expenditure in the Differential Weight Loss in Obese Women on Low-fat and Low-carbohydrate Diets	J Clin Endocrinol Metab	University of Cincinnati/American Heart Association, National Institutes of Health	These results confirm that short-term weight loss is greater in obese women on a low-carbohydrate diet than in those on a low-fat diet even when reported food intake is similar.
Brinkworth	2009	Long-term effects of a very-low-carbohydrate weight loss diet compared with an isocaloric low-fat diet after 12 mo	Am J Clin Nutr.	Preventative Health National Research Flagship (Adelaide, Australia) / National Heart Foundation of Australia	Low Carb group (over a isocaloric low fat diet) had greater decreases in triglycerides, increases in HDL cholesterol, and LDL cholesterol, and a greater but nonsignificant increase in apolipoprotein B. Both dietary patterns resulted in similar
Bueno	2013	Very-low-carbohydrate ketogenic diet v. low-fat diet for long-term weight loss: a meta-analysis of randomised controlled trials	British Journal of Nutrition	Universidade Federal de Alagoas, Brazil / CNPq	Individuals assigned to a VLCKD achieve a greater weight loss than those assigned to a LFD in the long term; hence, a VLCKD may be an alternative tool against obesity.
Caraballo	2014	Ketogenic diet in pediatric patients with refractory focal status epilepticus	Epilepsy Research	Hospital de pediatria, Buenos Aires, Argentina / Funding not listed	The KD is an effective and well-tolerated treatment option for patients with refractory SE. In patients with focal SE secondary to inflammatory or probably inflammatory diseases, the KD should be considered earlier in the course of the treatment.
Carrette	2008	A Pilot Trial With Modified Atkins' Diet in Adult Patients With Refractory Epilepsy	Clinical Neurology and Neurosurgery	Ghent University Hospital/Ghent University Hospital	This pilot study shows that the modified Atkins' diet is feasible in an adult population, and that seizure frequency reduction is possible. The results need to be confirmed in larger prospective,

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Chen	2012	Long-term follow-up of children treated with the modified Atkins diet.	J Child Neurol	Johns Hopkins University / Funding not listed.	At their most recent point during the modified Atkins diet (mean 19.9 months), 30 of 54 (55%) children with diet durations of more than 6 months achieved >50% improvement; 19 (35%)
Chowdhury	2014	Association of Dietary, Circulating, and Supplement Fatty Acids With Coronary Risk	Annals of Internal Medicine	University of Cambridge, Harvard University, Univeristy of Oxford / British Heart Foundation	Current evidence does not clearly support cardiovascular guidelines that encourage high consumption of polyunsaturated fatty acids and low consumption of total saturated fats.
Coleman	2005	Urinary Ketones Reflect Serum Ketone Concentration But Do Not Relate to Weight Loss in Overweight Premenopausal Women Following a Low-carbohydrate/High-protein Diet	J Am Diet Assoc	Virginia Polytechnic Institute, Virginia State University/Funding not listed.	Thirteen overweight premenopausal women aged 32 to 45 years consumed <20 g carbohydrate/day with liberal intakes of protein and fat for 2 weeks; thereafter, carbohydrate intake increased 5 g/week for 10 weeks. Serum-hydroxybutyrate was correlated with presence of urinary ketones, but no relationship was found between weekly weight change and serum ketone production. Urinary ketones are detected in premenopausal women complying with a low-carbohydrate/high-protein diet and are associated with serum ketone concentration.
Daly	2006	Short-Term Effects of Severe Dietary Carbohydrate-Restriction Advice in Type 2 Diabetes--a Randomized Controlled Trial	Diabet Med	Diabetes and Vascular Health Center/Diabetes UK	Weight loss and high-density lipoprotein (HDL) ratio improved was greater in the low-carbohydrate (LC) group over low fat group. Carbohydrate restriction was an effective method of achieving short-term weight loss compared with standard advice.
Dansinger	2005	Comparison of the Atkins, Ornish, Weight Watchers, and Zone Diets for Weight Loss and Heart Disease Risk Reduction	Journal of the American Medical Association	Tufts-New England Medical Center/National Institutes of Health	Each popular diet modestly reduced body weight and several cardiac risk factors at 1 year. Overall dietary adherence rates were low, although increased adherence was associated with greater weight loss and cardiac risk factor reductions for each diet group.

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Dashti	2004	Long Term Effects of a Ketogenic Diet in Obese Patients	Clinical Cardiology	Kuwait University/Funding not listed.	The present study shows the beneficial effects of a long-term ketogenic diet. It significantly reduced the body weight and body mass index of the patients. Furthermore, it decreased the level of triglycerides, LDL cholesterol and blood glucose, and increased the level of HDL cholesterol. Administering a ketogenic diet for a relatively longer period of time did not produce any significant side effects in the patients. Therefore, the present study confirms that it is safe to use a ketogenic diet for a longer period of time than previously demonstrated.
Dashti	2003	Ketogenic Diet Modifies The Risk Factors of Heart Disease in Obese Patients	Nutrition	Kuwait University/Funding not listed.	The level of total cholesterol decreased from week 1 to week 12. HDL cholesterol increased significantly, whereas LDL cholesterol decreased significantly. The purpose of this study was to investigate the long-term effect of a ketogenic diet on the activation and modification of heart disease risk factors in obese patients.
Davis	2009	Comparative Study of the Effects of a 1-Year Dietary Intervention of a Low-Carbohydrate Diet Versus a Low-Fat Diet on Weight and Glycemic Control in Type 2 Diabetes	Diabetes Care	Albert Einstein College of Medicine of Yeshiva University & North Bronx Healthcare Network/Robert C. Atkins Foundation and the Diabetes Research and Training Center	Among patients with type 2 diabetes, after 1 year a low-carbohydrate diet had effects on weight and A1C similar to those seen with a low-fat diet. There was no significant effect on blood pressure, but the low-carbohydrate diet produced a greater increase in HDL cholesterol. Weight loss occurred faster in the low-carbohydrate group than in the low-fat group in the first 3 months.
DiLorenzo	2013	Diet transiently improves migraine in two twin sisters: possible role of ketogenesis?	Funct Neurol.	University of Rome / Funding not listed (Italy)	The case of a pair of twin sisters, whose high-frequency migraine improved during a ketogenic diet they followed in order to lose weight. The observed time-lock between ketogenesis and migraine improvement provides some insight into how ketones act to improve migraine.
DiLorenzo	2014	Migraine improvement during short lasting ketogenesis: a proof-ofconcept study	European Journal of Neurology	University of Rome / Funding not listed (Italy)	The underlying mechanisms of KD efficacy could be related to its ability to enhance mitochondrial energy metabolism and counteract neural inflammation.

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DiNicolantonio	2014	The cardiometabolic consequences of replacing saturated fats with carbohydrates or Ω -6 polyunsaturated fats: Do the dietary guidelines have it wrong?	BMJ, Open Heart	Saint Luke's Mid America Heart Institute / n/a	A recent publication by Malhotra was refreshing, inspiring and hit on an important topic that has been heavily debated for over 50 years, that is, are saturated fats as bad as we have been led to believe? This editorial discusses the data.
Ebbeling	2012	Effects of Dietary Composition on Energy Expenditure During Weight-Loss Maintenance	JAMA	Children's Hospital Boston/National Institute of Diabetes and Digestive and Kidney Diseases	Individuals on the very low carb diet had the highest resting metabolism.
El-Rashidy	2013	Modified Atkins diet vs classic ketogenic formula in intractable epilepsy.	Acta Neurol Scand	Ain Shams University / Ain Shams University (Egypt)	The KD whether classic 4:1 or MAD is a tolerable, safe, and effective adjuvant therapy for intractable symptomatic childhood epilepsy with limited adverse effects on the growth parameters and accepted changes in the lipid profile. The liquid ketogenic formula patients showed better growth pattern and significantly more seizure control.
Feinman	2014	Dietary Carbohydrate restriction as the first approach in diabetes management. Critical review and evidence base	Nutrition	SUNY Downstate Medical Center / n/a	Authors present 12 points of evidence supporting the use of low-carbohydrate diets as the first approach to treating type 2 diabetes and as the most effective adjunct to pharmacology in type 1.
Feinman	2003	Metabolic Syndrome and Low-Carbohydrate Ketogenic Diets in the Medical School Biochemistry Curriculum	Metabolic Syndrome and Related Disorders	State University of New York Downstate Medical Center / Funding not listed.	The ideal diet for weight loss and treatment of metabolic syndrome, if it exists, remains to be determined, but presenting metabolism in the context of questions raised by the Atkins regimen prepares future physicians for critical analysis of clinical and basic metabolic information.
Fine	2012	Targeting insulin inhibition as a metabolic therapy in advanced cancer: A pilot safety and feasibility dietary trial in 10 patients	Nutrition	Albert Einstein College of Medicine/SUNY Research Foundation & Atkins Foundation	Insulin inhibition effected by dietary CHO restriction was found safe and feasible in 10 patients with advanced cancer.

