KEY REFERENCES FOR SECTIONS ONE AND TWO

Cohen, M.N. Health and the Rise of Civilization. 1989: Yale University Press.

Lindeberg, S., Food and western disease: health and nutrition from an evolutionary perspective. 2009: John Wiley & Sons.

Ioannidis, J.P., Why most published research findings are false. PLoS medicine, 2005. 2(8): p. e124.

Thompson, J.C., et al. Origins of the human predatory pattern: The transition to large-animal exploitation by early hominins. Current anthropology, 2019. 60(1): p. 1-23.

Goldacre, B. and R. Farley (2009). Bad science. Fourth Estate London.

Taubes, G., *The diet delusion* . 2008: Random House.

Ede, G. (2024). Change Your Diet, Change Your Mind: A Powerful Plan to Improve Mood, Overcome Anxiety, and Protect Memory for a Lifetime of Optimal Mental Health, Balance.

Feinman, R. D. 2019. Nutrition in crisis: flawed studies, misleading advice, and the real science of human metabolism, Chelsea Green Publishing.

Westman, E. C., Feinman, R. D., Mavropoulos, J. C., Vernon, M. C., Volek, J. S., Wortman, J. A., Yancy, W. S. & Phinney, S. D. 2007. Low-carbohydrate nutrition and metabolism. Am J Clin Nutr, 86, 276-84.

Roebroeks, W., L.C. Aiello, and W.R. Leonard, Guts and Brains: an integrative approach to the hominin record. 2007: Leiden University Press.

Acıpayam, C., et al., *Cerebral atrophy in 21 hypotonic infants with severe vitamin B12 deficiency.* Journal of paediatrics and child health, 2020. **56**(5): p. 751-756.

Lövblad, K.-O., et al., *Retardation of myelination due to dietary vitamin B 12 deficiency: cranial MRI findings.* Pediatric radiology, 1997. **27**(2): p. 155-158.

Ozyurek, H., et al., *Vitamin B12 deficiency as a treatable cause of severe brain atrophy.* Neurology Asia, 2021. **26**(1).

Buxton, J., The Great Plant-Based Con: Why eating a plants-only diet won't improve your health or save the planet. 2022: Piatkus.

Rodgers, D. and R. Wolf, *Sacred cow: The case for (better) meat: Why well-raised meat is good for you and good for the planet* . 2020: BenBella Books.

Molotoks, A., et al., *Global projections of future cropland expansion to 2050 and direct impacts on biodiversity and carbon storage.* Global Change Biology, 2018. **24**(12): p. 5895-5908.

Matthew Evans, *On Eating Meat: The truth about its production and the ethics of eating it.* 2019: Murdoch Books.

INTRODUCTION

Page	Para	
1	2	Kiely, M.E. *Risks and benefits of vegan and vegetarian diets in children.* Proceedings of the Nutrition Society **80**(2), p. 159-164, 2021.
1	4	Acıpayam, C., et al., *Cerebral atrophy in 21 hypotonic infants with severe vitamin B12 deficiency.* Journal of paediatrics and child health, 2020. **56**(5): p. 751-756.
1	4	Lövblad, K.-O., et al., *Retardation of myelination due to dietary vitamin B 12 deficiency: cranial MRI findings.* Pediatric radiology, 1997. **27**(2): p. 155-158.

1 4 Ozyurek, H., et al., *Vitamin B12 deficiency as a treatable cause of severe brain atrophy.* Neurology Asia, 2021. **26**(1).

1 4 Fanjiang, G. and Kleinman, R.E. *Nutrition and Performance in Children.* Current Opinion in Clinical Nutrition & Metabolic Care **10**, no. 3 (2007): 342-47.

1 4 Vogiatzoglou, A, et al. *Vitamin B12 Status and Rate of Brain Volume Loss in Community-Dwelling Elderly.* Neurology **71**, no. 11 (2008): 826-32.

3 1 Ioannidis, J.P. *Why most published research findings are false.* PLOS medicine, 2005. **2**(8): p. e124.

3 2 Antvorskov, J.C., et al. *Association between maternal gluten intake and type 1 diabetes in offspring: national prospective cohort study in Denmark.* BMJ, 2018.

3 2 Gimeno, L., et al. *Cohort Differences in Physical Health and Disability in the United States and Europe.* The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences (2024): gbae113.

3 4 Taubes, G., *The diet delusion* . 2008: Random House.

3 4 Ludwig, D.S., et al., *Dietary fat: From foe to friend?* Science, 2018. **362**(6416): p. 764-770.

3 4 Feinman, R.D., *Nutrition in crisis: flawed studies, misleading advice, and the real science of human metabolism* . 2019: Chelsea Green Publishing.

3 4 Gunnars, K., *Saturated fat: Good or bad?* 2014, June.

3 4 Westman, E.C., et al., *Low-carbohydrate nutrition and metabolism.* Am J Clin Nutr, 2007. **86**(2): p. 276-84.

3 4 Westman, E.C., *Is dietary carbohydrate essential for human nutrition?* The American Journal of Clinical Nutrition, 2002. **75**(5): p. 951-953.

3 4 Astrup, A., et al., *Dietary saturated fats and health: are the US guidelines evidence-based?* Nutrients, 2021. **13**(10): p. 3305.

3 4 Volek, J.S. and R.D. Feinman, *Carbohydrate restriction improves the features of Metabolic Syndrome. Metabolic Syndrome may be defined by the response to carbohydrate restriction.* Nutr Metab (Lond), 2005. **2**: p. 31.

3 4 Volek, J.S., et al., *Carbohydrate restriction has a more favorable impact on the metabolic syndrome than a low fat diet.* Lipids, 2009. **44**: p. 297-309.

3 4 Astrup, A., et al., *Saturated fats and health: a reassessment and proposal for food-based recommendations: JACC state-of-the-art review.* Journal of the American College of Cardiology, 2020. **76**(7): p. 844-857.

4 2 Guardian. Third of Earth's soil is acutely degraded due to agriculture. 2017; Available from: https://www.theguardian.com/environment/2017/sep/12/third-of-earths-soil-acutely-degraded-due-to-agriculture-study.

4 4 Fischer, B. and Lamey, A. *Field deaths in plant agriculture.* Journal of Agricultural and Environmental Ethics, 2018. **31**(4): p. 409-428.

4 4 Matthew Evans, *On Eating Meat: The truth about its production and the ethics of eating it* 2019: Murdoch Books.

4 4 Tree, I. *Wilding: The Return of Nature to a British Farm* . 2018: Pan Macmillan.

4 6 Acıpayam, C., et al. *Cerebral atrophy in 21 hypotonic infants with severe vitamin B12 deficiency.* Journal of Paediatrics and Child Health, 2020. **56**(5): p. 751-756.

4 6 Cohen, M.N. *Health and the Rise of Civilization* . 1989: Yale University Press.

4	6	Mummert, A., et al. *Stature and Robusticity during the Agricultural Transition: Evidence from the Bioarchaeological Record.* Economics & Human Biology **9**, no. 3 (2011): 284-301.
4	6	Leonard, W.R., et al., *Metabolic correlates of hominid brain evolution.* Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology, 2003. **136**(1): p. 5-15.
4	6	Leonard, W.R., *Human Nutritional Evolution* , in *Human Biology* .
4	6	Roebroeks, W., L.C. Aiello, and W.R. Leonard, *Guts and Brains: an integrative approach to the hominin record* . 2007: Leiden University Press.
4	6	Leonard, W.R. and M.L. Robertson, *Evolutionary perspectives on human nutrition: the influence of brain and body size on diet and metabolism.* American Journal of Human Biology, 1994. **6**(1): p. 77-88.
4	6	Leonard, W.R., J.J. Snodgrass, and M.L. Robertson, *Effects of brain evolution on human nutrition and metabolism.* Annu. Rev. Nutr., 2007. **27**: p. 311-327.
10	1	Hamazaki, T., et al., *Towards a paradigm shift in cholesterol treatment.* Ann. Nutr. Metab., 2015. **66**: p. 1-116.
10	1	Okuyama, H., et al., *Statins stimulate atherosclerosis and heart failure: pharmacological mechanisms.* Expert review of clinical pharmacology, 2015. **8**(2): p. 189-199.
10	1	Hashimoto, Y. and H. Okuyama, *Statins Cause Lifestyle-Related Diseases-Biochemical Mechanism. Endocrinol Diabetes Res 3: 2.* of, 2017. **10**: p. 2.
10	1	Okuyama, H., et al., *A critical review of the consensus statement from the European atherosclerosis society consensus panel 2017.* Pharmacology, 2018. **101**(3-4): p. 184-218.
10	1	Myasoedova, V.A., et al., *High-Intensity Statins Promote PCSK9 Secretion and Aortic Valve Calcification in Patients with Severe Aortic Stenosis: In vitro and Clinical Evidence.* Pharmacological Research, 2025: p. 107737.
10	3	Noakes, T., et al., *Ketogenic: The Science of Therapeutic Carbohydrate Restriction in Human Health* . 2023: Elsevier.

Page Para **CHAPTER 1:** HOW I ARRIVED AT THE SAPIENS DIET

11	2	Georgieff, M.K. et al. *Nuritional influences on brain development.* 2018. Acta Paediatrica, **107**(8), p. 1310-1321.
11	2	Morris, S.S., B. Cogill, and R. Uauy, *Effective international action against undernutrition: why has it proven so difficult and what can be done to accelerate progress?* The Lancet, 2008. **371**(9612): p. 608-621.
11	2	Cusick, S.E. and M.K. Georgieff, *The role of nutrition in brain development: the golden opportunity of the "first 1000 days".* The Journal of pediatrics, 2016. **175**: p. 16.
11	4	Lobo, I. (2008). *Environmental influences on gene expression.* Nature Education **1**(1): 39.
12	3	Bygren, L. O., G. Kaati and S. Edvinsson (2001). *Longevity determined by paternal ancestors' nutrition during their slow growth period.* Acta Biotheoretica **49**: 53-59.

14 4 Misitzis, A., P. R. Cunha and G. Kroumpouzos (2019). *Skin disease related to metabolic syndrome in women.* International journal of women's dermatology **5**(4): 205-212.

15 4 Lindeberg, S., P. Nilsson-Ehle, A. Terent, B. Vessby and B. Schersten (1994). *Cardiovascular risk factors in a Melanesian population apparently free from stroke and ischaemic heart disease: the Kitava study.* Journal of Internal Medicine **236**(3): 331-340.

15 4 Lindeberg, S., *Food and western disease: health and nutrition from an evolutionary perspective* . 2009: John Wiley & Sons.

17 6 Murakami, M. and P. Tognini (2022). *Molecular Mechanisms Underlying the Bioactive Properties of a Ketogenic Diet.* Nutrients **14**(4): 782.

18 2 Brietzke, E., R. B. Mansur, M. Subramaniapillai, V. Balanza-Martinez, M. Vinberg, A. Gonzalez-Pinto, J. D. Rosenblat, R. Ho and R. S. McIntyre (2018). *Ketogenic diet as a metabolic therapy for mood disorders: Evidence and developments.* Neurosci Biobehav Rev **94**: 11-16.(Peterson, 2022)

18 2 Broom, G. M., I. C. Shaw and J. J. Rucklidge (2019). *The ketogenic diet as a potential treatment and prevention strategy for Alzheimer's disease.* Nutrition **60**: 118-121.

