

## Roundup - July 2024

New this month in therapeutic carbohydrate restriction and metabolic health.

### Metabolic Studies

1. Abdulghani, M.F. and Al-Fayyadh, S. (2024) 'The effect of a nurse-led low carbohydrate regimen on anthropometric and laboratory parameters of patients with metabolic syndrome: a quasi-experimental study', *Frontiers in Public Health*, 12, p. 1415916. Available at: <https://doi.org/10.3389/fpubh.2024.1415916>.
2. Cooper, I.D. *et al.* (2024) 'Ketosis Suppression and Ageing (KetoSAge) Part 2: The Effect of Suppressing Ketosis on Biomarkers Associated with Ageing, HOMA-IR, Leptin, Osteocalcin, and GLP-1, in Healthy Females', *Biomedicines*, 12(7), p. 1553. Available at: <https://doi.org/10.3390/biomedicines12071553>.
3. Ghasemi, P. *et al.* (2024) 'Impact of very low carbohydrate ketogenic diets on cardiovascular risk factors among patients with type 2 diabetes; GRADE-assessed systematic review and meta-analysis of clinical trials', *Nutrition & Metabolism*, 21(1), p. 50. Available at: <https://doi.org/10.1186/s12986-024-00824-w>.
4. Hanners, A. *et al.* (2024) 'A pilot study of Keto Prescribed+: A healthy thinking and eating educational program for African American women', *Journal of the American Association of Nurse Practitioners*, 36(7), pp. 377–384. Available at: <https://doi.org/10.1097/JXX.0000000000001019>.
5. Nicolosi, A.E. *et al.* (2024) 'P-641 A prospective observational case series on the effects of a very low-calorie ketogenic diet (VLCKD) in overweight and obese infertile women', *Human Reproduction*, 39(Supplement\_1), p. deae108.973. Available at: <https://doi.org/10.1093/humrep/deae108.973>.
6. Rahmel, T. *et al.* (2024) 'An open-label, randomized controlled trial to assess a ketogenic diet in critically ill patients with sepsis', *Science Translational Medicine*, 16(755), p. eadn9285. Available at: <https://doi.org/10.1126/scitranslmed.adn9285>.
7. Saslow, L.R. *et al.* (2024) 'Feasibility and acceptability of an online multicomponent very low-carbohydrate intervention in young adult women with obesity: a pilot study', *Pilot and Feasibility Studies*, 10(1), p. 102. Available at: <https://doi.org/10.1186/s40814-024-01525-0>.
8. Vargas-Molina, S. *et al.* (2024) 'Effects of the Ketogenic Diet on Strength Performance in Trained Men and Women: A Systematic Review and Meta-Analysis', *Nutrients*, 16(14), p. 2200. Available at: <https://doi.org/10.3390/nu16142200>.

### General Reviews

1. Abdelrahim, R.A. *et al.* (2024) 'Nutritional Ketosis as a Therapeutic Approach in Critical Illness: A Systematic Review', *Cureus* [Preprint]. Available at: <https://doi.org/10.7759/cureus.65455>.
2. Ahmad, Y., Seo, D.S. and Jang, Y. (2024) 'Metabolic Effects of Ketogenic Diets: Exploring Whole-Body Metabolism in Connection with Adipose Tissue and Other Metabolic Organs', *International Journal of Molecular Sciences*, 25(13), p. 7076. Available at: <https://doi.org/10.3390/ijms25137076>.

3. Barrea, L. *et al.* (2024) 'A New Nomenclature for the Very Low-Calorie Ketogenic Diet (VLCKD): Very Low-Energy Ketogenic Therapy (VLEKT). Ketodiets and Nutraceuticals Expert Panels: "KetoNut", Italian Society of Nutraceuticals (SINut) and the Italian Association of Dietetics and Clinical Nutrition (ADI)', *Current Nutrition Reports* [Preprint]. Available at: <https://doi.org/10.1007/s13668-024-00560-w>.
4. Gunst, J. *et al.* (2021) 'Role of ketones, ketogenic diets and intermittent fasting in ICU', *Current Opinion in Critical Care*, 27(4), p. 385. Available at: <https://doi.org/10.1097/MCC.0000000000000841>. PDF
5. Liao, L.P. *et al.* (2024) 'A Focus on Heart Failure Management through Diet and Nutrition: A Comprehensive Review', *Hearts*, 5(3), pp. 293–307. Available at: <https://doi.org/10.3390/hearts5030022>.
6. Pezzuoli, C., Biagini, G. and Magistrone, R. (2024) Ketogenic Interventions in Autosomal Dominant Polycystic Kidney Disease: A Comprehensive Review of Current Evidence. Available at: <https://doi.org/10.20944/preprints202407.0919.v1>. (preprint)
7. Ting, K.K.Y. (2024) 'John Yudkin's hypothesis: sugar is a major dietary culprit in the development of cardiovascular disease', *Frontiers in Nutrition*, 11, p. 1407108. Available at: <https://doi.org/10.3389/fnut.2024.1407108>.

