

Roundup - May 2022

New this month in therapeutic carbohydrate restriction and metabolic health.

Reviews/Mechanisms

1. Cunnane, S.C. *et al.* (2022) 'Multimodal strategy to rescue the brain in **mild cognitive impairment**: ketogenic oral nutrition supplementation with B vitamins and aerobic exercise', *European Journal of Clinical Investigation*, p. e13806. doi:[10.1111/eci.13806](https://doi.org/10.1111/eci.13806).
2. Pietrzak, D. *et al.* (2022) 'The Therapeutic Role of Ketogenic Diet in **Neurological Disorders**', *Nutrients*, 14(9), p. 1952. doi:[10.3390/nu14091952](https://doi.org/10.3390/nu14091952).
3. Jayedi, A. *et al.* (2022) 'Dose-dependent effect of carbohydrate restriction for **type 2 diabetes** management: a systematic review and dose-response meta-analysis of randomized controlled trials', *The American Journal of Clinical Nutrition*, p. nqac066. doi:[10.1093/ajcn/nqac066](https://doi.org/10.1093/ajcn/nqac066). ABSTRACT
4. Sripongpun, P., Churuangsuk, C. and Bunchorntavakul, C. (2022) 'Current Evidence Concerning Effects of Ketogenic Diet and Intermittent Fasting in Patients with **Nonalcoholic Fatty Liver**', *Journal of Clinical and Translational Hepatology*, 0(000), pp. 0–0. doi:[10.14218/JCTH.2021.00494](https://doi.org/10.14218/JCTH.2021.00494).

LMHR Debate

1. Norwitz, N.G. *et al.* (2022) 'The **Lipid Energy Model**: Reimagining Lipoprotein Function in the Context of Carbohydrate-Restricted Diets', *Metabolites*, 12(5), p. 460. doi:[10.3390/metabo12050460](https://doi.org/10.3390/metabo12050460).
2. Mindrum, M.R. (2022) 'Let's Be Clear about Expected Cardiovascular Risk: A Commentary on the Massive Rise in LDL Cholesterol Induced by Carbohydrate Restriction in the Proposed "Lean Mass Hyper-Responder" Phenotype', *Current Developments in Nutrition*, 6(5), p. nzac042. doi:[10.1093/cdn/nzac042](https://doi.org/10.1093/cdn/nzac042).
3. Moore, J.M. *et al.* (2022) 'Evidence for a Lean Mass Hyperresponder Phenotype Is Lacking with Increases in LDL Cholesterol of Clinical Significance in All Categories of Response to a Carbohydrate-Restricted Diet', *Current Developments in Nutrition*, 6(5), p. nzac043. doi:[10.1093/cdn/nzac043](https://doi.org/10.1093/cdn/nzac043).
4. Ludwig, D.S. *et al.* (2022) '**Reply** to M Mindrum and J Moore *et al.*', *Current Developments in Nutrition*, 6(5), p. nzac029. doi:[10.1093/cdn/nzac029](https://doi.org/10.1093/cdn/nzac029).

Trials/Studies

1. Zdzieblik, D. *et al.* (2022) 'Effect of a High Fat Diet vs. High Carbohydrate Diets With Different Glycemic Indices on Metabolic Parameters in Male **Endurance Athletes**: A Pilot Trial', *Frontiers in Nutrition*, 9, p. 802374. doi:[10.3389/fnut.2022.802374](https://doi.org/10.3389/fnut.2022.802374).
2. Lin, P.-H., Howard, L. and Freedland, S.J. (2022) 'Weight loss via a low-carbohydrate diet improved the **intestinal permeability** marker, zonulin, in prostate cancer patients', *Annals of Medicine*, 54(1), pp. 1221–1225. doi:[10.1080/07853890.2022.2069853](https://doi.org/10.1080/07853890.2022.2069853).