18 2 Renck, A., et al. *Effect of significant weight loss by very low calorie ketogenic diet on male obesity secondary hypogonadism and sexual function* . in *Endocrine Abstracts* . 2020. Bioscientifica.

18 2 Grigolon, R. B., F. Gerchman, A. C. Schöffel, E. R. Hawken, H. Gill, G. H. Vazquez, R. B. Kashiwaya, Y., T. Takeshima, N. Mori, K. Nakashima, K. Clarke and R. L. Veech (2000). *d-β-Hydroxybutyrate protects neurons in models of Alzheimer's and Parkinson's disease.* Proceedings of the National Academy of Sciences **97**(10): 5440-5444.

18 2 McDonald, T. J. W. and M. C. Cervenka (2018). *The Expanding Role of Ketogenic Diets in Adult Neurological Disorders.* Brain Sci **8**(8).

19 2 Tóth, C. and Z. Clemens, *Type 1 diabetes mellitus successfully managed with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2014. **5**(10): p. 699-703.

19 2 Clemens, Z. and C. Tóth, *Paleolithic ketogenic diet (PKD) in chronic diseases: Clinical and research data.* Journal of Evolution and Health, 2018. **3**(2): p. 6.

19 2 Clemens, Z., A. Dabóczi, and C. Tóth, *Paleolithic ketogenic diet (PKD) as a stand-alone therapy in cancer: Case studies.* Therapy, 2016. **1**: p. 4.

19 2 Clemens, Z., A. Kelemen, and C. Tóth, *NREM-sleep associated epileptiform discharges disappeared following a shift toward the paleolithic ketogenic diet in a child with extensive cortical malformation.* Am J Med Case Rep, 2015. **3**(7): p. 212-5.

19 2 Tóth, C., et al., Crohn's disease successfully treated with the paleolithic ketogenic diet. Int. J. Case Rep. Images, 2016. 7: p. 570-578.

19 2 Clemens, Z., et al., *Childhood absence epilepsy successfully treated with the paleolithic ketogenic diet.* Neurology and therapy, 2013. **2**(1-2): p. 71-76.

21 1 Peterson, M. 2022. Oxford Union Beyond Meat Debate [Online]. Available: https://www.youtube.com/watch?v=6ai1xpi8bW0.

21 2 Ede, G. (2024). *Change Your Diet, Change Your Mind: A Powerful Plan to Improve Mood, Overcome Anxiety, and Protect Memory for a Lifetime of Optimal Mental Health* , Balance.

Further references

Aparecida Silveira, E., Vaseghi, G., de Carvalho Santos, A. S., Kliemann, N., Masoudkabir, F., Noll, M., Mohammadifard, N., Sarrafzadegan, N. & de Oliveira, C. 2020. *Visceral obesity and its shared role in cancer and cardiovascular disease: A scoping review of the pathophysiology and pharmacological treatments.* International Journal of Molecular Sciences, **21,** 9042.

Bough, K. J. & Rho, J. M. 2007. *Anticonvulsant mechanisms of the ketogenic diet.* Epilepsia, **48,** 43-58.

Clemens, Z., Kelemen, A., Fogarasi, A. & Tóth, C. 2013. *Childhood absence epilepsy successfully treated with the paleolithic ketogenic diet.* Neurology and Therapy, **2,** 71-76.

De Souza, R. J., Mente, A., Maroleanu, A., Cozma, A. I., Ha, V., Kishibe, T., Uleryk, E., Budylowski, P., Schünemann, H. & Beyene, J. 2015. *Intake of saturated and trans unsaturated fatty acids and risk of all cause mortality, cardiovascular disease, and type 2 diabetes: systematic review and meta-analysis of observational studies.* BMJ, 351.

Diamond, D. M., Bikman, B. T. & Mason, P. *Statin therapy is not warranted for a person with high LDL-cholesterol on a low-carbohydrate diet* . Current Opinion in Endocrinology, Diabetes and Obesity**, 10.**1097.

Dror, D. K. & Allen, L. H. 2011. *The importance of milk and other animal-source foods for children in low-income countries.* Food and Nutrition Bulletin, **32,** 227-243.

Feinman, R. D. 2019. *Nutrition in crisis: flawed studies, misleading advice, and the real science of human metabolism* , Chelsea Green Publishing.

Feinman, R. D., Pogozelski, W. K., Astrup, A., Bernstein, R. K., Fine, E. J., Westman, E. C., Accurso, A., Frassetto, L., Gower, B. A. & McFarlane, S. I. 2015. *Dietary carbohydrate restriction as the first approach in diabetes management: critical review and evidence base.* Nutrition, **31,** 1-13.

Fine, E. J. & Feinman, R. D. 2004. *Thermodynamics of weight loss diets.* Nutrition & Metabolism, **1,** 15-15.

Forsythe, C. E., Phinney, S. D., Fernandez, M. L., Quann, E. E., Wood, R. J., Bibus, D. M., Kraemer, W. J., Feinman, R. D. & Volek, J. S. 2008. *Comparison of low fat and low carbohydrate diets on circulating fatty acid composition and markers of inflammation* . Lipids, **43,** 65-77.

Groleau, V., Schall, J. I., Stallings, V. A. & Bergqvist, C. A. 2014. *Long-term impact of the ketogenic diet on growth and resting energy expenditure in children with intractable epilepsy.* Dev Med Child Neurol, **56,** 898-904.

Hall, E., Jönsson, J., Ofori, J. K., Volkov, P., Perfilyev, A., Dekker Nitert, M., Eliasson, L., Ling, C. & Bacos, K. 2019. *Glucolipotoxicity alters insulin secretion via epigenetic changes in human islets.* Diabetes, **68,** 1965-1974.

Hayward, R. A. & Krumholz, H. M. 2012. *Three reasons to abandon low-density lipoprotein targets: an open letter to the Adult Treatment Panel IV of the National Institutes of Health.* Am Heart Assoc.

Headey, D., Hirvonen, K. & Hoddinott, J. 2018. *Animal sourced foods and child stunting* . Wiley Online Library.

Landecker, H. 2011. *Food as exposure: Nutritional epigenetics and the new metabolism.* BioSocieties, **6,** 167-194.

Lefevre, F. & Aronson, N. 2000. *Ketogenic diet for the treatment of refractory epilepsy in children: a systematic review of efficacy* . Pediatrics, **105,** e46-e46.

Ling, Charlotte, and Tina Rönn. *Epigenetics in Human Obesity and Type 2 Diabetes.* Cell Metabolism **29**, no. 5 (2019): 1028-44.

Mansur, R. S. McIntyre and E. Brietzke (2020). *Mental, emotional, and behavioral effects of ketogenic diet for non-epileptic neuropsychiatric conditions.* Progress in Neuro-Psychopharmacology and Biological Psychiatry **102**: 109947.

Neal, E. G., Chaffe, H., Schwartz, R. H., Lawson, M. S., Edwards, N., Fitzsimmons, G., Whitney, A. & Cross, J. H. 2008. *The ketogenic diet for the treatment of childhood epilepsy: a randomised controlled trial.* The Lancet Neurology, **7,** 500-506.

Osborne-Majnik, A., Fu, Q. & Lane, R. H. 2013. *Epigenetic mechanisms in fetal origins of health and disease.* Clinical Obstetrics and Gynecology, **56,** 622.

Paudyal, N., Chitekwe, S., Rijal, S., Parajuli, K., Pandav, C., Maharjan, M., Houston, R. & Gorstein, J. 2020. *The evolution, progress, and future direction of Nepal's universal salt iodization program.* Maternal and Child Nutrition**,** e12945.

Turusheva, A., Vaes, B., Degryse, J.-M. & Frolova, E. 2020. *Low cholesterol levels are associated with a high mortality risk in older adults without statins therapy: An externally validated cohort study.* Archives of Gerontology and Geriatrics, **90,** 104180.

Vining, E. P. 2008. *Long-term health consequences of epilepsy diet treatments.* Epilepsia, **49,** 27-29.

Volek, J. S. & Feinman, R. D. 2005. *Carbohydrate restriction improves the features of Metabolic Syndrome. Metabolic Syndrome may be defined by the response to carbohydrate restriction.* Nutr Metab (Lond), **2,** 31.

Westman, E. C., Feinman, R. D., Mavropoulos, J. C., Vernon, M. C., Volek, J. S., Wortman, J. A., Yancy, W. S. & Phinney, S. D. 2007. *Low-carbohydrate nutrition and metabolism* . Am J Clin Nutr, **86,** 276-84.

CHAPTER 2: THE MAGIC OF MEAT

Page Para

24 2 Thompson, J.C., et al. *Origins of the human predatory pattern: The transition to large-*
25 3 *animal exploitation by early hominins.* Current anthropology, 2019. **60**(1): p. 1-23.
27 5

25 3 Van Ginneken, V., et al. *Hunter-prey correlation between migration routes of African buffaloes and early hominids: Evidence for the "Out of Africa" hypothesis.* Integr Mol Med, 2017. **4**(3): p. 1-5.

26 2 Ungar, P.S., *Evolution of the human diet: the known, the unknown, and the unknowable* .
29 4 2006: Oxford University Press.

27 4 Aiello, L.C. and P. Wheeler, *The expensive-tissue hypothesis: the brain and the digestive system in human and primate evolution.* Current anthropology, 1995. **36**(2): p. 199-221.

28 2 Roe, M., et al. *McCance and Widdowson's The Composition of Foods Seventh Summary Edition and updated Composition of Foods Integrated Dataset.* Nutrition bulletin, 2015. **40**(1): p. 36-39.

28 5 Treves, A. and L. Naughton-Treves, *Risk and opportunity for humans coexisting with large carnivores.* Journal of human evolution, 1999. **36**(3): p. 275-282.

28 5 Watts, D.P. Journal of Human Evolution, 2008. **54**(1): p. 125-133.

28 5 Zink, K.D. and D.E. Lieberman, *Impact of meat and Lower Palaeolithic food processing*
30 1 *techniques on chewing in humans.* Nature, 2016. **531**(7595): p. 500.

29 2 Smith, A.R., et al. *The significance of cooking for early hominin scavenging.* Journal of
34 1 human evolution, 2015. **84**: p. 62-70.

29 3 de la Torre, I. and S. Hirata, *Percussive technology in human evolution: an introduction to a comparative approach in fossil and living primates* . 2015, The Royal Society.

30 1 Lieberman, D., *The evolution of the human head* . 2011: Harvard University Press.
32 2
34 1

30 2 Assaf, E., et al. *Shaped stone balls were used for bone marrow extraction at Lower Paleolithic Qesem Cave, Israel.* PLOS One, 2020. **15**(4): p. e0230972.

30 4 Blumenschine, R.J., *Hominid carnivory and foraging strategies, and the socio-economic function of early archaeological sites.* Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences, 1991. **334**(1270): p. 211-221.

