

Roundup - October 2021

New this month in therapeutic carbohydrate restriction and metabolic health.

Reviews/Mechanisms

1. Fanara S, Aprile M, Iacono S, et al. The Role of Nutritional Lifestyle and Physical Activity in **Multiple Sclerosis** Pathogenesis and Management: A Narrative Review. *Nutrients*. 2021;13(11):3774. doi:[10.3390/nu13113774](https://doi.org/10.3390/nu13113774)
2. Argüello C. Revisiting Evidence for Recommending a Gluten- Free Diet in **Schizophrenia** - Review and Presentation. [Researchgate/355184985](https://www.researchgate.net/publication/355184985). November 2021.
3. Ishak AI, Harikrishna AH, Chrysostomou SC, Karpettas NK. Should we really avoid fat in diet? The beneficial effects of low carbohydrate diet versus low fat diet on **cardiovascular health**: a systematic review and meta-analysis. *European Heart Journal*. 2021;42(Supplement_1). doi:[10.1093/eurheartj/ehab724.2427](https://doi.org/10.1093/eurheartj/ehab724.2427)
4. Calcaterra V, Verduci E, Ghezzi M, et al. **Pediatric Obesity-Related Asthma**: The Role of Nutrition and Nutrients in Prevention and Treatment. *Nutrients*. 2021;13(11):3708. doi:[10.3390/nu13113708](https://doi.org/10.3390/nu13113708)
5. Alsharairi NA. The Role of Short-Chain Fatty Acids in Mediating Very Low-Calorie **Ketogenic Diet-Infant Gut Microbiota** Relationships and Its Therapeutic Potential in Obesity. *Nutrients*. 2021;13(11):3702. doi:[10.3390/nu13113702](https://doi.org/10.3390/nu13113702)
6. Caminha MC, Moreira AB, Matheus FC, et al. Efficacy and tolerability of the ketogenic diet and its variations for preventing **migraine** in adolescents and adults: a systematic review. *Nutrition Reviews*. 2021;(nuab080). doi:[10.1093/nutrit/nuab080](https://doi.org/10.1093/nutrit/nuab080)
7. Foley PJ. Effect of low carbohydrate diets on insulin resistance and the **metabolic syndrome**. *Current Opinion in Endocrinology, Diabetes, and Obesity*. 2021;28(5):463. doi:[10.1097/MED.0000000000000659](https://doi.org/10.1097/MED.0000000000000659)
8. Lane J, Brown NI, Williams S, Plaisance EP, Fontaine KR. Ketogenic Diet for **Cancer**: Critical Assessment and Research Recommendations. *Nutrients*. 2021;13(10):3562. doi:[10.3390/nu13103562](https://doi.org/10.3390/nu13103562)
9. White H, Heffernan AJ, Worrall S, Grunfeld A, Thomas M. A Systematic Review of **Intravenous β -Hydroxybutyrate** Use in Humans – A Promising Future Therapy? *Frontiers in Medicine*. 2021;8. doi:[10.3389/fmed.2021.740374](https://doi.org/10.3389/fmed.2021.740374)
10. Valenzuela PL, Castillo-García A, Lucia A, Naclerio F. Effects of Combining a Ketogenic Diet with **Resistance Training** on Body Composition, Strength, and Mechanical Power in Trained Individuals: A Narrative Review. *Nutrients*. 2021;13(9). doi:[10.3390/nu13093083](https://doi.org/10.3390/nu13093083)
11. Gunaseelan L, Khan US, Khalid F, Hamid MA. **Non-alcoholic Fatty Liver Disease** and Carbohydrate Restricted Diets: A Case Report and Literature Review. *Cureus*. 2021;13(10). doi:[10.7759/cureus.18641](https://doi.org/10.7759/cureus.18641)
12. Tang Y, Wang Q, Liu J. **Microbiota-gut-brain axis**: A novel potential target of ketogenic diet for epilepsy. *Current Opinion in Pharmacology*. 2021;61:36-41. doi:[10.1016/j.coph.2021.08.018](https://doi.org/10.1016/j.coph.2021.08.018)

Trials/Studies

1. Zainordin NA, Warman NAE, Mohamad AF, et al. Safety and efficacy of very low carbohydrate diet in patients with **diabetic kidney disease**—A randomized controlled trial. *PLOS ONE*. 2021;16(10):e0258507. doi:[10.1371/journal.pone.0258507](https://doi.org/10.1371/journal.pone.0258507)
2. Neuman V, Plachy L, Pruhova S, et al. Low-Carbohydrate Diet among Children with **Type 1 Diabetes**: A Multi-Center Study. *Nutrients*. 2021;13(11):3903. doi:[10.3390/nu13113903](https://doi.org/10.3390/nu13113903)
3. Oliver D, Andrews K. Brief intervention of **low carbohydrate dietary advice**: clinic results and a review of the literature. *Current Opinion in Endocrinology, Diabetes and Obesity*. 2021;28(5):496-502. doi:[10.1097/MED.0000000000000665](https://doi.org/10.1097/MED.0000000000000665) (**Android & iOS Freshwell app** - 6 weeks of modules to help with implementation)
4. Che T, Yan C, Tian D, Zhang X, Liu X, Wu Z. Time-restricted feeding improves blood glucose and insulin sensitivity in overweight patients with **type 2 diabetes**: a randomised controlled trial. *Nutr Metab (Lond)*. 2021;18(1):88. doi:[10.1186/s12986-021-00613-9](https://doi.org/10.1186/s12986-021-00613-9)
5. Gribbin S, Enticott J, Hodge AM, et al. Association of carbohydrate and saturated fat intake with **cardiovascular disease** and mortality in Australian women. *Heart*. Published online September 11, 2021. doi:[10.1136/heartjnl-2021-319654](https://doi.org/10.1136/heartjnl-2021-319654)
6. Titcomb TJ, Brooks L, Smith KL, et al. Change in Micronutrient Intake among People with Relapsing-Remitting **Multiple Sclerosis** Adapting the Swank and Wahls Diets: An Analysis of Weighed Food Records. *Nutrients*. 2021;13(10):3507. doi:[10.3390/nu13103507](https://doi.org/10.3390/nu13103507)
7. Offringa LC, Hartle JC, Rigdon J, Gardner CD. **Changes in Quantity and Sources of Dietary Fiber** from Adopting Healthy Low-Fat vs. Healthy Low-Carb Weight Loss Diets: Secondary Analysis of DIETFITS Weight Loss Diet Study. *Nutrients*. 2021;13(10):3625. doi:[10.3390/nu13103625](https://doi.org/10.3390/nu13103625)
8. Ma Y, Sun Y, Sun L, et al. Effects of **gut microbiota and fatty acid metabolism** on dyslipidemia following weight-loss diets in women: Results from a randomized controlled trial. *Clin Nutr*. 2021;40(11):5511-5520. doi:[10.1016/j.clnu.2021.09.021](https://doi.org/10.1016/j.clnu.2021.09.021)
9. Maiorana A, Caviglia S, Greco B, et al. Ketogenic diet as elective treatment in patients with drug-unresponsive hyperinsulinemic hypoglycemia caused by **glucokinase mutations**. *Orphanet J Rare Dis*. 2021;16(1):424. doi:[10.1186/s13023-021-02045-3](https://doi.org/10.1186/s13023-021-02045-3)
10. Staretz-Chacham O, Pode-Shakked B, Kristal E, et al. The Effects of a Ketogenic Diet on Patients with **Dihydroipoamide Dehydrogenase Deficiency**. *Nutrients*. 2021;13(10):3523. doi:[10.3390/nu13103523](https://doi.org/10.3390/nu13103523)
11. Ünalp A, Baysal BT, Saritaş S, et al. Evaluation of the effects of ketogenic diet therapy on **sleep** quality in children with drug-resistant **epilepsy** and their mothers. *Epilepsy Behav*. 2021;124:108327. doi:[10.1016/j.yebeh.2021.108327](https://doi.org/10.1016/j.yebeh.2021.108327)
12. Tavakoli A, Mirzababaei A, Mirzaei K. Association between low carbohydrate diet (LCD) and **sleep** quality by mediating role of inflammatory factors in women with overweight and obesity: A cross-sectional study. *Food Science & Nutrition*. 2021. doi:[10.1002/fsn3.2584](https://doi.org/10.1002/fsn3.2584)

13. Christensen RAG, High S, Wharton S, et al. Sequential diets and **weight loss**: Including a low-carbohydrate high-fat diet with and without time-restricted feeding. *Nutrition*. 2021;91-92:111393. doi:[10.1016/j.nut.2021.111393](https://doi.org/10.1016/j.nut.2021.111393)
14. Tan-Smith C, Little H, Fabe J, Dickson C, Shillito P. Increase of Human Milk Fat Inducing **Nutritional Ketosis in Exclusively Breastfed Infant**, Brought About by Treating the Mother With Ketogenic Dietary Therapy. *J Hum Lact*. Published online October 5, 2021:8903344211048422. doi:[10.1177/08903344211048422](https://doi.org/10.1177/08903344211048422)

Protocols only - ongoing clinical trials

1. De Marchi F, Collo A, Scognamiglio A, et al. Study protocol on safety and feasibility of a normocaloric ketogenic diet in **Amyotrophic Lateral Sclerosis** patients. *Nutrition*. Published online October 23, 2021:111525. doi:[10.1016/j.nut.2021.111525](https://doi.org/10.1016/j.nut.2021.111525) (ongoing clinical trial)
2. Kirkham AA, King K, Joy AA, et al. Rationale and design of the Diet Restriction and Exercise-induced Adaptations in **Metastatic breast cancer** (DREAM) study: a 2-arm, parallel-group, phase II, randomized control trial of a short-term, calorie-restricted, and ketogenic diet plus exercise during intravenous chemotherapy versus usual care. *BMC Cancer*. 2021;21(1):1093. doi:[10.1186/s12885-021-08808-2](https://doi.org/10.1186/s12885-021-08808-2) (ongoing clinical trial)