## Neurology

1. Carrera-Juliá, S. *et al.* (2024) 'Ketogenic effect of coconut oil in ALS patients', *Frontiers in Nutrition*, 11. Available at: <https://doi.org/10.3389/fnut.2024.1429498>.
2. Feng, G. *et al.* (2024) 'β-hydroxybutyrate and ischemic stroke: roles and mechanisms', *Molecular Brain*, 17(1), p. 48. Available at: <https://doi.org/10.1186/s13041-024-01119-0>.
3. Nanda, M. *et al.* (2024) 'Ketogenic Diets: Answer to Life-Threatening Neurological Diseases', *Food and Humanity*, p. 100364. Available at: <https://doi.org/10.1016/j.foohum.2024.100364>.
4. Schweickart, A. *et al.* (2024) 'Serum and CSF metabolomics analysis shows Mediterranean Ketogenic Diet mitigates risk factors of Alzheimer's disease', *npj Metabolic Health and Disease*, 2(1), pp. 1–11. Available at: <https://doi.org/10.1038/s44324-024-00016-3>.
5. Shippy, D.C., Evered, A.H. and Ulland, T.K. (2024) 'Ketone body metabolism and the NLRP3 inflammasome in Alzheimer's disease', *Immunological Reviews*, n/a(n/a). Available at: <https://doi.org/10.1111/imr.13365>.

## Metabolic Psychiatry

1. Freyberg, Z. *et al.* (2024) 'Linking mitochondrial dysfunction, neurotransmitter, neural network abnormalities and mania: Elucidating neurobiological mechanisms of the therapeutic effect of the ketogenic diet in Bipolar Disorder', *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 0(0). Available at: <https://doi.org/10.1016/j.bpsc.2024.07.011>. ABSTRACT
2. Garner, S., Barkus, E. and Kraeuter, A.-K. (2024) 'Positive and negative schizotypy personality traits are lower in individuals on ketogenic diet in a non-clinical sample', *Schizophrenia Research*, 270, pp. 423–432. Available at: <https://doi.org/10.1016/j.schres.2024.07.010>.

### Case Studies and Preclinical studies

1. D'Adamo, C.R. *et al.* (2024) 'Reversal of Autism Symptoms among Dizygotic Twins through a Personalized Lifestyle and Environmental Modification Approach: A Case Report and Review of the Literature', *Journal of Personalized Medicine*, 14(6), p. 641. Available at: <https://doi.org/10.3390/jpm14060641>. (the [food intervention](#) shows similarities to a TCR approach – low in gluten, casein, glutamate, processed foods etc., and focus on whole foods)
2. Koutnik, A.P. *et al.* (2024) 'Efficacy and Safety of Long-term Ketogenic Diet Therapy in a Patient With Type 1 Diabetes', *JCEM Case Reports*, 2(7), p. luae102. Available at: <https://doi.org/10.1210/jcemcr/luae102>.
3. Redick, J.C. *et al.* (2024) 'Resolution of Persistent Chylothorax With a Ketogenic Diet: A Case Report', *Cureus*, 16. Available at: <https://doi.org/10.7759/cureus.64144>.
4. Tsang, E. *et al.* (2024) 'Ketogenic diet modifies ribosomal protein dysregulation in *KMT2D* Kabuki syndrome', *eBioMedicine*, 104, p. 105156. Available at: <https://doi.org/10.1016/j.ebiom.2024.105156>.
5. Wang, Q. *et al.* (2024) 'Histone  $\beta$ -hydroxybutyrylation is critical in reversal of sarcopenia', *Aging Cell*, n/a(n/a), p. e14284. Available at: <https://doi.org/10.1111/accel.14284>. (preclinical)