30 4 Cordain, L., B.A. Watkins, and N.J. Mann, *Fatty acid composition and energy density of foods available to African hominids'.* 2001.

30 4 Dart, R.A., *The predatory transition from ape to man* . Vol. **1**. 1953, International Anthropological and Linguistic Review: Brill.

31 2 Gürbüz, R.B. and S.J. Lycett, *Did the use of bone flakes precede the use of knapped stone flakes in hominin meat processing and could this be detectable archaeologically?* Journal of Anthropological Archaeology, 2021. **62**: p. 101305.

31 4 Sterelny, K., *Constructing the cooperative niche* , in *Entangled Life* . 2014, Springer. p. 261-279.

31 5 Cunnane, S. and K. Stewart, *Human brain evolution: the influence of freshwater and marine food resources* . 2010: John Wiley & Sons.

32 1 Roebroeks , W., L.C. Aiello, and W.R. Leonard, *Guts and Brains: an integrative*
36 4 *approach to the hominin record* . 2007: Leiden University Press.

32 2 Everts, S., *The Joy of Sweat: The Strange Science of Perspiration* . 2021: WW Norton & Company.

33 1 Akbaraly, T., et al. *Association of long-term diet quality with hippocampal volume: longitudinal cohort study.* The American journal of medicine, 2018. **131**(11): p. 1372-1381. e4.

33 1 Antón, S.C., R. Potts, and L.C. Aiello, *Evolution of early Homo: an integrated biological perspective.* Science, 2014. **345**(6192): p. 1236828.

33 1 Ben-Dor, M. and R. Barkai, *The importance of large prey animals during the*
38 1 *Pleistocene and the implications of their extinction on the use of dietary ethnographic analogies.* Journal of Anthropological Archaeology, 2020. **59**: p. 101192.

Ben-Dor, M., et al. *Man the fat hunter: the demise of Homo erectus and the emergence of a new hominin lineage in the Middle Pleistocene (ca. 400 kyr) Levant.* PLOS One, 2011. **6**(12): p. e28689.

Henry, A.G., A.S. Brooks, and D.R. Piperno, *Plant foods and the dietary ecology of Neanderthals and early modern humans.* Journal of human evolution, 2014. **69**: p. 44-54.

Murphy, S.P. and L.H. Allen, *Nutritional importance of animal source foods.* The Journal of nutrition, 2003. **133**(11): p. 3932S-3935S.

Leonard, W.R. and M.L. Robertson, *Evolutionary perspectives on human nutrition: the influence of brain and body size on diet and metabolism.* American Journal of Human Biology, 1994. **6**(1): p. 77-88.

Shimelmitz, R., et al. *'Fire at will': the emergence of habitual fire use 350,000 years ago.* J Hum Evol, 2014. **77**: p. 196-203.

Wrangham, R.W., et al. *The raw and the stolen: cooking and the ecology of human origins.* Current anthropology, 1999. **40**(5): p. 567-594.

Leonard, William R, J Josh Snodgrass, and Marcia L Robertson. *Effects of Brain Evolution on Human Nutrition and Metabolism.* Annu. Rev. Nutr. **27** (2007): 311-27.

Cunnane, S.C., L.S. Harbige, and M.A. Crawford, *The importance of energy and nutrient supply in human brain evolution.* Nutrition and Health, 1993. **9**(3): p. 219-235.

Drucker, D.G., et al. *Stable isotope evidence of human diet in Mediterranean context during the Last Glacial Maximum.* Journal of Human Evolution, 2021. **154**: p. 102967.

Klein, R.G., et al. *The Ysterfontein 1 Middle Stone Age site, South Africa, and early human exploitation of coastal resources.* Proceedings of the National Academy of Sciences, 2004. **101**(16): p. 5708-5715.

Langdon, J.H., *Has an aquatic diet been necessary for hominin brain evolution and functional development?* British Journal of Nutrition, 2006. **96**(1): p. 7-17.

Richards, M.P. and E. Trinkaus , *Isotopic evidence for the diets of European Neanderthals and early modern humans.* Proceedings of the National Academy of Sciences, 2009. **106**(38): p. 16034-16039.

Noli, D. and G. Avery, *Protein poisoning and coastal subsistence.* Journal of Archaeological Science, 1988. **15**(4): p. 395-401.

Eisert, R., *Hypercarnivory and the brain: protein requirements of cats reconsidered.* Journal of Comparative Physiology B, 2011. **181**: p. 1-17.

Leonard, William R, Marcia L Robertson, J Josh Snodgrass, and Christopher W Kuzawa. *Metabolic Correlates of Hominid Brain Evolution.* Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology **136**, no. 1 (2003): 5-15.

Ben-Dor, Miki and Ran Barkai. *The Importance of Large Prey Animals during the Pleistocene and the Implications of Their Extinction on the Use of Dietary Ethnographic Analogies.* Journal of Anthropological Archaeology **59** (2020): 101192.

40 1 Kuhn, S. and Stiner, M. *What's a mother to do? The division of labor among Neandertals and Modern Humans in Eurasia.* Current Anthropology, 2006, **47**(6), p. 953-981

40 2 Agam, A. and R. Barkai (2018). *Elephant and mammoth hunting during the Paleolithic:*
42 2 *a review of the relevant archaeological, ethnographic and ethno-historical records.* Quaternary **1**(1): 3.

41 2 Andel, van, T. H., ed. (2003). *Neanderthals and modern humans in the European landscape during the last glaciation.* Cambridge: MacDonald Institute for Archaeological Research

41 2 Churchill, S.E. *Energetic Competition between Neandertals and Anatomically Modern Humans.* PaleoAnthropology **96** (2009): 116.

41 3 Dobson, J. E. *The iodine factor in health and evolution.* Geographical Review, 1998, **88**(1), p. 3-28.

41 3 Fordyce, F. *Databse of the iodine content of food and diets populated with data from published literature.* 2003

Further references

Agam, A. and R. Barkai (2016). *Not the brain alone: The nutritional potential of elephant heads in Paleolithic sites.* Quaternary International **406**: 218-226.

Anwar, Najma, Katharine MacDonald, Wil Roebroeks, and Alexander Verpoorte. *The Evolution of the Human Niche: Integrating Models with the Fossil Record.* Guts and brains: An integrative approach to the hominin record (2007): 235-70.

Bastir, Markus, Antonio Rosas, Philipp Gunz, Angel Peña-Melian, Giorgio Manzi, Katerina Harvati, Robert Kruszynski, Chris Stringer, and Jean-Jacques Hublin. *Evolution of the Base of the Brain in Highly Encephalized Human Species.* Nature Communications **2**, no. 1 (2011): 588.

Ben-Dor, Miki and Ran Barkai. *Prey Size Decline as a Unifying Ecological Selecting Agent in Pleistocene Human Evolution.* Quaternary **4**, no. 1 (2021): 7.

Ben-Dor, Miki and Ran Barkai. *Supersize Does Matter: The Importance of Large Prey in Palaeolithic Subsistence and a Method for Measuring Its Significance in Zooarchaeological Assemblages.* (2021).

Ben-Dor, Miki, Raphael Sirtoli, and Ran Barkai. *The Evolution of the Human Trophic Level during the Pleistocene.* American Journal of Physical Anthropology **175** (2021): 27-56.

Binnie, Mary Ann, Karine Barlow, Valerie Johnson, and Carol Harrison. *Red Meats: Time for a Paradigm Shift in Dietary Advice.* Meat Science **98**, no. 3 (2014): 445-51.

Blasco, Ruth, Jordi Rosell, M Arilla, Antoni Margalida, Daniel Villalba, Avi Gopher, and Ran Barkai. *Bone Marrow Storage and Delayed Consumption at Middle Pleistocene Qesem Cave, Israel (420 to 200 Ka).* Science advances 5, no. 10 (2019): eaav9822.

Blumenschine, Robert J. *Percussion Marks, Tooth Marks, and Experimental Determinations of the Timing of Hominid and Carnivore Access to Long Bones at Flk Zinjanthropus, Olduvai Gorge, Tanzania.* Journal of Human Evolution **29**, no. 1 (1995): 21-51.

Bonithon-Kopp, Claire, Ole Kronborg, Attilio Giacosa, Ulrich Räth, Jean Faivre, and European Cancer Prevention Organisation Study Group. *Calcium and Fibre Supplementation in Prevention of Colorectal Adenoma Recurrence: A Randomised Intervention Trial.* The Lancet **356**, no. 9238 (2000): 1300-06.

Burini, Roberto Carlos and William R Leonard. *The Evolutionary Roles of Nutrition Selection and Dietary Quality in the Human Brain Size and Encephalization.* Nutrire **43**, no. 1 (2018): 19.

Cornélio, Alianda M, Ruben E de Bittencourt-Navarrete, Ricardo de Bittencourt Brum, Claudio M Queiroz, and Marcos R Costa. *Human Brain Expansion during Evolution Is Independent of Fire Control and Cooking.* Frontiers in Neuroscience **10** (2016): 167.

Cunnane, Stephen C and Michael A Crawford. *Energetic and Nutritional Constraints on Infant Brain Development: Implications for Brain Expansion during Human Evolution.* Journal of Human Evolution **77** (2014): 88-98.

Cunnane, Stephen C and Michael A Crawford. *Survival of the Fattest: Fat Babies Were the Key to Evolution of the Large Human Brain.* Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology **136**, no. 1 (2003): 17-26.

Cunnane, Stephen C, Laurence S Harbige, and Michael A Crawford. *The Importance of Energy and Nutrient Supply in Human Brain Evolution.* Nutrition and Health **9**, no. 3 (1993): 219-35.

Cunnane, Stephen C. *Survival of the Fattest: The Key to Human Brain Evolution.* World Scientific, 2005.

Diggs, Kerry Brock and George. *The Hunter-Gatherer Within: Health and the Natural Human Diet.* America: Botanical Research Institute of Texas Press, 2013.

Dominguez-Rodrigo, Manuel and Travis Rayne Pickering. *The Meat of the Matter: An Evolutionary Perspective on Human Carnivory.* Azania: Archaeological Research in Africa **52**, no. 1 (2017): 4-32.

Domínguez-Rodrigo, Manuel, Enrique Baquedano, Elia Organista, Lucía Cobo-Sánchez, Audax Mabulla, Vivek Maskara, Agness Gidna, Marcos Pizarro-Monzo, Julia Aramendi, Ana Belén Galán, Gabriel Cifuentes-Alcobendas, Marina Vegara-Riquelme, Blanca Jiménez-García, Natalia Abellán, Rebeca Barba, David Uribelarrea, David Martín-Perea, Fernando Diez-Martin, José Manuel Maíllo-Fernández, Antonio Rodríguez-Hidalgo, Lloyd Courtenay, Rocío Mora, Miguel Angel Maté-González, and Diego González-Aguilera. Early Pleistocene Faunivorous Hominins Were Not Kleptoparasitic, and This Impacted the Evolution of Human Anatomy and Socio-Ecology. Scientific reports 11, no. 1 (2021/08/09 2021): 16135. http://dx.doi.org/10.1038/s41598-021-94783-4.

