PreKure™ prevention is cure

Top 10 LCHF Research Papers

THE TOP 10 INFLUENTIAL LCHF RESEARCH PAPERS SELECTED BY THE PREKURE FACULTY

1 Forsythe, CE., Phinney, SD., Fernandez, ML., et al. Lipids. 2008; 43: 65–77 Comparison of Low Fat and Low Carbohydrate Diets on Circulating Fatty Acid Composition and Markers of Inflammation. Lipids. 2008; 43: 65–77

https://www.ncbi.nlm.nih.gov/pubmed/18046594

This classic LCHF v conventional low fat diets supporting low carb in all metabolic and importantly inflammatory markers compared to the conventional best practice.

Importantly the low carb treatment is profoundly anti-inflammatory the conventional diet is not.

2 Volek JS, Phinney SD, Forsythe CE, Quann EE, Wood RJ, Puglisi MJ, Kraemer WJ, Bibus DM, Fernandez ML, Feinman RD. Carbohydrate restriction has a more favorable impact on the metabolic syndrome than a low fat diet. Lipids. 2009; 44: 297-309. doi: 10.1007/s11745-008-3274-2.

https://link.springer.com/article/10.1007/s11745-008-3274-2

More on the same study, different paper.

12 week, metabolic ward study (very well-controlled) RCT 1500Cal diet on 40 people with lipid abnormalities: mainstream = control; LCHF = intervention.

Outcomes: LCHF outperformed the control diet in every domain of metabolic health from body composition, to lipid profile to inflammatory markers. What's more, LCHF (which contained triple the amount of saturated fat than the control diet) resulted in an overall greater reduction in saturated fat in the bloodstream.

The results support the use of dietary carbohydrate restriction as an effective approach to improve features of metabolic syndrome, cardiovascular risk and systemic inflammation.

3 Paoli A1, Rubini A, Volek JS, Grimaldi KA. (2013). Beyond weight loss: a review of the therapeutic uses of very-low-carbohydrate (ketogenic) diets. Eur J Clin Nutr. Aug; 67(8): 789-96. doi: 10.1038/ejcn.2013.116.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3826507/

This is an excellent review of therapeutic applications of LCHF/keto.

Recent work over the last decade or so has provided evidence of the therapeutic potential of ketogenic diets in many pathological conditions. The possibility that modifying food intake can be useful for reducing or eliminating pharmaceutical methods of treatment, which are often lifelong with significant side effects, calls for serious investigation.

Individuals with **metabolic syndrome, insulin resistance** and **T2D** (all diseases of carbohydrate intolerance) are likely to see symptomatic as well as objective improvements in biomarkers of disease risk if they follow a well-formulated very-low-carbohydrate diet.

4 Gardner CD, Kiazand A, Kim S, Stafford RS, Balise RR, Kraemer HC, et al. (2007). Comparison of the Atkins, Zone, Ornish, and LEARN Diets for Change in Weight and Related Risk Factors Among Overweight Premenopausal Women. J Am Med Assoc; 297: 969–978.

This is the most important head-to-head diet trial conducted. Typically the control group in many trials is the standard American diet and any diet shows improvement over this, however, this study differs as it compares popular diets between themselves.

https://www.ncbi.nlm.nih.gov/pubmed/17341711

RCT comparing outcomes from **Atkins** (very low in carbohydrate), **Zone** (low in carbohydrate), **LEARN** (Lifestyle, Exercise, Attitudes, Relationships, and Nutrition; low in fat, high in carbohydrate, based on national guidelines), and **Ornish** (very high in carbohydrate) dietary approaches.

Results displayed weight loss and metabolic superiority for LCHF. Overweight and obese premenopausal women, those assigned to follow the Atkins diet had more weight loss and more favourable outcomes for metabolic effects at 1 year than women assigned the other diets.