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Fine	2014	Insulin, carbohydrate restriction, metabolic syndrome and cancer	Expert Rev. Endocrinol. Metab.	Albert Einstein School of Medicine, SUNY Health Sciences Ctr / Atkins Foundation and SUNY	We propose that dietary carbohydrate restriction, particularly ketogenic diets, may provide benefit as a therapeutic or preventive strategy in cancer, alone or as an adjunct to pharmacology.
Forsythe	2008	Comparison of Low Fat and Low Carbohydrate Diets on Circulating Fatty Acid Composition and Markers of Inflammation	Lipids	University of Connecticut/Atkins Foundation	Overweight men and women with atherogenic dyslipidemia consumed ad libitum diets very low in carbohydrate (VLCKD) or low in fat (LFD) for 12 weeks. Both diets significantly decreased the concentration of several serum inflammatory markers, but there was an overall greater anti-inflammatory effect associated with the VLCKD. In summary, a very low carbohydrate diet resulted in profound alterations in fatty acid composition and reduced inflammation compared to a low fat diet.
Foster	2010	Weight and Metabolic Outcomes After 2 Years on a Low-Carbohydrate Versus Low-Fat Diet: A Randomized Trial	Annals of Internal Medicine	Temple University/National Institutes of Health	Successful weight loss can be achieved with either a low-fat or low-carbohydrate diet when coupled with behavioral treatment. A low-carbohydrate diet is associated with favorable changes in cardiovascular disease risk factors at 2 years. Weight loss was approximately 11 kg (11%) at 1 year and 7 kg (7%) at 2 years. During the first 6 months, the low-carbohydrate diet group had
Foster	2003	A Randomized Trial of a Low-carbohydrate Diet For Obesity	N Engl J Med	University of Pennsylvania/National Institutes of Health	The low-carbohydrate diet produced a greater weight loss (4%) than did the conventional diet for the first six months, but the differences were not significant at one year. The low-carbohydrate diet was associated with a greater improvement in some risk factors for coronary heart disease.

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Friedman	2012	Comparative Effects of Low-Carbohydrate High-Protein Versus Low-Fat Diets on the Kidney	Clin J Am Soc Nephrol	Indiana University School of Medicine, Temple University Center for Obesity Research and Education, Washington University School of Medicine/National Institute of	In healthy obese individuals, a low-carbohydrate high-protein weight-loss diet over 2 years was not associated with noticeably harmful effects on GFR, albuminuria, or fluid and electrolyte balance compared with a low-fat diet.
Gann	2004	A Low-carbohydrate Diet in Overweight Patients Undergoing Stable Statin Therapy Raises High-density Lipoprotein and Lowers Triglycerides Substantially	Clin Cardiol	University of Arizona/Funding not listed.	This study was undertaken to evaluate the effect of a low-carbohydrate diet on the lipid levels in obese patients with known arteriosclerotic heart disease on chronic statin therapy. Triglyceride levels were lowered by 29.5%, HDL raised by 17.6%, and cholesterol decreased by 8.4%. The cholesterol/ HDL ratio changed from 5.31 to 3.78 and LDL cholesterol decreased by 5%.
Gannon	2004	Effect of a High-Protein, Low-Carbohydrate Diet on Blood Glucose Control in People With Type 2 Diabetes	Diabetes	Department of Veterans Affairs Medical Center/Americans Diabetes Association	A LoBAG (low-biologically-available-glucose) diet ingested for 5 weeks dramatically reduced the circulating glucose concentration in people with untreated type 2 diabetes. Potentially, this could be a patient-empowering way to ameliorate hyperglycemia without pharmacological intervention.
Gardner	2012	Tailoring dietary approaches for weight loss	International Journal of Obesity Supplements	Stanford University/Funding not listed	After decades of health professionals promoting a Low-Fat dietary approach for weight loss and weight control, a series of studies conducted in the past decade pitting Low-Fat vs Low-Carb diets have provided evidence that the Low-Fat diet is not a superior approach; a Low-Carb, and possibly a High-Protein, diet is equally, if not modestly more, effective.
Gardner	2007	Comparison of the Atkins, Zone, Ornish, and LEARN Diets For Change in Weight and Related Risk Factors Among Overweight Premenopausal Women: the A TO Z Weight Loss Study: a Randomized Trial.	JAMA	Stanford University Medical School/National Institutes of Health	In this study, premenopausal overweight and obese women assigned to follow the Atkins diet, which had the lowest carbohydrate intake, lost more weight at 12 months than women assigned to follow the Zone diet, and had experienced comparable or more favorable metabolic effects than those assigned to the Zone, Ornish, or LEARN diets.

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Goldstein	2004	Influence of a Modified Atkins Diet on Weight Loss and Glucose Metabolism in Obese Type 2 Diabetic Patients	Israel Medical Association Journal	Hebrew University - Hadassah Medical School, Israel/Hadassah University Hospital	In this randomized controlled clinical trial authors found no statistical difference in weight loss and HbA1c between the Atkins and ADA diets, although the results slightly favored the Atkins diet. Furthermore, there was no evidence of deleterious effects on cardiovascular risk factors or renal function due to the high fat high protein diet after 3 months of follow-up. Based on our results, some patients who are unable to adhere to the ADA
Gutierrez	1998	Utility of a short-term 25% carbohydrate diet on improving glycemic control in type 2 diabetes mellitus	J Am Coll Nutr	Sansum Medical Research Foundation/Funding not listed.	To determine if introduction of a low carbohydrate diet might be a useful option for type 2 diabetic patients who do not achieve glucose target levels despite conventional treatment. A low carbohydrate, calorically-restricted diet has beneficial short-term effects in subjects with type 2 who have failed either diet
Haberlandt	2014	Glucose transporter type 1 deficiency syndrome effectively treated with modified atkins diet.	Neuropediatrics	Innsbruck Medical University / Funding not listed. (Austria)	Treatment with MAD, a variant of KD, for an observation period of 17 months resulted in improvement of seizures, alertness, cognitive abilities, and electroencephalography in this patient.
Hays	2003	Effect of a High Saturated Fat and No-starch Diet on Serum Lipid Subfractions in Patients With Documented Atherosclerotic Cardiovascular Disease	Mayo Clin Proc	University of Delaware/Christiana Care Health Services, Inc. Cardiology Services	To determine whether a diet of high saturated fat and avoidance of starch (HSF-SA) results in weight loss without adverse effects on serum lipids in obese nondiabetic patients. HSF-SA diet results in weight loss after 6 weeks without adverse effects on serum lipid levels verified by nuclear magnetic resonance, and further weight loss with a lipid neutral effect
Hays	2002	Results of Use of Metformin and Replacement of Starch With Saturated Fat in Diets of Patients With Type 2 Diabetes	Endocr Pract	University of Delaware/Christiana Care Health Services, Inc. Cardiology Services	Addition of saturated fat and removal of starch from a high-monounsaturated fat and starch-restricted diet improved glycemic control and were associated with weight loss without detectable adverse effects on serum lipids.