El Zaatari, Sireen, Frederick E Grine, Peter S Ungar, and Jean-Jacques Hublin. *Neandertal Versus Modern Human Dietary Responses to Climatic Fluctuations.* PLOS One **11**, no. 4 (2016): e0153277.

Elia, M. *Metabolism and Nutrition of the Gastrointestinal Tract.* In Recent Developments in Nutrition, 318-48: Springer, 1996.

Faurby, Søren, Daniele Silvestro, Lars Werdelin, and Alexandre Antonelli. *Brain Expansion in Early Hominins Predicts Carnivore Extinctions in East Africa.* Ecology Letters **23**, no. 3 (2020): 537-44

Ferraro, Joseph V, Thomas W Plummer, Briana L Pobiner, James S Oliver, Laura C Bishop, David R Braun, Peter W Ditchfield, John W Seaman III, Katie M Binetti, and John W Seaman Jr. *Earliest Archaeological Evidence of Persistent Hominin Carnivory.* PLOS One **8**, no. 4 (2013): e62174.

Geiker, Nina Rica Wium, Hanne Christine Bertram, Heddie Mejborn, Lars O Dragsted, Lars Kristensen, Jorge R Carrascal, Susanne Bügel, and Arne Astrup. *Meat and Human Health—Current Knowledge and Research Gaps.* Foods **10**, no. 7 (2021): 1556.

Hanson, Kari. Fatness at Birth. Center for Academic Research and Training in Anthropogeny. Last modified 2017. Accessed. https://carta.anthropogeny.org/moca/topics/fatness-birth.

Henneberg, M and D Olney. *Curse of Carbohydrate: How the Rise of Agriculturalism Led to the Demise of Homo.* (PDF).

Henneberg, M, V Sarafis, and K Mathers. *Human Adaptations to Meat Eating.* Human Evolution **13**, no. 3-4 (1998): 229-34.

Henneberg, Maciej. *Decrease of Human Skull Size in the Holocene.* Human biology (1988): 395-405.

Innis, S. M. Dietary Omega 3 Fatty Acids and the Developing Brain. Brain Res 1237 (Oct 27 2008): 35-43. http://dx.doi.org/10.1016/j.brainres.2008.08.078.

Karakostis, Fotios Alexandros, Daniel Haeufle, Ioanna Anastopoulou, Konstantinos Moraitis, Gerhard Hotz, Vangelis Tourloukis, and Katerina Harvati. *Biomechanics of the Human Thumb and the Evolution of Dexterity.* Current Biology **31**, no. 6 (2021): 1317-25. e8.

Kochiyama, Takanori, Naomichi Ogihara, Hiroki C Tanabe, Osamu Kondo, Hideki Amano, Kunihiro Hasegawa, Hiromasa Suzuki, Marcia S Ponce de León, Christoph PE Zollikofer, and Markus Bastir. *Reconstructing the Neanderthal Brain Using Computational Anatomy.* Scientific Reports **8**, no. 1 (2018): 6296.

La Bonnardière, Claude, Bernard Bonaiti, David Abrial, Patrick Gasqui, Didier Calavas, Christian Ducrot, and Jacques Barnouin. *Milk Yield, Age at First Calving, and the Risk of Bse: An Analysis at the Farm Level in France.* Preventive Veterinary Medicine **78**, no. 1 (2007): 67-78.

Lacruz, Rodrigo S, Chris B Stringer, William H Kimbel, Bernard Wood, Katerina Harvati, Paul O'Higgins, Timothy G Bromage, and Juan-Luis Arsuaga. *The Evolutionary History of the Human Face.* Nature Ecology and Evolution **3**, no. 5 (2019): 726-36.

Lee-Thorp, Julia A, Nikolaas J van der Merwe, and CK Brain. *Diet of Australopithecus Robustus at Swartkrans from Stable Carbon Isotopic Analysis.* Journal of Human Evolution **27**, no. 4 (1994): 361-72.

Leonard, W.R., et al. *Metabolic correlates of hominid brain evolution.* Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology, 2003. **136**(1): p. 5-15.

Leonard, W.R., J.J. Snodgrass, and M.L. Robertson, *Effects of brain evolution on human nutrition and metabolism.* Annu. Rev. Nutr., 2007. **27**: p. 311-327.

Leonard, William R and Marcia L Robertson. *Evolutionary Perspectives on Human Nutrition: The Influence of Brain and Body Size on Diet and Metabolism.* American Journal of Human Biology **6**, no. 1 (1994): 77-88.

Leonard, William R. *Human Nutritional Evolution.* In Human Biology.

Leroy, Frédéric and Adele H Hite. *The Place of Meat in Dietary Policy: An Exploration of the Animal/Plant Divide.* Meat and Muscle Biology **4**, no. 2 (2020).

Lippi, Giuseppe, Camilla Mattiuzzi, and Fabian Sanchis-Gomar. *Red Meat Consumption and Ischemic Heart Disease. A Systematic Literature Review.* Meat Science **108** (2015): 32-36.

Majou, Didier. *Evolution of the Human Brain: The Key Roles of Dha (Omega-3 Fatty Acid) and Δ6-Desaturase Gene.* OCL (2018).

Mays, Simon. *The Archaeology of Human Bones.* Routledge, 2021.

McNeill, Shalene and Mary E Van Elswyk. *Red Meat in Global Nutrition.* Meat Science **92**, no. 3 (2012): 166-73.

McNeill, Shalene H. *Inclusion of Red Meat in Healthful Dietary Patterns.* Meat Science **98**, no. 3 (2014): 452-60.

McPherron, Shannon P, Zeresenay Alemseged, Curtis W Marean, Jonathan G Wynn, Denné Reed, Denis Geraads, René Bobe, and Hamdallah A Béarat. *Evidence for Stone-Tool-Assisted Consumption of Animal Tissues before 3.39 Million Years Ago at Dikika, Ethiopia.* Nature **466**, no. 7308 (2010): 857.

Neumann, Charlotte G, Suzanne P Murphy, Connie Gewa, Monika Grillenberger, and Nimrod O Bwibo. *Meat Supplementation Improves Growth, Cognitive, and Behavioral Outcomes in Kenyan Children.* J Nutr **137**, no. 4 (2007): 1119-23.

Pereira, Paula Manuela de Castro Cardoso and Ana Filipa dos Reis Baltazar Vicente. *Meat Nutritional Composition and Nutritive Role in the Human Diet.* Meat Science **93**, no. 3 (2013): 586-92.

Power, Robert C. *Neanderthals and Their Diet.* eLS (2001): 1-9.

Richards, M.P., et al. *Isotope evidence for the intensive use of marine foods by Late Upper Palaeolithic humans.* Journal of Human Evolution, 2005. **49**(3): p. 390-394.

Ruff, Christopher B, Erik Trinkaus, and Trenton W Holliday. *Body Mass and Encephalization in Pleistocene Homo.* Nature **387**, no. 6629 (1997): 173.

Sari, Mayang, Saskia De Pee, Martin W Bloem, Kai Sun, Andrew L Thorne-Lyman, Regina Moench-Pfanner, Nasima Akhter, Klaus Kraemer, and Richard D Semba. *Higher Household Expenditure on Animal-Source and Nongrain Foods Lowers the Risk of Stunting among Children 0–59 Months Old in Indonesia: Implications of Rising Food Prices.* J Nutr **140**, no. 1 (2010): 195S-200S.

Snodgrass, J and William R Leonard. *Neandertal Energetics Revisited: Insights into Population Dynamics and Life History Evolution.* PaleoAnthropology 2009 (2009): 220-37.

Timmermann, Axel. *Quantifying the Potential Causes of Neanderthal Extinction: Abrupt Climate Change Versus Competition and Interbreeding.* Quaternary Science Reviews **238** (2020): 106331.

Torre, M., A.R. Rodriguez, and F. Saura-Calixto, *Effects of dietary fiber and phytic acid on mineral availability.* Crit Rev Food Sci Nutr, 1991. **30**(1): p. 1-22.

Ungar, Peter S, Frederick E Grine, and Mark F Teaford. *Diet in Early Homo: A Review of the Evidence and a New Model of Adaptive Versatility.* Annu. Rev. Anthropol. **35** (2006): 209-28.

Venditti, F., E. Cristiani, S. Nunziante-Cesaro, A. Agam, C. Lemorini and R. Barkai (2019). *Animal residues found on tiny Lower Paleolithic tools reveal their use in butchery.* Scientific reports **9**(1): 1-14.

Wißing, Christoph, Hélène Rougier, Chris Baumann, Alexander Comeyne, Isabelle Crevecoeur, Dorothée G Drucker, Sabine Gaudzinski-Windheuser, Mietje Germonpré, Asier Gómez-Olivencia, and Johannes Krause. *Stable Isotopes Reveal Patterns of Diet and Mobility in the Last Neandertals and First Modern Humans in Europe.* Scientific Reports **9**, no. 1 (2019): 4433.

You, Wenpeng, Renata Henneberg, Arthur Saniotis, Yanfei Ge, and Maciej Henneberg. *Total Meat Intake Is Associated with Life Expectancy: A Cross-Sectional Data Analysis of 175 Contemporary Populations*. International Journal of General Medicine **15** (2022): 1833.

CHAPTER 3: SCIENCE FICTION

Page	Para	
45	4	Daily Mail. (2012). Two cups of coffee a day could help relieve shakes caused by Parkinson's disease. from https://www.dailymail.co.uk/health/article-2182294/Two-cups-coffee-day-help-relieve-shakes-caused-Parkinson-s-disease.html.
45	4	Daily Mail. (2017). Coffee does NOT treat Parkinson's. from https://www.dailymail.co.uk/health/article-4926242/Coffee-does-NOT-help-Parkinson-s-despite-previous-research.html.
45	4	Daily Mail. (2018). Coffee could combat Parkinson's. from https://www.dailymail.co.uk/health/article-6483081/Coffee-combat-Parkinsons-dementia.html.
45	6	Goldacre, B. and R. Farley (2009). *Bad science.* Fourth Estate London.
45	6	Reid, I. C. (2013). *Bad Pharma: How Drug Companies Mislead Doctors and Harm Patients Ben Goldacre. Harper Collins 4th Estate. 2012.£ 13.99 (pb). 364 pp. ISBN: 9780007350742.* The British Journal of Psychiatry **203**(1): 76-76.
46	5	Ioannidis, J.P., Why most published research findings are false. PLoS medicine, 2005. 2(8): p. e124.
46	5	Feinman, R. D. (2019). *Nutrition in crisis: flawed studies, misleading advice, and the real science of human metabolism*. Chelsea Green Publishing.
46	5	Taubes, G. (2012). *Treat obesity as physiology, not physics*. Nature **492**(7428): 155-155.
47	3	Doll, R. and A. B. Hill (1950). *Smoking and carcinoma of the lung.* British medical journal **2**(4682): 739.
48	3	Djoussé, L., J. M. Gaziano, J. E. Buring and I.-M. Lee (2009). *Egg consumption and risk of type 2 diabetes in men and women.* Diabetes care **32**(2): 295-300.
50	2	Chan, D. S., et al. (2011). *Red and processed meat and colorectal cancer incidence: meta-analysis of prospective studies*. PLOS One **6**(6): e20456.
51	2	Waterworth, S. P., C. J. Kerr, C. J. McManus, R. Costello and G. R. Sandercock (2022). *Obese individuals do not underreport dietary intake to a greater extent than nonobese individuals when data are allometrically-scaled.* American Journal of Human Biology: e23743.
52	4	van Berge-Henegouwen, G. and C. Mulder (1993). *Pioneer in the gluten free diet: Willem-Karel Dicke 1905-1962, over 50 years of gluten free diet.* Gut **34**(11): 1473.