5 Shai I, Schwarzfuchs D, Henkin Y, Shahar DR, Witkow S, Greenberg I, Golan R, Fraser D, Bolotin A, Vardi H, Tangi-Rozental O, Zuk-Ramot R, Sarusi B, Brickner D, Schwartz Z, Sheiner E, Marko R, Katorza E, Thiery J, Fiedler GM, Blüher M, Stumvoll M, Stampfer MJ. Weight loss with a low-carbohydrate, Mediterranean, or low-fat diet Dietary Intervention Randomized Controlled Trial (DIRECT) Group. N Engl J Med. 2008; 359: 229-41

https://www.nejm.org/doi/full/10.1056/NEJMoa0708681

A second head-to-head diet study showing the superiority of the low carb treatment. Shai et al. findings show that the LCHF diet is clearly superior for weight loss in comparison to a low fat diet. This study has excellent follow-up, high adherence rates and long term follow up.

6 Westman EC, Yancy WS, Mavropoulos JC, Marquart M, McDuffie JR. The effect of a low-carbohydrate, ketogenic diet versus a low-glycemic index diet on glycemic control in type 2 diabetes mellitus. Nutr Metab (Lond). 2008; 5: 36. doi: 10.1186/1743-7075-5-36.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633336/

Both groups, low carbohydrate and low-glycemic, reduced-calorie diet led to improvements in glycemic control and medication reduction/ elimination in motivated volunteers with type 2 diabetes. However, the low carb diet led to greater improvements in glycemic control, and more frequent medication reduction/ elimination. Hence it was concluded that lifestyle modification using low carbohydrate interventions is effective for improving and reversing type 2 diabetes.

7 Thornley S, Henderson G, Schofield G. (2015). Chewing the saturated fat: how many more negative studies do we need? NZ Med J. Sep 4; 128 (1421): 80-1.

https://www.nzma.org.nz/__data/assets/pdf_file/0003/44292/Thornley-19361421.pdf

While the negative evidence continues to accumulate, and continues to be dismissed, the public are advised to eschew the saturated fat, and focus on restricting components of the diet that are consistently associated with poor health: sugar and starch.

In this opinion paper we critically review the (lack of) evidence saturated fat having any useful target in public health nutrition. This is an important debate because you will likely eat more saturated fat on a LCHF diet, but is that justified?

8 **Ludwig, David & B. Ebbeling, Cara. (2018). The Carbohydrate-Insulin Model of Obesity: Beyond "Calories In, Calories Out". JAMA Internal Medicine. 178. 10.1001/jamainternmed.2018.2933**

https://cpncampus.com/biblioteca/files/original/d7d5b8bbc070ca1d21435b523f7486b7.pdf

9 **Jeppesen J, Hein HO, Suadicani P, Gyntelberg F. (2001). Low triglycerides-high high-density lipoprotein cholesterol and risk of ischemic heart disease. Arch Intern Med. 2001 Feb 12; 161(3): 361-6.**

https://www.ncbi.nlm.nih.gov/pubmed/11176761

This paper looks at the underlying science behind why LCHF works.

Findings show that a low TG/HDL ratio decreases risk of IHD (heart attack) across 4 categories of risk — high BP, high LDL, smoking, low physical activity. Observational cohort study of 2906 men aged 53 to 74 years free of IHD at baseline, 8 year follow-up.

The incidence in men with high TG/low HDL-C levels was 9.8% to 12.2% in the low-risk and 12.2% to 16.4% in the high-risk strata; the corresponding values in men with low TG/high HDL-C concentrations were 4.0% to 5.1% and 3.7% to 5.3%, respectively.

Men with low TG/HDL (defined as TG </=1.09 [</=97 mg/dL] and HDL-C >/ =1.48 mmol/L [>/=57 mg/dL]) were protected against the increased risk of heart attack attributed to LDL-cholesterol (and other risk factors), men with high TG/HDL were not.

10 **Virta diabetes treatment trial outcome summaries (online).**

https://www.virtahealth.com/research

The Virta treatment demonstrates that with restricted carbohydrate intake and nutritional ketosis, patients can safely improve health outcomes associated with type 2 diabetes, obesity, atherogenic dyslipidaemia, hypertension, and inflammation. This includes an over 50% remission of diabetes and pre-diabetes at two years.