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Hickey	2003	Clinical Use of a Carbohydrate-Restricted Diet to Treat the Dyslipidemia of the Metabolic Syndrome	Metabolic Syndrome and Related Disorders	Heritage Medical Partners, South Carolina/Duke University	A carbohydrate-restricted diet recommendation led to improvements in lipid profiles and lipoprotein subclass traits of the metabolic syndrome in a clinical outpatient setting, and should be considered as a treatment for the metabolic syndrome.
Hite	2011	Low-Carbohydrate Diet Review : Shifting the Paradigm	Nutr Clin Pract	University of North Carolina/Funding not listed.	This review examines and compares the safety and the effectiveness of a LC approach as an alternative to a low-fat (LF), highcarbohydrate diet, the current standard for weight loss and/or chronic disease prevention. The metabolic, hormonal, and appetite signaling effects of carbohydrate reduction suggest an underlying scientific basis for considering it as an alternative approach to LF, high-carbohydrate recommendations in addressing overweight/obesity and chronic disease in America.
Hu	2014	The low-carbohydrate diet and cardiovascular risk factors: Evidence from epidemiologic studies	Nutrition, Metabolism & Cardiovascular Diseases	Tulane University / n/a	Recent randomized controlled trials document that low-carbohydrate diets not only decrease body weight but also improve cardiovascular risk factors. In light of this evidence from randomized controlled trials, dietary guidelines should be re-visited advocating a healthy low carbohydrate dietary pattern as an alternative dietary strategy for the prevention of obesity and cardiovascular disease risk factors.
Husain	2004	Diet Therapy For Narcolepsy	Neurology	Duke University Medical Center/Narcolepsy Network	The effects of a low-carbohydrate, ketogenic diet (LCKD) on sleepiness and other narcolepsy symptoms were studied. Nine patients with narcolepsy were asked to adhere to the Atkins' diet plan, and their symptoms were assessed using the Narcolepsy Symptom Status Questionnaire (NSSQ). The NSSQ-Total score decreased by 18% from 161.9 to 133.5 (p = 0.0019)
Hussain	2012	Effect of low-calorie versus low-carbohydrate ketogenic diet in type 2 diabetes	Nutrition	Al Shaab Family Medicine Medical Center, Kuwait/Funding not listed	This study shows the beneficial effects of a ketogenic diet over the conventional LCD in obese diabetic subjects. The ketogenic diet appears to improve glycemic control. Therefore, diabetic patients on a ketogenic diet should be under strict medical

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Iqbal	2010	Effects of a Low-intensity Intervention That Prescribed a Low-carbohydrate vs. a Low-fat Diet in Obese, Diabetic Participants	Obesity	University of Pennsylvania Medical Center / Veterans Affairs Medical Center	At this time, participants in the low-carbohydrate group lost 1.5 kg, compared to 0.2 kg in the low-fat group (P = 0.147). Lipids, glycemic indexes, and dietary intake did not differ between groups at month 24 (or at months 6 or 12).
Ito	2011	A modified Atkins diet is promising as a treatment for glucose transporter type 1 deficiency syndrome.	Dev Med Child Neurol	Tokyo Women's Medical University /Funding not listed. (Japan)	For the treatment of GLUT1-DS, the MAD is less restrictive, more palatable, and easier to maintain than the conventional ketogenic diet, but its effectiveness was similar. Thus, MAD
Ito	2008	Modified Atkins Diet Therapy For a Case With Glucose Transporter Type 1 Deficiency Syndrome	Brain and Development	Tokyo Women's Medical University, Asahikawa Medical College/Funding not listed.	The modified Atkins diet should be considered for patients with GLUT-1 DS as an alternative to the traditional ketogenic diet.
Johnston	2014	Comparison of Weight Loss Among Named Diet Programs in Overweight and Obese Adults	JAMA	Stanford Univ. / Canadian Institute of Health	Low-carbohydrate and low-fat dietary programs were associated with more weight loss than no dietary intervention over a 12-month period; behavioral support and exercise enhanced weight loss. This supports the practice of recommending any diet that a
Jonasson	2014	Advice to follow a low-carbohydrate diet has a favourable impact on low-grade inflammation in type 2 diabetes compared with advice to follow a low-fat diet	Annals of Medicine	Linkoping University, Sweden / Funding not listed.	Low Carbohydrate Diet was found significantly to improve the subclinical inflammatory state in type 2 diabetes.
Kang	2007	Use of a Modified Atkins Diet in Intractable Childhood Epilepsy	Epilepsia	Inje University College of Medicine, Korea/Funding not listed	Six months after diet initiation, seven (50%) remained on the diet, five (36%) had >50% seizure reduction, and three (21%) were seizure free. The diet was well tolerated by 12 (86%) patients.
Kima	2011	Various Indications For a Modified Atkins Diet in Intractable Childhood Epilepsy	Brain and Development	Yonsei University College of Medicine, Korea/Funding not listed	A long-term treatment with the MAD was well tolerated. Moreover, the MAD can successfully substitute the classic KD in patients who showed improvement in seizure outcomes by the KD. 9 patients maintained the MAD with favorable seizure outcomes (a reduction of seizure frequency by over 50%) or

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Klein	2014	Dietary treatment in adults with refractory epilepsy: A review.	Neurology	George Washington Univ / funding not listed	This review paper discusses the benefits of a ketogenic diet (or Modified Atkins Diet) as a treatment of epilepsy.
Kossoff	2013	Efficacy of dietary therapy for juvenile myoclonic epilepsy	Epilepsy & Behavior	Johns Hopkins Medical Institutions / Carson Harris Foundation	The modified Atkins diet was an efficacious adjunctive therapy for young adults with very medically resistant Juvenile Myoclonic Epilepsy. After 1 month, 6 (75%) patients had >50% seizure reduction, and after 3 months, 5 (63%) patients had >50% improvement.
Kossoff	2013	Transitioning pediatric patients receiving ketogenic diets for epilepsy into adulthood	Seizure	Johns Hopkins University / NIH	It is important for adolescents with epilepsy receiving ketogenic diets to have transition plans in place for when they become adults. Adult epilepsy diet centers are the ideal option when possible.
Kossoff	2003	Efficacy of the Atkins Diet as Therapy For Intractable Epilepsy	Neurology	The Johns Hopkins Medical Institutions/Atkins Foundation	Six patients were started on the Atkins diet for the treatment of intractable focal and multifocal epilepsy. Five patients maintained moderate to large ketosis for periods of 6 weeks to 24 months; three patients had seizure reduction and were able
Kossoff	2010	Will Seizure Control Improve By Switching From The Modified Atkins Diet to The Traditional Ketogenic Diet?	Epilepsia	Johns Hopkins University/Funding not listed.	A higher incidence of improvement with the KD occurred for those with myoclonic-astatic epilepsy including all who became seizure-free.