53 2 Marton, R. M., X. Wang, A.-L. Barabási and J. P. Ioannidis (2020). *Science, advocacy, and quackery in nutritional books: an analysis of conflicting advice and purported claims of nutritional best-sellers*. Palgrave Communications **6**(1): 1-6.

54 1 Alami, F., M. Alizadeh and K. Shateri (2022). *The effect of a fruit-rich diet on liver biomarkers, insulin resistance, and lipid profile in patients with non-alcoholic fatty liver disease: a randomized clinical trial.* Scandinavian Journal of Gastroenterology: 1-12.

54 1 Peluso, I., et al., *Effects of High Consumption of Vegetables on Clinical, Immunological, and Antioxidant Markers in Subjects at Risk of Cardiovascular Diseases*. Oxidative medicine and cellular longevity, 2018. **2018**.

54 2 Kendrick, M. (2014). Doctoring Data: *How to sort out medical advice from medical nonsense.* Columbus Publishing Limited.

56 1 Kosmas, C.E., et al., *The triglyceride/high-density lipoprotein cholesterol (TG/HDL-C) ratio as a risk marker for metabolic syndrome and cardiovascular disease.* Diagnostics, 2023. **13**(5): p. 929.

56 1 Cipryan, L., et al. (2022). *Very low-carbohydrate high-fat diet improves risk markers for cardiometabolic health more than exercise in men and women with overfat constitution: Secondary analysis of a randomized controlled clinical trial.* Frontiers in Nutrition **9**.

56 1 Farquhar, J., et al., *Glucose, insulin, and triglyceride responses to high and low carbohydrate diets in man.* The Journal of clinical investigation, 1966. **45**(10): p. 1648-1656.

56 1 Packard, C. J., J. Boren and M.-R. Taskinen (2020). *Causes and consequences of hypertriglyceridemia.* Frontiers in endocrinology **11**: 252.

56 1 Garr Barry, V., et al., *Greater loss of central adiposity from low-carbohydrate versus low-fat diet in middle-aged adults with overweight and obesity.* Nutrients, 2021. **13**(2): p. 475.

56 1 Mousavi, S.M., et al., *The effect of a moderately restricted carbohydrate diet on cardiometabolic risk factors in overweight and obese women with metabolic syndrome: a randomized controlled trial.* Clinical Therapeutics, 2023. **45**(3): p. e103-e114.

56 1 Lee, H.S. and J. Lee, *Effects of combined exercise and low carbohydrate ketogenic diet interventions on waist circumference and triglycerides in overweight and obese individuals: a systematic review and meta-analysis*. International Journal of Environmental Research and Public Health, 2021. **18**(2): p. 828.

56 1 Wood, R.J., et al., *Effects of a carbohydrate-restricted diet on emerging plasma markers for cardiovascular disease.* Nutrition & Metabolism, 2006. **3**(1): p. 19.

56 1 Hussain, T.A., et al., *Effect of low-calorie versus low-carbohydrate ketogenic diet in type 2 diabetes*. Nutrition, 2012. **28**(10): p. 1016-21.

56 2 Noakes, T., et al., *Ketogenic: The Science of Therapeutic Carbohydrate Restriction in Human Health* . 2023: Elsevier.

57 3 Ramsden, C. E., D. Zamora, S. Majchrzak-Hong, K. R. Faurot, S. K. Broste, R. P. Frantz, J. M. Davis, A. Ringel, C. M. Suchindran and J. R. Hibbeln (2016). *Re-evaluation of the traditional diet-heart hypothesis: analysis of recovered data from Minnesota Coronary Experiment (1968-73).* BMJ **353**.

Further references

Doll, Richard and A Bradford Hill. *Lung Cancer and Other Causes of Death in Relation to Smoking.* British Medical Journal **2**, no. 5001 (1956): 1071.

Gemming, L., Y. Jiang, B. Swinburn, J. Utter, and C. Ni Mhurchu. Under-Reporting Remains a Key Limitation of Self-Reported Dietary Intake: An Analysis of the 2008/09 New Zealand Adult Nutrition Survey. European Journal of Clinical Nutrition 68 (12/04/online 2013): 259. http://dx.doi.org/10.1038/ejcn.2013.242.

CHAPTER 4: MONUMENTAL FOLLY

Page	Para	
61	1	Gibson, R.S., et al., *A review of phytate, iron, zinc, and calcium concentrations in plant-based complementary foods used in low-income countries and implications for bioavailability.* Food and nutrition bulletin, 2010. **31**(2_suppl2): p. S134-S146.
61	1	Hurrell, R. and I. Egli, *Iron bioavailability and dietary reference values.* The American journal of clinical nutrition, 2010. **91**(5): p. 1461S-1467S.
61	1	Hunt, J.R., *Bioavailability of iron, zinc, and other trace minerals from vegetarian diets.* The American journal of clinical nutrition, 2003. **78**(3): p. 633S-639S.
62	1	Fernandez, M.L., et al., *Highlights of current dietary guidelines in five continents.* International Journal of Environmental Research and Public Health, 2021. **18**(6): p. 2814.
62	1	Health, N.I.o., *Nutrition and your health: dietary guidelines for Americans.* 1980.
62	2	Banerjee, A., *The diet-heart hypothesis: changing perspectives.* Perspect Med Res, 2018. **6**: p. 4-11.
63	1	Statistics, N.C.f.H. Macronutrients consumption in USA. 2023; Available from: https://www.cdc.gov/nchs/hus/topics/nutrition.htm.
63	1	Data, N.N. Obesity and overweight statistics USA 2018; Available from: https://www.niddk.nih.gov/health-information/health-statistics/overweight-obesity.
63	2	Taubes, G., *The diet delusion* . 2008: Random House.
63	2	Taubes, G., *The Case for Keto: The Truth About Low-Carb, High-Fat Eating* . 2020: Granta Books.
63	2	Astrup, A., et al., *Dietary saturated fats and health: are the US guidelines evidence-based?* Nutrients, 2021. **13**(10): p. 3305.
63	2	Teicholz, N., *The big fat surprise: why butter, meat and cheese belong in a healthy diet* . 2014: Simon and Schuster.
63	2	Dehghan, M., et al., *Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study.* The Lancet, 2017. **390**(10107): p. 2050-2062.
64	1	Public Health England. The Eatwell Guide. 2018; Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742750/Eatwell_Guide_booklet_2018v4.pdf.
64	1	Harcombe, Z., *Designed by the food industry for wealth, not health: the 'Eatwell Guide'* . 2016, BMJ Publishing Group Ltd and British Association of Sport and Exercise Medicine.

Further references

Harcombe, Z., et al., *Evidence from randomised controlled trials does not support current dietary fat guidelines: a systematic review and meta-analysis*. Open heart, 2016. **3**(2): p. e000409.

Hoenselaar, R., *Saturated fat and cardiovascular disease: the discrepancy between the scientific literature and dietary advice.* Nutrition, 2012. **28**(2): p. 118-123.

Page Para **CHAPTER 5:** CEREAL KILLERS

73 1 Wasserman, D.H., *Four grams of glucose.* American Journal of Physiology-Endocrinology and Metabolism, 2009. **296**(1): p. E11-E21.

73 4 Forouhi, N.G., et al. *Dietary and nutritional approaches for prevention and management of type 2 diabetes*. BMJ, 2018. **361**: p. k2234.

73 4 Astley, C.M., et al. *Genetic evidence that carbohydrate-stimulated insulin secretion*
75 2 *leads to obesity.* Clinical chemistry, 2018. **64**(1): p. 192-200.

73 4 van Vliet, S., et al. *Obesity is Associated with Increased Basal and Postprandial beta-*
75 2 *Cell Insulin Secretion Even in the Absence of Insulin Resistance.* Diabetes, 2020.

75 2 WHO. NCD mortality and morbidity. 2015 2 August 2018]; Available from:
75 5 http://www.who.int/gho/ncd/mortality_morbidity/en/.

76 1 Weyer, C., et al. *A high fasting plasma insulin concentration predicts type 2 diabetes independent of insulin resistance: evidence for a pathogenic role of relative hyperinsulinemia.* Diabetes, 2000. **49**(12): p. 2094-101.

79 2 Feltham, S. and Westman, E.C. *A case study of overfeeding 3 different diets*. Current Opinion in Endocrinology & Diabetes and Obesity. 2001. **28**(5), p. 446-452.

80 1 Lee, M.-K., et al., *Cumulative exposure to hypertriglyceridemia and risk of type 2 diabetes in young adults*. Diabetes Research and Clinical Practice, 2024. **208**: p. 111109.

80 1 Pan, D., et al., *Skeletal muscle triglyceride levels are inversely related to insulin action.* Diabetes, 1997. **46**(6): p. 983-988.

80 2 Sieri, S., et al. *Glycemic index, glycemic load, and risk of coronary heart disease: a pan-European cohort study.* The American Journal of Clinical Nutrition, 2020. **112**(3): p. 631-643.

80 2 Siri-Tarino, P.W., et al. S*aturated fats versus polyunsaturated fats versus carbohydrates for cardiovascular disease prevention and treatment.* Annual Review of Nutrition, 2015. **35**: p. 517-543.

80 2 Siri, P.W. and R.M. Krauss, *Influence of dietary carbohydrate and fat on LDL and HDL particle distributions*. Current Atherosclerosis Reports, 2005. **7**(6): p. 455-459.

80 3 Hudgins, L.C., et al. *Human fatty acid synthesis is stimulated by a eucaloric low fat, high carbohydrate diet.* The Journal of clinical investigation, 1996. **97**(9): p. 2081-2091.

80 3 King, I.B., R.N. Lemaitre, and M. Kestin, *Effect of a low-fat diet on fatty acid composition in red cells, plasma phospholipids, and cholesterol esters: investigation of a biomarker of total fat intake.* The American Journal of Clinical Nutrition, 2006. **83**(2): p. 227-236.

80 3 Parks, E.J. and M.K. Hellerstein, *Carbohydrate-induced hypertriacylglycerolemia: historical perspective and review of biological mechanisms*. The American Journal of Clinical Nutrition, 2000. **71**(2): p. 412-433.

80 4 Cipryan, L., et al., *Effects of a very low-carbohydrate high-fat diet and high-intensity interval training on visceral fat deposition and cardiorespiratory fitness in overfat individuals: A randomized controlled clinical trial.* Frontiers in nutrition, 2021: p. 1144

80 4 Follis, S., et al., *Effect of Low-Carbohydrate vs Low-Fat Diet Intervention on Visceral Fat in a 12-Month Randomized Controlled Trial.* 2024.