3. Henderson, L., van den Berg, M. and Shaw, D.M. (2022) 'The Effect of a 2-Week Ketogenic Diet, versus a Carbohydrate-Based Diet, on Cognitive Performance, Mood and Subjective Sleepiness during **36 Hours of Extended Wakefulness** in Military Personnel', *Medical Sciences Forum*, 9(1), p. 22. doi:[10.3390/msf2022009022](https://doi.org/10.3390/msf2022009022).
4. Darcey, V.L. *et al.* (2022) Restriction of dietary fat, but not carbohydrate, alters **brain reward circuitry** in adults with obesity. preprint. Neuroscience. doi:[10.1101/2022.04.19.488800](https://doi.org/10.1101/2022.04.19.488800).
5. Barrea, L. *et al.* (2022) 'From the Ketogenic Diet to the Mediterranean Diet: The Potential Dietary Therapy in Patients with Obesity after CoVID-19 Infection (**Post CoVID Syndrome**)', *Current Obesity Reports* [Preprint]. doi:[10.1007/s13679-022-00475-z](https://doi.org/10.1007/s13679-022-00475-z).
6. Pisocri, E., Cimorelli, M. and Cerutti, N. (2022) 'Ketogenic diet and Glucagon-like peptide 1 (GLP1) receptor agonists for **obesity**: our experience', in *Endocrine Abstracts. ECE 2022, 24th European Congress of Endocrinology*, Bioscientifica. doi:[10.1530/endoabs.81.EP323](https://doi.org/10.1530/endoabs.81.EP323). ABSTRACT
7. Pandurevic, S. *et al.* (2022) 'Efficacy of very low calorie ketogenic diet in obese **PCOS**: a randomized controlled study', in *Endocrine Abstracts. ECE 2022, 24th European Congress of Endocrinology*, Bioscientifica. doi:[10.1530/endoabs.81.P193](https://doi.org/10.1530/endoabs.81.P193).
8. Stapel, B. *et al.* (2022) 'Impact of fasting on stress systems and **depressive symptoms** in patients with major depressive disorder: a cross-sectional study', *Scientific Reports*, 12, p. 7642. doi:[10.1038/s41598-022-11639-1](https://doi.org/10.1038/s41598-022-11639-1).
9. Deru, L. *et al.* (2022) 'Understanding the **endocrine** response to macronutrients in the context of a ketogenic diet', *The FASEB Journal*, 36(S1). doi:[10.1096/fasebj.2022.36.S1.R6073](https://doi.org/10.1096/fasebj.2022.36.S1.R6073). ABSTRACT
10. Kim, E.R. *et al.* (2022) 'Short Term Isocaloric Ketogenic Diet Modulates **NLRP3 Inflammasome** Via B-hydroxybutyrate and Fibroblast Growth Factor 21', *Frontiers in Immunology*, 13, p. 843520. doi:[10.3389/fimmu.2022.843520](https://doi.org/10.3389/fimmu.2022.843520).
11. Sun, S. *et al.* (2022) 'Effects of Low-Carbohydrate Diet and Exercise Training on **Gut Microbiota**', *Frontiers in Nutrition*, 9, p. 884550. doi:[10.3389/fnut.2022.884550](https://doi.org/10.3389/fnut.2022.884550).
12. Namgoung, S. *et al.* (2022) 'Metabolically healthy and unhealthy obesity and risk of **vasomotor symptoms in premenopausal women**: cross-sectional and cohort studies', *BJOG: an international journal of obstetrics and gynaecology* [Preprint]. doi:[10.1111/1471-0528.17224](https://doi.org/10.1111/1471-0528.17224).
13. Lorenzo, P.M. *et al.* (2022) '**Immunomodulatory effect** of a very-low-calorie ketogenic diet compared with bariatric surgery and a low-calorie diet in patients with excessive body weight', *Clinical Nutrition*, 0(0). doi:[10.1016/j.clnu.2022.05.007](https://doi.org/10.1016/j.clnu.2022.05.007).
14. Barrea, L. *et al.* (2022) 'Phase angle as an easy diagnostic tool for the nutritionist in the evaluation of **inflammatory changes** during the active stage of a very low-calorie ketogenic diet', *International Journal of Obesity (2005)* [Preprint]. doi:[10.1038/s41366-022-01152-w](https://doi.org/10.1038/s41366-022-01152-w).
15. Gardner, C.D. *et al.* (2022) 'Effect of a Ketogenic Diet versus Mediterranean Diet on HbA1c in Individuals with **Prediabetes** and Type 2 Diabetes Mellitus: the

- Interventional Keto-Med Randomized Crossover Trial', *The American Journal of Clinical Nutrition*, p. nqac154. doi:[10.1093/ajcn/nqac154](https://doi.org/10.1093/ajcn/nqac154).
16. Hao, Y. *et al.* (2022) Association of **Pre-pregnancy** low-carbohydrate diet with maternal oral glucose tolerance test levels in Gestational Diabetes. preprint. In Review. doi:[10.21203/rs.3.rs-1618435/v1](https://doi.org/10.21203/rs.3.rs-1618435/v1). (serves as a reminder to consider increasing CHO intake before OGTT glucose challenge - >150g CHO for 3 days, [Klein et al.](#))
17. Tozzi, R. *et al.* (2022) 'Reduction in Oxytocin levels predict body weight loss in patients with **obesity** after a very low carbohydrate ketogenic diet (VLCKD)', in *Endocrine Abstracts. ECE 2022, 24th European Congress of Endocrinology*, Bioscientifica. doi:[10.1530/endoabs.81.EP358](https://doi.org/10.1530/endoabs.81.EP358).