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Kossoff	2010	A Pilot Study of The Modified Atkins Diet For Sturge–Weber Syndrome	Epilepsy Research	Johns Hopkins Medical Insitutions/Funding not listed.	The modified Atkins diet (MAD) is a dietary treatment for epilepsy which does not restrict fluids or calories. This theoretically makes the MAD safer than the ketogenic diet for children with Sturge–Weber Syndrome (SWS) Epilepsia
Kossoff	2011	Prospective Study of the Modified Atkins Diet in Combination With a Ketogenic Liquid Supplement During the Initial Month	Journal of Child Neurology	Johns Hopkins Medical Insitution/Johns Hopkins Medical Institution	This study analyzed the combination of the Modified Atkins Diet and the supplement KetoCal in the treatment of intractable childhood epilepsy. The use of this ketogenic supplement increased daily fat intake and thus the ketogenic ratio but did not change urinary or serum ketosis. The addition of a ketogenic supplement to the modified Atkins diet during its initial month
Kossoff	2008	When Do Seizures Usually Improve With The Ketogenic Diet?	Epilepsia	The Johns Hopkins Medical Institutions/Johns Hopkins University School of Medicine	The KD works quickly when effective, typically within the first 1–2 weeks. Starting the KD after a fasting period may lead to a
Kossoff	2013	Dietary Therapies for Epilepsy	Biomedical Journal	Johns Hopkins University / Review article - no funding.	The two major nonpharmacologic treatments for patients with epilepsy are neurostimulation devices (e.g. vagus nerve stimulators) and dietary treatments (ketogenic). In this review, we will cover the latter treatments, namely, using diets.
Kossoff	2013	A decade of the modified Atkins diet (2003–2013): Results, insights, and future directions	Epilepsy and Behavior	Johns Hopkins University	The modified Atkins diet has been used since 2003 for the treatment of children and adults with refractory epilepsy. Now after 10 years of continued use, approximately 400 patients have been reported in over 30 studies of the modified Atkins diet as treatment for intractable seizures, with results demonstrating similar efficacy to the ketogenic diet and improved tolerability. This review will discuss the past decade of experience with the modified Atkins diet as well as predictions

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Kossoff	2009	Ketogenic Diets: Evidence For Short- and Long-term Efficacy	Neurotherapeutics	Johns Hopkins Hospital, Baltimore, Maryland/The Atkins Foundation	This review discusses the animal and human evidence for both short- and long-term benefits of dietary therapies.
Kossoff	2004	More Fat and Fewer Seizures: Dietary Therapies For Epilepsy	Lancet Neurol	Review Article	This is a review article on the topic of ketogenic diet as treatment for epilepsy.
Krebs	2010	Efficacy and Safety of a High Protein, Low Carbohydrate Diet for Weight Loss in Severely Obese Adolescents	J Pediatr	University of Colorado/Pediatric Clinical Translational Research Center & National Cattleman's Beef Association	Significant reduction in BMI-Z-score was achieved in both groups during intervention, and was significantly greater for the HPLC (high protein low carbohydrate) group. Both groups maintained significant BMI-Z reduction at follow-up; changes were not
Kumada	2010	Modified Atkins Diet for the Treatment of Nonconvulsive Status Epilepticus in Children	Journal of Child Neurology	Shiga Medical Center for Children, Japan/Funding not listed	The authors describe the use of a modified Atkins diet for the treatment of 2 children with nonconvulsive status epilepticus. The nonconvulsive status epilepticus disappeared 5 and 10 days after the initiation of the diet treatment, respectively. They have been on the diet treatment and free from nonconvulsive status epilepticus for 19 and 4 months, respectively. The modified
Kumada	2011	Efficacy and Tolerability of Modified Atkins Diet in Japanese Children With Medication-Resistant Epilepsy	Brain and Development	Shiga Medical Center for Children, Japan/Funding not listed.	Seven Japanese patients aged 1.5–17 years with medication-resistant epilepsy were placed on the modified Atkins diet (MAD) for 3 weeks during admission to our hospital. Dietary

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Leen	2013	Movement disorders in GLUT1 deficiency syndrome respond to the modified Atkins diet.	Mov Disord	Radboud University Medical Centre / Funding not listed (Netherlands)	The modified Atkins diet is an effective and feasible alternative to the ketogenic diet for the treatment of GLUT1DS-related paroxysmal movement disorders in adolescence and adulthood.
Maekwa	2014	Retrospective Study on the Efficacy of a Low-Carbohydrate Diet for Impaired Glucose Tolerance	Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy	Japan Labor Health and Welfare Organization / Funding not listed (Japan)	The LCD is effective for normalizing blood glucose and preventing progression to type-2 diabetes in patients with IGT.
Malhotra	2013	Saturated fat is not the major issue	BMJ	Croydon University Hospital, London	It is time to bust the myth of the role of saturated fat in heart disease and wind back the harms of dietary advice that has contributed to obesity.
Martin	2011	Change in Food Cravings, Food Preferences, and Appetite During a Low-Carbohydrate and Low-Fat Diet	Obesity	Temple University, Washington University-St. Louis, University of Colorado/National Institute of Health	The study objective was to evaluate the effect of prescribing a low-carbohydrate diet (LCD) and a low-fat diet (LFD) on food cravings, food preferences, and appetite. The LCD group reported being less bothered by hunger compared to the LFD group. Compared to the LCD group, the LFD group had significantly larger decreases in cravings for high-fat foods and preference for low-carbohydrate/high-protein foods. Men had larger decreases in appetite ratings compared to women. The results also indicate that the LCD group was less bothered by hunger compared to the LFD group and that men had larger reductions in appetite compared to women.

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Mavropoulos	2005	The Effects of a Low-Carbohydrate, Ketogenic Diet on The Polycystic Ovary Syndrome: a Pilot Study	Nutrition and Metabolism	Duke University/Atkins Foundation & Veterans Affairs	In this pilot study, a LCKD led to significant improvement in weight, percent free testosterone, LH/FSH ratio, and fasting insulin in women with obesity and PCOS over a 24 week period.
McAuley	2005	Comparison of High-Fat and High-Protein Diets With a High-Carbohydrate Diet in Insulin-Resistant Obese Women	Diabetologia	Edgar National Center for Diabetes Research, Medical and Surgical Sciences, University of Otago/Health Research Council of New Zealand	In routine practice a reduced-carbohydrate, higher protein diet may be the most appropriate overall approach to reducing the risk of cardiovascular disease and type 2 diabetes. To achieve similar benefits on a HC diet, it may be necessary to increase fibre-rich wholegrains, legumes, vegetables and fruits, and to
Meckling	2004	Comparison of a Low-fat Diet to a Low-carbohydrate Diet on Weight Loss, Body Composition, and Risk Factors for Diabetes and Cardiovascular Disease in Free-living, Overweight Men and Women	J Clin Endocrinol Metab	University of Guelph, Ontario, Canada/Natural Sciences Engineering Research Council of Canada	Both groups of subjects had significant weight loss over the 10 wk of diet intervention and nearly identical improvements in body weight and fat mass. Only the LC group had a significant decrease in circulating insulin concentrations. Group results indicated that the diets were equally effective in reducing systolic blood pressure by about 10 mm Hg and diastolic pressure by 5 mm Hg and decreasing plasminogen activator
Meyerhardt	2012	Dietary Glycemic Load and Cancer Recurrence and Survival in Patients with Stage III Colon Cancer: Findings From CALGB 89803	J Natl Cancer Inst	Dana Farber Cancer Institute / NIH	Higher dietary glycemic load and total carbohydrate intake were statistically significant associated with an increased risk of recurrence and mortality in stage III colon cancer patients. These findings support the role of energy balance factors in colon cancer progression and may offer potential opportunities to improve patient survival.
Miranda	2011	Danish Study of a Modified Atkins Diet For Medically Intractable Epilepsy in Children: Can We Achieve The Same Results as With The Classical	Seizure	Danish Epilepsy Center/Funding not listed.	The author's experience suggests that the MAD is similarly effective as the KD in reducing seizure frequency in children with medically resistant epilepsy.

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Morgan	2008	Comparison of the Effects of Four Commercially Available Weight-loss Programmes on Lipid-based Cardiovascular Risk Factors	Public Health Nutrition	Surrey University, Bristol University, Nottingham University, Ulster (Coleraine) University, and Queen Margaret University College, Edinburgh / BBC	The Atkins (low-carbohydrate) diet was followed by marked reductions in plasma TAG (-38.2% 6 months). This diet was associated with an increase in LDL particle size, a change that has been linked to reduced CVD risk.
Nickols-Richardson	2005	Premenopausal Women Following a Low-carbohydrate/High-protein Diet Experience Greater Weight Loss and Less Hunger Compared to a High-carbohydrate/Low-fat diet	Journal of the American Dietetic Association	Virginia Polytechnic Institute and Virginia State University/Funding not listed.	This study examined the effects of a low-carbohydrate/high-protein (LC/HP) diet versus a high-carbohydrate/low-fat (HC/LF) diet on scores of eating restraint and hunger. Percent change in body weight was significant for both groups over time, although relative weight loss was greater in the LC/HP group (14.8%) compared to the HC/LF (4.3%) group at wk 6. The LC/HP group had a significant decrease in hunger score from baseline to wk 6, while the HC/LF group did not. While women in both diet groups
Nielsen	2008	Low-carbohydrate Diet in Type 2 Diabetes: Stable Improvement of Bodyweight and Glycemic Control During 44 Months Follow-up	Nutrition and Metabolism	Department of Medicine, Blekingesjukhuset, Sweden/Funding not listed	Advice to obese patients with type 2 diabetes to follow a 20% carbohydrate diet with some caloric restriction has lasting effects on bodyweight and glycemic control.
O'Brien	2005	Diet-Induced Weight Loss Is Associated with Decreases in Plasma Serum Amyloid A and C-Reactive Protein Independent of Dietary Macronutrient Composition in Obese Subjects	The Journal of Clinical Endocrinology & Metabolism	University of WA & University of Cincinnati/American Heart Association, National Institute of Health	The very low-carbohydrate dieters had a significantly greater decrease in LogSAA, but their weight loss also was significantly greater. In this study, the decreases in inflammatory markers correlated significantly with weight loss. Also, change in LogSAA correlated with change in insulin resistance. Thus, in otherwise healthy, obese women, weight loss was associated with

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Paoli	2012	Ketogenic diet does not affect strength performance in elite artistic gymnasts	Journal of the International Society of Sports Nutrition	University of Padova, Italy/Gianluca Mech SpA, Orgiano (VI), Italy	Data suggest that athletes who underwent a VLCKD with adequate protein intake lost weight and improved body composition without any negative changes in strength and power performance. Taken together these results suggest that a properly monitored and programmed ketogenic diet could be a useful, and safe, method to allow the athletes to reach their desired weight categories.
Paoli	2013	Long Term Successful Weight Loss with a Combination Biphasic Ketogenic Mediterranean Diet and Mediterranean Diet Maintenance Protocol	Nutrients	University of Padova / Gianluca Mech SpA; University of Padova	The data from this study demonstrate that the majority of subjects showed significant weight loss (10%) as a result of a two-phase VLCKD and were compliant both during the six month weight loss phase and the six month normocaloric maintenance phase, with no weight regain. We can suggest that the proposed protocol was generally successful because of (a) the protein mass protective effects of a VLCKD and (b) the
Paoli	2012	Nutrition and Acne: Therapeutic Potential of Ketogenic Diets	Skin Pharmacology and Physiology	University of Padova, University of Athens, University of Palermo/Funding not listed	This review examines the evidence supporting an influence of various dietary components, such as ketogenic diet, on the development of acne particularly focusing on the role played by carbohydrates.
Paoli	2013	Beyond weight loss: a review of the therapeutic uses of very-low-carbohydrate (ketogenic) diets.	European Journal of Clinical Nutrition	University of Padova / Funding not listed	This review revisits the meaning of physiological ketosis in the light of this evidence and considers possible mechanisms for the therapeutic actions of the ketogenic diet on different diseases. The present review also questions whether there are still some preconceived ideas about ketogenic diets, which may be
Phinney	1983	The Human Metabolic Response to Chronic Ketosis Without Caloric Restriction: Physical and Biochemical	Metabolism	Massachusetts Institute of Technology, Harvard Medical School/National Institutes of	These findings indicate that the ketotic state induced by the EKD was well tolerated in lean subjects; nitrogen balance was regained after brief adaptation, serum lipids were not

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Porta	2009	Comparison of Seizure Reduction and Serum Fatty Acid Levels After Receiving the Ketogenic and Modified Atkins Diet	Seizure	Lille University Hospital / AEAC Association	Authors compared retrospectively the KD and modified Atkins diet in 27 children and also assessed serum long chain fatty acid profiles. We observed a preventive effect of both diets on the occurrence of status epilepticus. After 1 and 3 months of either diet, responders experienced a significant decrease in serum arachidonic acid concentration compared to non-responders. The KD and modified Atkins diet led to seizure reduction in this
Roberts	2012	Relative Intake of Macronutrients Impacts Risk of Mild Cognitive Impairment or Dementia	Journal of Alzheimer's Disease	Mayo Clinic / National Institute of Health	A dietary pattern with relatively high caloric intake from carbohydrates and low caloric intake from fat and proteins may increase the risk of MCI or dementia in elderly persons.
Rosedale	2009	Clinical Experience of a Diet Designed to Reduce Aging	The Journal of Applied Research	Duke University & University of Arizona/Funding not listed.	A high-fat, adequate-protein, low-carbohydrate diet with nutritional supplementation led to improvements in serum factors related to the aging process.
Ruth	2013	Consuming a hypocaloric high fat low carbohydrate diet for 12 weeks lowers C-reactive protein, and raises serum adiponectin and high density lipoprotein-cholesterol in obese subjects	Metabolism: Clinical and Experimental	Boston University / Atkins Foundation	Relative to the Low Fat/High Carb group, the High Fat/Low Carb group had greater improvements in blood lipids and systemic inflammation with similar changes in body weight and composition. This small-scale study suggests that HFLC diets may be more beneficial to cardiovascular health and inflammation in free-living obese adults compared to LFHC diets.

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Samaha	2003	A Low-carbohydrate as Compared With a Low-fat Diet in Severe Obesity	N Engl J Med	Philadelphia Veterans Affairs Medical Center, University of Pennsylvania medical Center, Drexel University of Medicine/Veteran Affairs Healthcare Network	Severely obese subjects with a high prevalence of diabetes or the metabolic syndrome lost more weight during six months on a carbohydrate-restricted diet than on a calorie- and fat-restricted diet, with a relative improvement in insulin sensitivity and triglyceride levels, even after adjustment for the amount of weight lost.
Santos	2012	Systematic review and meta-analysis of clinical trials of the effects of low carbohydrate diets on cardiovascular risk factors	Obesity Reviews	Universidade do Porto, Porto, Portugal, Veteran Affairs Medical Center, Durham, NC, Duke University Medical Center/Funding not listed	LCD was shown to have favourable effects on body weight and major cardiovascular risk factors.
Saskabe	2011	Effects of a moderate low-carbohydrate diet on preferential abdominal fat loss and cardiovascular risk factors in patients with type 2 diabetes	Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy	Haimoto Clinic, Japan/Funding not listed.	Six months of a moderate LCD resulted in preferential VAT (visceral adipose tissue) loss only in women, with significant correlations between % change SAT (subcutaneous adipose tissue) and both change HDL and change FBG (fasting blood glucose), as well as between % change VAT and change TG. Authors results suggest that an LCD has the potential to reduce
Saslow	2014	A Randomized Pilot Trial of a Moderate Carbohydrate Diet Compared to a Very Low Carbohydrate Diet in Overweight or Obese Individuals with Type 2 Diabetes Mellitus or Prediabetes	PlosOne	University of California / NIH	Results suggest that a very low carbohydrate diet coupled with skills to promote behavior change may improve glycemic control in type 2 diabetes while allowing decreases in diabetes medications.

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Segal-Isaacson	2004	One Year Data From A Prospective Cohort of Low Carbohydrate Dieters	2004 North American Society for the Study of Obesity Conference	Albert Einstein College of Medicine/Atkins Foundation	Most CCARBS participants reported they had: More stable moods on a low carb diet, Better appetite control than with a conventional weight loss diet, Preferred food choices on a lower carb diet compared to a conventional weight loss diet. One year weight changes in CCARBS participants were: 26.5% lost weight; 39.0% maintained their weight; 34.5% gained weight. At one year, 75% of CCARBS participants reported they were still on a
Seshadri	2004	A Randomized Study Comparing the Effects of a Low-carbohydrate Diet and a Conventional Diet on Lipoprotein Subfractions and C-reactive Protein Levels in Patients With Severe Obesity	Am J Med	Philadelphia Veterans Affairs Medical Center, University of Pennsylvania Medical Center, Drexel University College of Medicine/Veteran Affairs Healthcare Network	In this 6-month study involving severely obese subjects, we found an overall favorable effect of a low-carbohydrate diet on lipoprotein subfractions, and on inflammation in high-risk subjects. Both diets had similar effects on LDL and HDL subfractions.
Setler	2014	Dietary and Medication Adjustments to Improve Seizure Control in Patients Treated With the Ketogenic Diet	Journal of Child Neurology	Johns Hopkins School of Medicine / NIH	“Fine-tuning” the ketogenic diet by researchers series led to significant additional improvement for 1 in 5 patients, even after up to 14 months on the diet.
Shai	2010	Dietary Intervention to Reverse Carotid Atherosclerosis	CIRCULATION AHA	S. Daniel Abraham Center for Health & Nutrition/Atkins Foundation; Israeli Ministry of Health; Canadian Institutes of Health and Heart and Stroke of Canada	Two-year weight loss diets can induce a significant regression of measurable carotid VWV. The effect is similar in low-fat, Mediterranean, or low-carbohydrate strategies and appears to be mediated mainly by the weight loss-induced decline in blood pressure.
Shai	2008	Weight Loss with a Low-Carbohydrate, Mediterranean, or Low-Fat Diet	The New England Journal of Medicine	S. Daniel Abraham Center for Health & Nutrition/Atkins Foundation & S Daniel Abraham Center for Health & Nutrition	Mediterranean and low-carbohydrate diets may be effective alternatives to low-fat diets. The more favorable effects on lipids (with the low-carbohydrate diet) and on glycemic control (with the Mediterranean diet) suggest that personal preferences and metabolic considerations might inform individualized tailoring of

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Shai	2008	Weight Loss with a Low-Carbohydrate, Mediterranean, or Low-Fat Diet	The New England Journal of Medicine	S. Daniel Abraham Center for Health & Nutrition/Atkins Foundation & S Daniel Abraham Center for Health & Nutrition	Mediterranean and low-carbohydrate diets may be effective alternatives to low-fat diets. The more favorable effects on lipids (with the low-carbohydrate diet) and on glycemic control (with the Mediterranean diet) suggest that personal preferences and metabolic considerations might inform individualized tailoring of dietary interventions.
Sharma	2013	Use of the modified Atkins diet for treatment of refractory childhood epilepsy: A randomized controlled trial	Epilepsia	All India Institute of Medical Sciences	The modified Atkins diet was found to be effective and well tolerated in children with drug-refractory epilepsy.
Sharma	2011	Use of the Modified Atkins Diet in Infantile Spasms Refractory to First-line Treatment	Seizure	Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, India	The modified Atkins diet was found to be effective and well tolerated in children with refractory infantile spasms
Sharma	2014	The Modified Atkins Diet in Refractory Epilepsy	Epilepsy Res Treat	Lady Hardinge Medical College and Associated Kalawati Saran Children's Hospital / Funding not listed (India)	In this review, we discuss the use of the modified Atkins diet in refractory epilepsy.
Sharman	2004	Very Low-carbohydrate and Low-fat Diets Affect Fasting Lipids and Postprandial Lipemia Differently in Overweight Men	J Nutr	University of Connecticut/Atkins Foundation	The primary purpose of this study was to compare the effects of a very low-carbohydrate and a low-fat diet on fasting blood lipids and postprandial lipemia in overweight men. In a balanced, randomized, crossover design, overweight men consumed 2 experimental diets for 2 consecutive 6-wk periods. One was a very low-carbohydrate (<10% energy as carbohydrate) diet and the other a low-fat (<30% energy as fat)

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Sharman	2002	A Ketogenic Diet Favorably Affects Serum Biomarkers for Cardiovascular Disease in Normal-weight Men	J Nutr	University of Connecticut/Atkins Foundation	The results suggest that a short-term ketogenic diet does not have a deleterious effect on CVD risk profile and may improve the lipid disorders characteristic of atherogenic dyslipidemia.
Sharman	2004	Weight Loss Leads to Reductions in Inflammatory Biomarkers After a Very Low-carbohydrate and Low-fat Diet in Overweight Men	Clinical Science (London)	University of Connecticut/Atkins Foundation	The primary purpose of this study was to compare a very low-carbohydrate and a low-fat weight loss diet on inflammatory biomarkers in overweight men. Both the low-fat and the very low-carbohydrate diet resulted in significant decreases in absolute concentrations of hsTNF-alpha, hsIL-6, hs-CRP and sICAM-1. There was no significant change in absolute sP-selectin concentrations after either diet. In summary, energy-restricted low-fat and very low-carbohydrate diets both significantly
Siegel	2009	A 6-Month, Office-Based, Low-Carbohydrate Diet Intervention in Obese Teens	Clinical Pediatrics	Cincinnati Pediatric Research Group, Division of General and Community Pediatrics, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio/The Atkins Foundation	The LCD appears to be an effective and practical office-based intervention in obese teenagers.
Siri-Tarino	2010	Meta-analysis of Prospective Cohort Studies Evaluating The Association of Saturated Fat With Cardiovascular Disease	American Journal of Clinical Nutrition	Children's Hospital Oakland Research Institute, Harvard School of Public Health/National Dairy Council and National Institutes of Health	A meta-analysis of prospective epidemiologic studies showed that there is no significant evidence for concluding that dietary saturated fat is associated with an increased risk of CHD or CVD. More data are needed to elucidate whether CVD risks are likely to be influenced by the specific nutrients used to replace saturated fat.

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Author	Year	Title	Journal	University/Funding	Summary
Siri-Tarino	2010	Saturated Fat, Carbohydrate, and Cardiovascular Disease	American Journal of Clinical Nutrition	Children's Hospital Oakland Research Institute, University of California at Davis, Harvard School of Public Health/National Institutes of Health	The substitution of dietary polyunsaturated fat for saturated fat has been shown to lower CVD risk, there are few epidemiologic or clinical trial data to support a benefit of replacing saturated fat with carbohydrate. Furthermore, particularly given the differential effects of dietary saturated fats and carbohydrates on concentrations of larger and smaller LDL particles, respectively, dietary efforts to improve the increasing burden of CVD risk associated with atherogenic dyslipidemia should
Smith	2011	Efficacy and Tolerability of the Modified Atkins Diet in Adults With Pharmacoresistant Epilepsy: A Prospective Observational Study	Epilepsia	Schulick School of Medicine/ University of Ontario	The Modified Atkins Diet demonstrates modest efficacy as cotherapy for some adults with pharmacoresistant epilepsy and may be also helpful for weight loss. Financial and logistical barriers were significant factors for those who declined enrollment and for those who discontinued the study.
Sondike	2003	Effects of a Low-carbohydrate Diet on Weight Loss and Cardiovascular Risk Factor in Overweight Adolescents	J Pediatr	Schneider Children's, New York/Funding not listed.	To compare the effects of a low-carbohydrate (LC) diet with those of a low-fat (LF) diet on weight loss and serum lipids in overweight adolescents. The LC group lost more weight (mean, 9.9 +/- 9.3 kg vs 4.1 +/- 4.9 kg) and had improvement in non-HDL cholesterol levels. There were no adverse effects on the lipid profiles of participants in either group. The LC diet appears to be an effective method for short-term weight loss in overweight adolescents and does not harm the lipid profile.
Stern	2004	The Effects of Low-Carbohydrate versus Conventional Weight Loss Diets in Severely Obese Adults: One-Year Follow-up of a Randomized Trial	Ann Intern Med	Philadelphia Veterans Affairs Medical Center, University of Pennsylvania Medical Center, Drexel University College of Medicine/Veteran Affairs Healthcare Network	Participants on a low-carbohydrate diet had more favorable overall outcomes at 1 year than did those on a conventional diet. Weight loss was similar between groups, but effects on atherogenic dyslipidemia and glycemic control were still more favorable with a low-carbohydrate diet after adjustment for differences in weight loss.

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Stewart	2011	Losing 10 Lbs With A Low-CHO Diet Plus Exercise Does Not Impair Vascular Function	Medicine & Science in Sports & Exercise	Johns Hopkins University/Funding not listed	A low-CHO diet plus exercise achieved a 10 lb weight loss sooner than a low-fat diet plus exercise, with no detectable impairment of vascular function
Tay	2014	A Very Low Carbohydrate, Low Saturated Fat Diet for Type 2 Diabetes Management: A Randomized Trial	Diabetes Care	University of Adelaide / National Health and Medical Research Council	Both diets achieved substantial improvements for several clinical glycemic control and CVD risk markers. These improvements and reductions in GV and antiglycemic medication requirements were greatest with the LC compared with HC. This suggests an LC diet with low saturated fat may be an effective dietary approach for T2DM management if effects are sustained beyond 24 weeks.
Tay	2008	Metabolic Effects of Weight Loss on a Very-Low-Carbohydrate Diet Compared With an Isocaloric High-Carbohydrate Diet in Abdominally Obese Subjects	Journal of the American College of Cardiology	Department of Nutrition and Dietetics, Flinders University, Adelaide, Australia/National Heart Foundation of Australia and the National Health and Medical Research Council of Australia	Weight loss was similar in both groups (VLCHF & HCLF). Blood pressure, CRP, fasting glucose, and insulin reduced similarly with weight loss in both diets. The VLCHF diet produced greater decreases in triacylglycerols and increases in high-density lipoprotein cholesterol (HDL-C). Low-density lipoprotein cholesterol (LDL-C) remained unchanged in the VLCHF diet.

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Thomson	2010	Changes in Body Weight and Metabolic Indexes in Overweight Breast Cancer Survivors Enrolled in a Randomized Trial of Low-Fat vs. Reduced Carbohydrate Diets	Nutrition and Cancer	University of Arizona / Atkins Foundation	A group of overweight female breast cancer survivors were assigned either a low-fat diet or Modified Atkins Diet. All subjects demonstrated improvements in total/HDL cholesterol ratio, and significant reductions in HbA1c, insulin, and HOMA. Triglycerides levels were significantly reduced only in the low-carbohydrate diet group. Significant improvements in weight and metabolic indexes can be demonstrated among overweight breast cancer survivors adherent to either the Modified Atkins
Tirosh	2013	Renal Function Following Three Distinct Weight Loss Dietary Strategies During 2Years of a Randomized Controlled Trial	Diabetes Care	Harvard Medical School / Israeli Ministry of Healthy & Atkins Foundation	A low-carbohydrate diet is as safe as Mediterranean or low-fat diets in preserving/improving renal function among moderately obese participants with or without type 2 diabetes, with baseline serum creatinine <176 µmol/L. Potential improvement is likely to be mediated by weight loss-induced improvements in insulin sensitivity and blood pressure.
Tonekaboni	2010	Efficacy of the Atkins Diet as Therapy for Intractable Epilepsy in Children	Archives of Iranian Medicine	Research Institute of Endocrine Sciences, Shahid Beheshti Medical University/Funding not listed.	Following three months of treatment with the Atkins diet, 16 patients (67%) had >50% decrease in seizure frequency, and 6 (25%) had >90% improvement, of whom 5 were seizure-free. Mean seizure frequency after the first, second and third months of treatment were significantly lower than at baseline. The
Veldhorst	2010	Presence or absence of carbohydrates and the proportion of fat in a highprotein diet affect appetite suppression but not energy expenditure in normal weight human subjects fed in energy balance	British Journal of Nutrition	Maastricht University / Top Institute Food and Nutrition (Netherlands)	Appetite suppression and fat oxidation were higher on a high-protein diet without than with carbohydrates exchanged for fat. Energy expenditure was not affected by the carbohydrate content of a high-protein diet.

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Vernon	2004	Clinical Experience of a Carbohydrate-Restricted Diet for the Metabolic Syndrome	Metabolic Syndrome and Related Disorders	Duke University Medical Center/Atkins Foundation	In this outpatient program, a carbohydrate-restricted diet and a low-fat/low-calorie plus medication led to weigh loss, but the carbohydrate-restricted diet had a more favorable effect on triglycerides and HDL. Because of the side effects on weight, triglycerides, and HDL, a carbohydrate-restricted diet may be useful for the treatment of metabolic syndrome.
Vernon	2003	Clinical Experience of a Carbohydrate-Restricted Diet: Effect on Diabetes Mellitus	Metabolic Syndrome and Related Disorders	University of Kansas School of Medicine and Duke University Medical Center/Funding not listed.	Low carbohydrate diets lead to a marked improvement in glucose homeostasis in association with a reduction in antidiabetic therapy and weight loss.
Volek	2000	Fasting Lipoprotein and Postprandial Triacylglycerol Responses to a Low-carbohydrate Diet Supplemented With n-3 Fatty Acids	J Am Coll Nutr	Ball State University, Indiana/Funding not listed.	A hypocaloric low-carbohydrate diet rich in MUFA and supplemented with n-3 fatty acids significantly reduced postabsorptive and postprandial TG in men that were not hypertriglyceridemic as a group before the diet. This may be viewed as a clinically significant positive adaptation in terms of cardiovascular risk status.
Volek	2003	An Isoenergetic Very Low Carbohydrate Diet Improves Serum HDL Cholesterol and Triacylglycerol Concentrations, the Total Cholesterol to HDL Cholesterol Ratio and Postprandial Lipemic Responses Compared With a Low Fat Diet in	J Nutr	University of Connecticut/Atkins Foundation	In normal weight, normolipidemic women, a short-term very low carbohydrate diet modestly increased LDL-C, yet there were favorable effects on cardiovascular disease risk status by virtue of a relatively larger increase in HDL-C and a decrease in fasting and postprandial triacylglycerols.

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Author	Year	Title	Journal	University/Funding	Summary
Volek	2008	Carbohydrate Restriction has a More Favorable Impact on the Metabolic Syndrome than a Low Fat Diet	Lipids	University of Connecticut/University of Connecticut, US; Department of Agriculture Hatch, Atkins Foundation, Egg Nutrition Center, and the Research Foundation of the State University of New York	Both interventions led to improvements in several metabolic markers, but subjects following the CRD had consistently reduced glucose (-12%) and insulin (-50%) concentrations, insulin sensitivity (-55%), weight loss (-10%), decreased adiposity (-14%), and more favorable triacylglycerol (TAG) (-51%), HDL-C (13%) and total cholesterol/HDL-C ratio (-14%) responses. In addition to these markers for MetS, the CRD subjects showed more favorable responses to alternative indicators of cardiovascular risk: postprandial lipemia (-47%), the Apo B/Apo A-1 ratio (-16%), and LDL particle distribution. The results support the use of dietary carbohydrate restriction as an
Volek	2004	Comparison of a Very Low-Carbohydrate and Low-Fat Diet on Fasting Lipids, LDL Subclasses, Insulin Resistance, and Postprandial Lipemic	J Am Coll Nutr	University of Connecticut/Atkins Foundation	Compared to a low-fat weight loss diet, a short-term very low-carbohydrate diet did not lower LDL-C but did prevent the decline in HDL-C and resulted in improved insulin sensitivity in overweight and obese, but otherwise healthy women. Small
Volek	2009	Effects of Dietary Carbohydrate Restriction Versus Low-fat Diet on Flow-mediated Dilation.	Metabolism	University of Connecticut/University of Connecticut, US; Department of Agriculture Hatch, Atkins Foundation, Egg Nutrition	These findings show that a 12-week low-carbohydrate diet improves postprandial vascular function more than a LFD in individuals with atherogenic dyslipidemia.
Volek	2004	Comparison of Energy-restricted Very Low-carbohydrate and Low-fat Diets on Weight Loss and Body Composition in Overweight Men and Women	Nutr Metab (Lond)	University of Connecticut/Atkins Foundation	This study shows a clear benefit of a VLCK over LF diet for short-term body weight and fat loss, especially in men. A preferential loss of fat in the trunk region with a VLCK diet is novel and potentially clinically significant but requires further validation.

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Volek	2002	Body Composition and Hormonal Responses to a Carbohydrate-restricted Diet	Metabolism	University of Connecticut/Atkins Foundation	Authors conclude that a carbohydrate-restricted diet resulted in a significant reduction in fat mass and a concomitant increase in lean body mass in normal-weight men, which may be partially mediated by the reduction in circulating insulin concentrations.
Volek	2012	The twisted tale of saturated fat	Lipid Technology	Univeristy of Connecticut / Funding not listed.	Increased circulating levels of saturated fat are associated with increased risks for insulin resistance, type 2 diabetes, and heart attack. Instead of telling everyone to restrict dietary saturated fat, a more rational and effective strategy would be to focus on ways to help people find their 'right' level.
Volek	2002	Very-low-carbohydrate Weight-loss Diets Revisited	Cleve Clin J Med	University of Connecticut/Atkins Foundation	This review demonstrates that much scientific and anecdotal data demonstrate favorable metabolic responses to very-low-carbohydrate diets.
Volek Forsythe	2010	Limited Effect of Dietary Saturated Fat on Plasma Saturated Fat in the Context of a Low Carbohydrate Diet	Lipids	University of Connecticut/American Egg Board Egg-Dissertation Fellowship in Nutrition	Authors showed that a hypocaloric carbohydrate restricted diet (CRD) had two striking effects: (1) a reduction in plasma saturated fatty acids (SFA) despite higher intake than a low fat diet, and (2) a decrease in inflammation despite a significant increase in arachidonic acid (ARA). These findings are consistent with the concept that dietary saturated fat is efficiently metabolize in the presence of low carbohydrate, and that a CRD results in better preservation of plasma ARA.

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Volk	2014	Effects of Step-Wise Increases in Dietary Carbohydrate on Circulating Saturated Fatty Acids and Palmitoleic Acid in Adults with Metabolic Syndrome	PlosOne	University of Con. / Dairy Research Institute, The Beef Checkoff, Egg Nutrition Center, Atkins Foundation	The results show that dietary and plasma saturated fat are not related, and that increasing dietary carbohydrate across a range of intakes promotes incremental increases in plasma palmitoleic acid, a biomarker consistently associated with adverse health outcomes.
Walsh	2013	Effects of Diet Composition on Postprandial Energy Availability during Weight Loss Maintenance	PlosOne	Children's Hospital Boston/National Institute of Diabetes and Digestive and Kidney Diseases	These findings suggest that a Low Fat diet may adversely affect postprandial Energy Availability and risk for weight regain during weight loss maintenance.
Weber	2009	Modified Atkins Diet to Children and Adolescents With Medical Intractable Epilepsy	Seizure	Clinic of Child Neurology	After 3months six out of the fifteen children (40%) had a seizure reduction of more than 50%, which was seen in different epileptic syndromes and different age groups. The responders reported an increase in quality of life and cognition. At 12 months follow-up 3 (20%) continued the diet with an unchanged marked seizure reduction. The present study confirms the high tolerability and effect of the modified Atkins diet on seizure control in AED treatment resistant epilepsy.
Westman	2004	A Pilot Study of a Low-Carbohydrate, Ketogenic Diet for Obesity-Related Polycystic Ovary Syndrome	Journal of General Internal Medicine	Duke University/Funding not listed.	Polycystic ovary syndrome (PCOS) is the most common endocrine disorder among women of reproductive age, and is frequently associated with central obesity, insulin resistance, and dyslipidemia. Because recent evidence demonstrates that a low carbohydrate ketogenic diet (LCKD) leads to weight loss and

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Author	Year	Title	Journal	University/Funding	Summary
Westman	2002	Effect of 6-month Adherence to a Very Low Carbohydrate Diet Program	Am J Med	Duke University/Atkins Center for Complementary Medicine	In these subjects, the mean body weight decreased 10.3% +/- 5.9% from baseline to 6 months. The mean percentage of body weight that was fat decreased 2.9% +/- 3.2% from baseline to 6 months. Serum total cholesterol level decreased 11 +/- 26 mg/dL, low-density lipoprotein cholesterol level decreased 10 +/- 25 mg/dL, triglyceride level decreased 56 +/- 45 mg/dL, high-density lipoprotein (HDL) cholesterol level increased 10 +/- 8
Westman	2008	The Effect of a Low-carbohydrate, Ketogenic Diet Versus a Low-glycemic Index Diet on Glycemic Control in Type 2 Diabetes Mellitus	Nutrition & Metabolism	Duke University Medical Center/Atkins Foundation	Dietary modification led to improvements in glycemic control and medication reduction/elimination in motivated volunteers with type 2 diabetes. The diet lower in carbohydrate led to greater improvements in glycemic control, and more frequent medication reduction/elimination than the low glycemic index diet. Lifestyle modification using low carbohydrate interventions is effective for improving and reversing type 2 diabetes.
Westman	2003	A Review of Low-carbohydrate Ketogenic Diets	Curr Atheroscler Rep	Duke University/Atkins Center for Complementary Medicine	In response to the emerging epidemic of obesity in the United States, a renewal of interest in alternative diets has occurred, especially in diets that limit carbohydrate intake. Recent research has demonstrated that low-carbohydrate ketogenic diets can lead to weight loss and favorable changes in serum triglycerides and high-density lipoprotein cholesterol. This review summarizes the physiology and recent clinical studies
Yamada	2014	A Non-calorie-restricted Low-carbohydrate Diet is Effective as an Alternative Therapy for Patients with Type 2 Diabetes	Internal Medicine	Diabetes Center, Kitasato Institute Hospital, Japan / Funding not listed	Findings suggest that a low-carbohydrate diet is effective in lowering the HbA1c and triglyceride levels in patients with type 2 diabetes who are unable to adhere to a calorie-restricted diet.

PUBLISHED STUDIES SUPPORTING ATKINS

Author	Year	Title	Journal	University/Funding	Summary
Yancy	2001	Improvement of Gastroesophageal Reflux Disease After Initiation of a Low-carbohydrate Diet: Five Brief Case Reports	Altern Ther Health Med	Department of Veterans Affairs, North Carolina/Funding not listed.	Observations from some of these individuals suggest that carbohydrates may be a precipitating factor for GERD symptoms and that other classic exacerbating foods such as coffee and fat may be less pertinent when a low-carbohydrate diet is followed.
Yancy	2003	A Pilot Trial of a Low-Carbohydrate, Ketogenic Diet in Patients with Type 2 Diabetes	Metabolic Syndrome and Related Disorders	Durham Veterans Affairs Medical Center, North Carolina/Funding not listed.	The study focused on overweight individuals with BMI >25 and being treated with OHA (oral hypoglycemic agents) or insulin that were placed on a LCKD (low carbohydrate ketogenic diet) for 16 weeks. Anthropometric changes include: Body weight = -10%, BMI = -10%, Waist circumference = -7%, Body fat % = -3%, Systolic BP = -9%, Diastolic BP = -15%, Heart Rate = -12%, HDL = no change.
Yancy	2004	A Low-Carbohydrate, Ketogenic Diet versus a Low-Fat Diet To Treat Obesity and Hyperlipidemia: A Randomized, Controlled Trial	Ann Intern Med	Department of Veterans Affairs, North Carolina/Atkins Foundation	Compared with a low-fat diet, a low-carbohydrate diet program had better participant retention and greater weight loss. During active weight loss, serum triglyceride levels decreased more and high-density lipoprotein cholesterol level increased more with the low-carbohydrate diet than with the low-fat diet.