80 4 Goss, A.M., et al., *Effects of weight loss during a very low carbohydrate diet on specific adipose tissue depots and insulin sensitivity in older adults with obesity: a randomized clinical trial.* Nutrition & metabolism, 2020. **17**: p. 1-12.

80 4 Hamdy, O., S. Porramatikul, and E. Al-Ozairi, *Metabolic obesity: the paradox between visceral and subcutaneous fat.* Current Diabetes Reviews, 2006. **2**(4): p. 367-373.

80 4 Schwarz, J.-M., et al. *Hepatic de novo lipogenesis in normoinsulinemic and hyperinsulinemic subjects consuming high-fat, low-carbohydrate and low-fat, high-carbohydrate isoenergetic diets*. The American Journal of Clinical Nutrition, 2003. **77**(1): p. 43-50.

80 4 Schwarz, J.-M., et al. *Short-term alterations in carbohydrate energy intake in humans. Striking effects on hepatic glucose production, de novo lipogenesis, lipolysis, and whole-body fuel selection.* The Journal of Clinical Investigation, 1995. **96**(6): p. 2735-2743.

80 4 Song, X., et al. *A low-fat high-carbohydrate diet reduces plasma total adiponectin concentrations compared to a moderate-fat diet with no impact on biomarkers of systemic inflammation in a randomized controlled feeding study.* European Journal of Nutrition, 2016. **55**(1): p. 237-246.

80 4 Tayyem, R.F., et al. *Subcutaneous and visceral fat volumes measured by MRI and their relationships with nutrient intakes among adults*. Asia Pacific Journal of Clinical Nutrition, 2019. **28**(2): p. 300.

82 2 Holsen, L.M., et al. *Diets varying in carbohydrate content differentially alter brain activity in homeostatic and reward regions in adults*. The Journal of Nutrition, 2021. **151**(8), p. 2465-2476.

82 2 Lennerz, B.S., et al. *Effects of dietary glycemic index on brain regions related to reward and craving in men.* The American Journal of Clinical Nutrition, 2013. **98**(3), p. 641-647.

82 2 Zilberter, T. *Carbohydrate-biased control of energy metabolism: the darker side of the selfish brain.* Frontiers in Neurogenetics, 2011. **3**, p. 8.

82 3 Dankner, R., et al. *Basal state hyperinsulinemia in healthy normoglycemic adults heralds dysglycemia after more than two decades of follow up.* Diabetes Metab Res Rev, 2012. **28**(7): p. 618-24.

83 4 Gundry, S.R. and Solimene, C. *The plant paradox.* 2017. HarperCollins.

83 4 Jönsson, Tommy, Stefan Olsson, Bo Ahrén, Thorkild C Bøg-Hansen, Anita Dole, and Staffan Lindeberg. *Agrarian Diet and Diseases of Affluence–Do Evolutionary Novel Dietary Lectins Cause Leptin Resistance?* BMC Endocr Disord **5**, no. 1 (2005): 10.

84 3 Dashti, H.M., et al. *Beneficial effects of ketogenic diet in obese diabetic subjects*. Molecular and cellular biochemistry, 2007. **302**(1-2): p. 249-256.

84 3 Lim, E., et al. *Reversal of type 2 diabetes: normalisation of beta cell function in association with decreased pancreas and liver triacylglycerol.* Diabetologia, 2011. **54**(10): p. 2506-2514.

84 3 Tóth, C. and Z. Clemens. *Successful treatment of a patient with obesity, type 2 diabetes and hypertension with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2015. **6**(3): p. 161-167.

Further references

Bazzano, Lydia A, Tian Hu, Kristi Reynolds, Lu Yao, Calynn Bunol, Yanxi Liu, Chung-Shiuan Chen, Michael J Klag, Paul K Whelton, and Jiang He. *Effects of Low-Carbohydrate and Low-Fat Diets: A Randomized Trial.* Annals of Internal Medicine **161**, no. 5 (2014): 309-18.

Borel, A., et al. *Visceral, subcutaneous abdominal adiposity and liver fat content distribution in normal glucose tolerance, impaired fasting glucose and/or impaired glucose tolerance.* International journal of obesity, 2015. **39**(3): p. 495-501.

Crofts, C., et al. *Hyperinsulinemia: A unifying theory of chronic disease.* Diabesity, 2015. **1**(4): p. 34-43.

Crofts, C., et al. *Identifying hyperinsulinaemia in the absence of impaired glucose tolerance: An examination of the Kraft database.* Diabetes Research and Clinical Practice, 2016. **118**: p. 50-57.

Crofts, C., *Understanding and Diagnosing Hyperinsulinaemia* . 2015, Auckland University of Technology.

Fontes-Villalba, M., S. Lindeberg, Y. Granfeldt, F. K. Knop, A. A. Memon, P. Carrera-Bastos, O. Picazo, M. Chanrai, J. Sunquist, K. Sundquist, and T. Jonsson. Palaeolithic Diet Decreases Fasting Plasma Leptin Concentrations More Than a Diabetes Diet in Patients with Type 2 Diabetes: A Randomised Cross-over Trial. Cardiovascular Diabetology 15 (May 2016). http://dx.doi.org/10.1186/s12933-016-0398-1.

Gerber, Philipp A and Kaspar Berneis. *Regulation of Low-Density Lipoprotein Subfractions by Carbohydrates* Current Opinion in Clinical Nutrition & Metabolic Care **15**, no. 4 (2012): 381-85.

Gillman, Matthew W, L Adrienne Cupples, Barbara E Millen, R Curtis Ellison, and Philip A Wolf. *Inverse Association of Dietary Fat with Development of Ischemic Stroke in Men.* JAMA-Journal of the American Medical Association-US Edition **278**, no. 24 (1997): 2145-50.

Golan, R., et al. *Abdominal superficial subcutaneous fat: a putative distinct protective fat subdepot in type 2 diabetes.* Diabetes care, 2012. **35**(3): p. 640-647.

Gonzalez, Eva, Emily Flier, Dorothee Molle, Domenico Accili, and Timothy E McGraw. *Hyperinsulinemia Leads to Uncoupled Insulin Regulation of the Glut4 Glucose Transporter and the Foxo1 Transcription Factor.* Proceedings of the National Academy of Sciences **108**, no. 25 (2011): 10162-67.

Hall, Elin, Josefine Jönsson, Jones K Ofori, Petr Volkov, Alexander Perfilyev, Marloes Dekker Nitert, Lena Eliasson, Charlotte Ling, and Karl Bacos. *Glucolipotoxicity Alters Insulin Secretion Via Epigenetic Changes in Human Islets.* Diabetes **68**, no. 10 (2019): 1965-74.

Hayashi, T., et al. *Patterns of insulin concentration during the OGTT predict the risk of type 2 diabetes in Japanese Americans.* Diabetes care, 2013. **36**(5): p. 1229-1235.

Horita, S., et al. *Insulin resistance, obesity, hypertension, and renal sodium transport.* International journal of hypertension, 2011. 2011.

Janssen, J.A., *Hyperinsulinemia and Its Pivotal Role in Aging, Obesity, Type 2 Diabetes, Cardiovascular Disease and Cancer.* International Journal of Molecular Sciences, 2021. **22**(15): p. 7797.

Jönsson, Tommy, Ashfaque A Memon, Kristina Sundquist, Jan Sundquist, Stefan Olsson, Amarnadh Nalla, Mikael Bauer, and Sara Linse. *Digested Wheat Gluten Inhibits Binding between Leptin and Its Receptor.* BMC Biochemistry **16**, no. 1 (2015): 3.

Kaaks, R. *Nutrition, Hormones, and Breast Cancer: Is Insulin the Missing Link?* Cancer Causes Control **7**, no. 6 (Nov 1996): 605-25.

Kassi, Eva and Athanasios G Papavassiliou. *Could Glucose Be a Proaging Factor?* Journal of Cellular and Molecular Medicine **12**, no. 4 (2008): 1194-98.

Kelly, Christopher T, Janet Mansoor, G Lynis Dohm, William HH Chapman, John R Pender, and Walter J Pories. *Hyperinsulinemic Syndrome: The Metabolic Syndrome Is Broader Than You Think.* Surgery **156**, no. 2 (2014): 405-11.

King, R., et al. *What is the best predictor of the atherogenic LDL subclass phenotype 'pattern B'in patients with type 2 diabetes mellitus?* Annals of clinical biochemistry, 2011. **48**(2): p. 166-169.

Kopp, Wolfgang. Diet-Induced Hyperinsulinemia as a Key Factor in the Etiology of Both Benign Prostatic Hyperplasia and Essential Hypertension? Nutrition and Metabolic Insights 11 (2018/01/01 2018): 1178638818773072. Accessed 2018/06/24. http://dx.doi.org/10.1177/1178638818773072.

Kopp, Wolfgang. *The Atherogenic Potential of Dietary Carbohydrate.* Preventive Medicine **42**, no. 5 (2006): 336-42.

Kroemer, Guido, Carlos López-Otín, Frank Madeo, and Rafael de Cabo. *Carbotoxicity—Noxious Effects of Carbohydrates.* Cell **175**, no. 3 (2018): 605-14.

Maekawa, Satoshi, Tetsuya Kawahara, Ryosuke Nomura, Takayuki Murase, Yasuyoshi Ann, Masayuki Oeholm, and Masaru Harada. *Retrospective Study on the Efficacy of a Low-Carbohydrate Diet for Impaired Glucose Tolerance.* Diabetes, metabolic syndrome and obesity: targets and therapy **7** (2014): 195.

Martin, Blaise C, James H Warram, AS Krolewski, JS Soeldner, CR Kahn, and RN Bergman. *Role of Glucose and Insulin Resistance in Development of Type 2 Diabetes Mellitus: Results of a 25-Year Follow-up Study.* The Lancet **340**, no. 8825 (1992): 925-29.

McAuley, K. A., S. M. Williams, J. I. Mann, R. J. Walker, N. J. Lewis-Barned, L. A. Temple, and A. W. Duncan. *Diagnosing Insulin Resistance in the General Population.* Diabetes Care **24**, no. 3 (Mar 2001): 460-4.

Nilsson, P, J-Å Nilsson, Bo Hedblad, K-F Eriksson, and Göran Berglund. *Hyperinsulinaemia as Long-Term Predictor of Death and Ischaemic Heart Disease in Nondiabetic Men: The Malmö Preventive Project.* Journal of Internal Medicine **253**, no. 2 (2003): 136-45.

Oliveri, Antonino, Ryan J Rebernick, Annapurna Kuppa, Asmita Pant, Yanhua Chen, Xiaomeng Du, Kelly C Cushing, Hannah N Bell, Chinmay Raut, and Ponnandy Prabhu. *Comprehensive Genetic Study of the Insulin Resistance Marker Tg: Hdl-C in the Uk Biobank.* Nature Genetics **56**, no. 2 (2024): 212-21.

Perkins, Jennifer M, Nino G Joy, Donna B Tate, and Stephen N Davis. *Acute Effects of Hyperinsulinemia and Hyperglycemia on Vascular Inflammatory Biomarkers and Endothelial Function in Overweight and Obese Humans.* American Journal of Physiology-Endocrinology and Metabolism **309**, no. 2 (2015): E168-E76.

Saslow, Laura R, Jennifer J Daubenmier, Judith T Moskowitz, Sarah Kim, Elizabeth J Murphy, Stephen D Phinney, Robert Ploutz-Snyder, Veronica Goldman, Rachel M Cox, and Ashley E Mason. *Twelve-Month Outcomes of a Randomized Trial of a Moderate-Carbohydrate Versus Very Low-Carbohydrate Diet in Overweight Adults with Type 2 Diabetes Mellitus or Prediabetes.* Nutrition and Diabetes **7**, no. 12 (2017): 304.

Schwartz, Gary J, Jin Fu, Giuseppe Astarita, Xiaosong Li, Silvana Gaetani, Patrizia Campolongo, Vincenzo Cuomo, and Daniele Piomelli. *The Lipid Messenger Oea Links Dietary Fat Intake to Satiety.* Cell Metab **8**, no. 4 (2008): 281-88.

Shelmet, John J, George A Reichard, Charles L Skutches, Robert D Hoeldtke, Oliver E Owen, and Guenther Boden. *Ethanol Causes Acute Inhibition of Carbohydrate, Fat, and Protein Oxidation and Insulin Resistance.* The Journal of Clinical Investigation **81**, no. 4 (1988): 1137-45.

Shin, Woo-Kyoung, Sangah Shin, Jong-koo Lee, Daehee Kang, and Jung Eun Lee. *Carbohydrate Intake and Hyperlipidemia among Population with High-Carbohydrate Diets: The Health Examinees Gem Study.* Molecular Nutrition & Food Research **65**, no. 3 (2021): 2000379.

Sung, Ki-Chul C., Mi-Hae H. Seo, Eun-Jung J. Rhee, and Andrew M. Wilson. *Elevated Fasting Insulin Predicts the Future Incidence of Metabolic Syndrome: A 5-Year Follow-up Study.* Cardiovascular Diabetology **10** (11/30

Taylor, R. and R.R. Holman, *Normal weight individuals who develop type 2 diabetes: the personal fat threshold.* Clin Sci (Lond), 2015. **128**(7): p. 405-10.

Taylor, R., et al. *Remission of Human Type 2 Diabetes Requires Decrease in Liver and Pancreas Fat Content but Is Dependent upon Capacity for β Cell Recovery.* Cell Metab, 2018. **28**(4): p. 547-556.e3.

Tucker, L. A., A. Erickson, J. D. LeCheminant, and B. W. Bailey. Dairy Consumption and Insulin Resistance: The Role of Body Fat, Physical Activity, and Energy Intake. J Diabetes Res 2015 (2015): 206959. http://dx.doi.org/10.1155/2015/206959.

Turner, K. M., J. B. Keogh, and P. M. Clifton. Red Meat, Dairy, and Insulin Sensitivity: A Randomized Crossover Intervention Study. Am J Clin Nutr 101, no. 6 (Jun 2015): 1173-9. http://dx.doi.org/10.3945/ajcn.114.104976.

Westman, E. C., R. D. Feinman, J. C. Mavropoulos, M. C. Vernon, J. S. Volek, J. A. Wortman, W. S. Yancy, and S. D. Phinney. Low-Carbohydrate Nutrition and Metabolism. Am J Clin Nutr 86, no. 2 (Aug 2007): 276-84. http://dx.doi.org/10.1093/ajcn/86.2.276.

WHO. Diabetes Mellitus Fact sheet N°138. 2016 5 June 2018]; Available from: http://www.who.int/mediacentre/factsheets/fs138/en/.

WHO. Diabetes. 2020; Available from: https://www.who.int/news-room/fact-sheets/detail/diabetes.

Yancy, W. S., Jr., M. Foy, A. M. Chalecki, M. C. Vernon, and E. C. Westman. A Low-Carbohydrate, Ketogenic Diet to Treat Type 2 Diabetes. Nutr Metab (Lond) 2 (Dec 1 2005): 34. http://dx.doi.org/10.1186/1743-7075-2-34.

Young, Charlotte M, Sonia S Scanlan, Hae Sook Im, and Leo Lutwak. *Effect on Body Composition and Other Parameters in Obese Young Men of Carbohydrate Level of Reduction Diet.* Am J Clin Nutr 24, no. 3 (1971): 290-96.

Younossi, Z., et al. *Global burden of NAFLD and NASH: trends, predictions, risk factors and prevention.* Nature Reviews Gastroenterology and Hepatology, 2018. **15**(1): p. 11.

Zavaroni, I., L. Bonini, P. Gasparini, A. L. Barilli, A. Zuccarelli, E. Dall'Aglio, R. Delsignore, and G. M. Reaven. *Hyperinsulinemia in a Normal Population as a Predictor of Non-Insulin-Dependent Diabetes Mellitus, Hypertension, and Coronary Heart Disease: The Barilla Factory Revisited.* Metabolism 48, no. 8 (Aug 1999): 989-94.

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Page	Para	
87	4	Arnold, M., et al. *Global patterns and trends in colorectal cancer incidence and mortality.* Gut, 2017. **66**(4): p. 683-691.
87	4	Cancer Research UK. Do foods high in fibre reduce my risk of cancer? 2019; Available from: https://www.cancerresearchuk.org/about-cancer/causes-of-cancer/diet-and-cancer/do-foods-high-in-fibre-reduce-my-risk-of-cancer.
88	2	Nakaji, S., et al. *No preventive effect of dietary fiber against colon cancer in the Japanese population: a cross-sectional analysis.* Nutrition and cancer, 2003. **45**(2): p. 156-159.
88	2	Otani, T., et al. *Dietary fiber intake and subsequent risk of colorectal cancer: the Japan Public Health Center-based prospective study.* International Journal of Cancer, 2006. **119**(6): p. 1475-1480.
88	2	Park, Y., et al. *Dietary fiber intake and risk of colorectal cancer: a pooled analysis of prospective cohort studies.* JAMA, 2005. **294**(22): p. 2849-57.
88	3	Fuchs, C.S., et al. *Dietary fiber and the risk of colorectal cancer and adenoma in women.* New England Journal of Medicine, 1999. **340**(3): p. 169-176.
88	3	Sheryl Stolberg. Fiber Does Not Help Prevent Colon Cancer, Study Finds. 1999; Available from: https://archive.nytimes.com/www.nytimes.com/library/national/science/health/012199sci-fiber-cancer.html.
88	4	Steinmetz, K.A., et al. *Vegetables, fruit, and colon cancer in the lowa women's health study.* American journal of epidemiology, 1994. **139**(1): p. 1-15.
88	5	Giovannucci, E., et al. *Intake of fat, meat, and fiber in relation to risk of colon cancer in men.* Cancer research, 1994. **54**(9): p. 2390-2397.
89	1	McCullough, M.L., et al. *A prospective study of whole grains, fruits, vegetables and colon cancer risk.* Cancer Causes & Control, 2003. **14**(10): p. 959-970.
89 94	2 2	den Besten, G., et al. *The role of short-chain fatty acids in the interplay between diet, gut microbiota, and host energy metabolism.* J Lipid Res, 2013. **54**(9): p. 2325-40.
89	2	Goodlad, R., *Dietary fibre and the risk of colorectal cancer.* Gut, 2001. **48**(5): p. 587-589.

89 2 Wasan, H.S. and R.A. Goodlad, *Fibre-supplemented foods may damage your health.* 90 1 Lancet (London, England), 1996. **348**(9023): p. 319.

89 2 Wikipedia. The Lancet. 2020; Available from: https://en.wikipedia.org/wiki/The_Lancet.

89 3 Kim, Y.I., *AGA technical review: impact of dietary fiber on colon cancer occurrence.* Gastroenterology, 2000. **118**(6): p. 1235-1257.

89 3 Lewin, M.R., *Is there a fibre-depleted aetiology for colorectal cancer? Experimental evidence.* Reviews on environmental health, 1991. **9**(1): p. 17-30.

89 5 Schatzkin, A., et al. *Lack of effect of a low-fat, high-fiber diet on the recurrence of colorectal adenomas.* New England Journal of Medicine, 2000. **342**(16): p. 1149-1155.

89 6 Bonithon-Kopp, C., et al. *Calcium and fibre supplementation in prevention of colorectal adenoma recurrence: a randomised intervention trial.* The Lancet, 2000. 356(9238): p. 1300-1306.

90 3 Yao, Y., et al. *Dietary fibre for the prevention of recurrent colorectal adenomas and carcinomas.* Cochrane Database of Systematic Reviews, 2017(1).

90 4 Sengupta, S., J.J. Tjandra, and P.R. Gibson, *Dietary fiber and colorectal neoplasia.* Diseases of the colon & rectum, 2001. **44**(7): p. 1016-1033.

90 6 Rossi, M., et al. *Colorectal cancer and alcohol consumption—populations to molecules.* Cancers, 2018. **10**(2): p. 38.

90 6 Sieri, S. and V. Krogh, *Dietary glycemic index, glycemic load and cancer: An overview of the literature.* Nutrition, Metabolism and Cardiovascular Diseases, 2017. **27**(1): p. 18-31.

90 8 Tamura, A., et al. *Prevalence and self-recognition of chronic constipation: results of an internet survey.* Journal of neurogastroenterology and motility, 2016. **22**(4): p. 677.

91 2 Müller-Lissner, S., *The pathophysiology, diagnosis, and treatment of constipation.* Deutsches Ärzteblatt International, 2009. **106**(25): p. 424.

91 3 Ho, K.-S., et al. *Stopping or reducing dietary fiber intake reduces constipation and its* 91 4 *associated symptoms.* World Journal of Gastroenterology: WJG, 2012. **18**(33): p. 4593.
93 3

92 2 Campbell, A.J., W.J. Busby, and C.C. Horwath, *Factors associated with constipation in a community based sample of people aged 70 years and over.* Journal of Epidemiology & Community Health, 1993. **47**(1): p. 23-26.

92 2 Chuwa, E. and F. Seow-Choen, *Dietary fibre.* British Journal of Surgery: Incorporating European Journal of Surgery and Swiss Surgery, 2006. **93**(1): p. 3-4.

92 2 Tan, K.-Y. and F. Seow-Choen, *Fiber and colorectal diseases: separating fact from fiction.* World journal of gastroenterology: WJG, 2007. **13**(31): p. 4161.

92 2 Voderholzer, W.A., et al. *Clinical response to dietary fiber treatment of chronic constipation.* American Journal of Gastroenterology, 1997. **92**(1).

92 5 Roebroeks, W., L.C. Aiello, and W.R. Leonard, *Guts and Brains: an integrative approach to the hominin record* . 2007: Leiden University Press.

93 4 Xiong, R.-G., et al. *Health benefits and side effects of short-chain fatty acids.* Foods, 94 5 2022. **11**(18): p. 2863.

93 4 Youm, Y.-H., et al. *The ketone metabolite β-hydroxybutyrate blocks NLRP3 inflammasome–mediated inflammatory disease.* Nature medicine, 2015. **21**(3): p. 263.

94 3 Bouchi, R., et al. *High visceral fat with low subcutaneous fat accumulation as a determinant of atherosclerosis in patients with type 2 diabetes.* Cardiovascular diabetology, 2015. **14**(1): p. 136.

94 3 Korsten, S.G., et al. *Butyrate Protects Barrier Integrity and Suppresses Immune Activation in a Caco-2/PBMC Co-Culture Model While HDAC Inhibition Mimics Butyrate in Restoring Cytokine-Induced Barrier Disruption.* Nutrients, 2023. **15**(12): p. 2760.

94 3 Vancamelbeke, M., et al. *Butyrate does not protect against inflammation-induced loss of epithelial barrier function and cytokine production in primary cell monolayers from patients with ulcerative colitis.* Journal of Crohn's and Colitis, 2019. **13**(10): p. 1351-1361.

95 3 Walker, A.W. and L. Hoyles, *Human microbiome myths and misconceptions.* Nature Microbiology, 2023. **8**(8): p. 1392-1396.

96 2 Clemens, Z. and C. Tóth, *Paleolithic ketogenic diet (PKD) in chronic diseases: Clinical and research data.* Journal of Evolution and Health, 2018. **3**(2): p. 6.

96 2 Clemens, Z., A. Kelemen, and C. Tóth, *NREM-sleep associated epileptiform discharges disappeared following a shift toward the paleolithic ketogenic diet in a child with extensive cortical malformation.* Am J Med Case Rep, 2015. **3**(7): p. 212-5.

96 2 Clemens, Z., et al. *Childhood absence epilepsy successfully treated with the paleolithic ketogenic diet.* Neurology and therapy, 2013. **2**(1-2): p. 71-76.

96 2 Tóth, C. and Z. Clemens, *Type 1 diabetes mellitus successfully managed with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2014. **5**(10): p. 699-703.

96 2 Tóth, C., et al. *Crohn's disease successfully treated with the paleolithic ketogenic diet.* Int. J. Case Rep. Images, 2016. **7**: p. 570-578.

96 2 TÛth, C. and Z. Clemens, *Successful treatment of a patient with obesity, type 2 diabetes and hypertension with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2015. **6**(3): p. 161-167.

96 4 Owczarek, D., et al. *Diet and nutritional factors in inflammatory bowel diseases.* World Journal of Gastroenterology, 2016. **22**(3): p. 895.

96 4 Vanhauwaert, E., et al. *Low-residue and low-fiber diets in gastrointestinal disease management.* Advances in Nutrition, 2015. **6**(6): p. 820-827.

97 2 Garr Barry, V., et al., *Greater loss of central adiposity from low-carbohydrate versus low-fat diet in middle-aged adults with overweight and obesity.* Nutrients, 2021. **13**(2): p. 475.

97 2 Tayyem, R.F., et al. *Subcutaneous and visceral fat volumes measured by MRI and their relationships with nutrient intakes among adults.* Asia Pacific journal of clinical nutrition, 2019. **28**(2): p. 300.

97 4 Woods, C., et al. *Development of necrotizing enterocolitis in premature infants receiving thickened feeds using SimplyThick®.* Journal of Perinatology, 2012. **32**(2): p. 150-152.

97 6 Lin, J., *Too much short chain fatty acids cause neonatal necrotizing enterocolitis.* Medical hypotheses, 2004. **62**(2): p. 291-293.

98 3 Aiello, L.C. and P. Wheeler, *The expensive-tissue hypothesis: the brain and the digestive system in human and primate evolution.* Current anthropology, 1995. **36**(2): p. 199-221.

Further references

Acosta, Ruben D and Brooks D Cash. *Clinical Effects of Colonic Cleansing for General Health Promotion: A Systematic Review.* Official journal of the American College of Gastroenterology ACG **104**, no. 11 (2009): 2830-36.

Alexander, Dominik D, Douglas L Weed, Colleen A Cushing, and Kimberly A Lowe. *Meta-Analysis of Prospective Studies of Red Meat Consumption and Colorectal Cancer.* European Journal of Cancer Prevention **20**, no. 4 (2011): 293-307.

Gonlachanvit, S, R Coleski, C Owyang, and WL Hasler. *Inhibitory Actions of a High Fibre Diet on Intestinal Gas Transit in Healthy Volunteers.* Gut **53**, no. 11 (2004): 1577-82.

Ho, Kok-Sun, Charmaine You Mei Tan, Muhd Ashik Mohd Daud, and Francis Seow-Choen. *Stopping or Reducing Dietary Fiber Intake Reduces Constipation and Its Associated Symptoms.* World Journal of Gastroenterology: WJG **18**, no. 33 (2012): 4593.

Howarth, N. C., E. Saltzman, M. A. McCrory, A. S. Greenberg, J. Dwyer, L. Ausman, D. G. Kramer, and S. B. Roberts. *Fermentable and Nonfermentable Fiber Supplements Did Not Alter Hunger, Satiety or Body Weight in a Pilot Study of Men and Women Consuming Self-Selected Diets.* J Nutr **133**, no. 10 (Oct 2003): 3141-4.

https://news.cancerresearchuk.org/2009/06/24/what-are-antioxidants-and-are-they-good-for-us-part-1/

https://news.cancerresearchuk.org/2009/06/25/what-are-antioxidants-and-are-they-good-for-us-part-2/

https://www.diabetes.co.uk/diabetes-prevalence.html

Hunt, Kevin D. Chimpanzee: *Lessons from Our Sister Species.* Cambridge University Press, 2020.

Jönsson, Tommy, Stefan Olsson, Bo Ahrén, Thorkild C Bøg-Hansen, Anita Dole, and Staffan Lindeberg. *Agrarian Diet and Diseases of Affluence–Do Evolutionary Novel Dietary Lectins Cause Leptin Resistance?* BMC Endocr Disord **5**, no. 1 (2005): 10.

Kendrick, Malcolm. *The Clot Thickens: The Enduring Mystery of Heart Disease* . Columbus Publishing Limited, 2021.

Klurfeld, David M and David Kritchevsky. *Dietary Fiber and Human Cancer: Critique of the Literature.* In Essential Nutrients in Carcinogenesis, 119-35: Springer, 1986.

Klurfeld, David M. *Research Gaps in Evaluating the Relationship of Meat and Health.* Meat science **109** (2015): 86-95.

Klurfeld, David M. *What Is the Role of Meat in a Healthy Diet?* Animal Frontiers **8**, no. 3 (2018): 5-10.

Kritchevsky, David. *Fiber and Cancer.* Medical Oncology and Tumor Pharmacotherapy **7**, no. 2-3 (1990): 137-41.

McRorie Jr, Johnson W and Nicola M McKeown. *Understanding the Physics of Functional Fibers in the Gastrointestinal Tract: An Evidence-Based Approach to Resolving Enduring Misconceptions About Insoluble and Soluble Fiber.* Journal of the Academy of Nutrition and Dietetics **117**, no. 2 (2017): 251-64.

Methy, Nicolas, Christine Binquet, Marie-Christine Boutron-Ruault, Bernard Paillot, Jean Faivre, and Claire Bonithon-Kopp. *Dietary Fatty Acids and Recurrence of Colorectal Adenomas in a European Intervention Trial.* Nutrition and Cancer **60**, no. 5 (2008): 560-67.

Michels, Karin B, Charles S Fuchs, Edward Giovannucci, Graham A Colditz, David J Hunter, Meir J Stampfer, and Walter C Willett. *Fiber Intake and Incidence of Colorectal Cancer among 76,947 Women and 47,279 Men.* Cancer Epidemiology and Prevention Biomarkers 14, no. **4** (2005): 842-49.

Michels, Karin B, Edward Giovannucci, Kaumudi J Joshipura, Bernard A Rosner, Meir J Stampfer, Charles S Fuchs, Graham A Colditz, Frank E Speizer, and Walter C Willett. *Prospective Study of Fruit and Vegetable Consumption and Incidence of Colon and Rectal Cancers.* Journal of the National Cancer Institute 92, no. **21** (2000): 1740-52.

Møller, Peter, Ulla Vogel, Anette Pedersen, Lars O Dragsted, Brittmarie Sandström, and Steffen Loft. *No Effect of 600 Grams Fruit and Vegetables Per Day on Oxidative DNA Damage and Repair in Healthy Nonsmokers.* Cancer Epidemiology and Prevention Biomarkers **12**, no. 10 (2003): 1016-22.

Oliero, Manon, Ahmed Amine Alaoui, Claire McCartney, and Manuela M Santos. *Colorectal Cancer and Inulin Supplementation: The Good, the Bad, and the Unhelpful.* Gastroenterology Report **12** (2024): goae058.

Oliero, Manon, Annie Calvé, Gabriela Fragoso, Thibault Cuisiniere, Roy Hajjar, Ulrich Dobrindt, and Manuela M Santos. *Inulin and Galacto-Oligosaccharides Increase the Genotoxic Effect of Colibactin Produced by Pks+ Escherichia Coli Strains.* (2020).

Parsons, J. Kellogg, David Zahrieh, James L. Mohler, Electra Paskett, Donna E. Hansel, Adam S. Kibel, Heshan Liu, Drew K. Seisler, Loki Natarajan, Martha White, Olwen Hahn, John Taylor, Sheri J. Hartman, Sean P. Stroup, Peter Van Veldhuizen, Lannis Hall, Eric J. Small, Michael J. Morris, John P. Pierce, and James Marshall. Effect of a Behavioral Intervention to Increase Vegetable Consumption on Cancer Progression among Men with Early-Stage Prostate Cancer: The Meal Randomized Clinical Trial. Jama 323, no. 2 (2020): 140-48. Accessed 1/15/2020. http://dx.doi.org/10.1001/jama.2019.20207.

Peery, A. F., P. R. Barrett, D. Park, A. J. Rogers, J. A. Galanko, C. F. Martin, and R. S. Sandler. A High-Fiber Diet Does Not Protect against Asymptomatic Diverticulosis. Gastroenterology 142, no. 2 (Feb 2012): 266-72.e1. http://dx.doi.org/10.1053/j.gastro.2011.10.035.

Peery, Anne F, Robert S Sandler, Dennis J Ahnen, Joseph A Galanko, Adrian N Holm, Aasma Shaukat, Leila A Mott, Elizabeth L Barry, David A Fried, and John A Baron. *Constipation and a Low-Fiber Diet Are Not Associated with Diverticulosis.* Clinical Gastroenterology and Hepatology **11**, no. 12 (2013): 1622-27.

Peluso, Ilaria, Anna Raguzzini, Giovina Catasta, Vittoria Cammisotto, Anna Perrone, Carlo Tomino, Elisabetta Toti, and Mauro Serafini. *Effects of High Consumption of Vegetables on Clinical, Immunological, and Antioxidant Markers in Subjects at Risk of Cardiovascular Diseases.* Oxidative medicine and cellular longevity **2018** (2018).

Roberfroid, M., *Role of dietary factors in the modulation of cancer induction.* 1993.

Tan, Kok-Yang and Francis Seow-Choen. *Fiber and Colorectal Diseases: Separating Fact from Fiction.* World Journal of Gastroenterology: WJG **13**, no. 31 (2007): 4161.

Tiemersma, Edine W, Dorien W Voskuil, