

Roundup - January 2023

New this month in therapeutic carbohydrate restriction and metabolic health.

Metabolic (Diabetes/Obesity/CVD and other)

1. Du, Y., Oh, C. and No, J. (2023) 'Effects of the ketogenic diet on components of the metabolic syndrome: A systematic review and meta-analysis', *Nutrition Clinique et Métabolisme* [Preprint]. Available at: <https://doi.org/10.1016/j.nupar.2022.11.002>.
2. Dyńska, D. *et al.* (2023) 'Effect of the Ketogenic Diet on the Prophylaxis and Treatment of Diabetes Mellitus: A Review of the Meta-Analyses and Clinical Trials', *Nutrients*, 15(3), p. 500. Available at: <https://doi.org/10.3390/nu15030500>.
3. Hantoushzadeh, S. *et al.* (2023) 'Glucose metabolism tests and recurrent pregnancy loss: evidence from a systematic review and meta-analysis', *Diabetology & Metabolic Syndrome*, 15(1), p. 3. Available at: <https://doi.org/10.1186/s13098-022-00973-z>.
4. Unwin, D. *et al.* (2023) 'What predicts drug-free type 2 diabetes remission? Insights from an 8-year general practice service evaluation of a lower carbohydrate diet with weight loss', *BMJ Nutrition, Prevention & Health*, p. e000544. Available at: <https://doi.org/10.1136/bmjnph-2022-000544>.
5. Soto-Mota, A. *et al.* (2023) 'Evidence for the Carbohydrate-Insulin Model in a Reanalysis of the DIETFITS Trial', *The American Journal of Clinical Nutrition* [Preprint]. Available at: <https://doi.org/10.1016/j.ajcnut.2022.12.014>.
6. Teicholz, N. (2023) 'A short history of saturated fat: the making and unmaking of a scientific consensus', *Current Opinion in Endocrinology, Diabetes & Obesity*, 30(1), pp. 65–71. Available at: <https://doi.org/10.1097/MED.0000000000000791>.
7. Sommersten, C.H. *et al.* (2022) 'Relationship between Ketones, Ghrelin, and, Appetite on Isocaloric Diets with Varying Carbohydrate Quality and Amount: Results from a Randomized Controlled Trial in People with Obesity (CARBFUNC)', *The Journal of Nutrition* [Preprint]. Available at: <https://doi.org/10.1016/j.tjnut.2022.12.030>. ABSTRACT

Neurology

1. van Berkel, A.A., IJff, D.M. and Verkuyl, J.M. (2018) 'Cognitive benefits of the ketogenic diet in patients with epilepsy: A systematic overview', *Epilepsy & Behavior*, 87, pp. 69–77. Available at: <https://doi.org/10.1016/j.yebeh.2018.06.004>.
2. Wingo, B.C. *et al.* (2023) 'Feasibility and acceptability of time-restricted eating in a group of adults with multiple sclerosis', *Frontiers in Neurology*, 13, p. 1087126. Available at: <https://doi.org/10.3389/fneur.2022.1087126>.

3. Bosworth, A. *et al.* (2023) 'Case report: Ketogenic diet acutely improves cognitive function in patient with Down syndrome and Alzheimer's disease', *Frontiers in Psychiatry*, 13. Available at: <https://www.frontiersin.org/articles/10.3389/fpsy.2022.1085512>.
4. Reznik, Eugene, "A Review of a Ketogenic Diet In the Treatment of Autism Spectrum Disorder" (2024). Loma Linda University Electronic Theses, Dissertations & Projects. 1713. <https://scholarsrepository.llu.edu/etd/1713>
5. Souza, K.R. de *et al.* (2023) 'Influence of anti-obesity strategies on brain function in health and review: A review', *Neurochemistry International*, 163, p. 105468. Available at: <https://doi.org/10.1016/j.neuint.2022.105468>. ABSTRACT

Critical Care and Neurotrauma

1. Makievskaya, C.I. *et al.* (2023) 'Ketogenic Diet and Ketone Bodies against Ischemic Injury: Targets, Mechanisms, and Therapeutic Potential', *International Journal of Molecular Sciences*, 24(3), p. 2576. Available at: <https://doi.org/10.3390/ijms24032576>.
2. Gunst, J. *et al.* (2023) 'Toward nutrition improving outcome of critically ill patients: How to interpret recent feeding RCTs?', *Critical Care*, 27(1), p. 43. Available at: <https://doi.org/10.1186/s13054-023-04317-9>. (relevance related to discussion of 'suppression of fasting-induced recovery pathways')

Preclinical studies showing promise

1. Wu, Y. and Chen, X. (2023) 'Ketogenic dietary intervention as therapy for thrombocytopenia', *Cancer Pathogenesis and Therapy*, p. S2949713223000046. Available at: <https://doi.org/10.1016/j.cpt.2023.01.004>.
2. Soni, S. *et al.* (2022) 'Ketone therapy reduces cardiac inflammation and cardiac dysfunction in sepsis', *Journal of Molecular and Cellular Cardiology*, 173, pp. 1–2. Available at: <https://doi.org/10.1016/j.yjmcc.2022.08.007>.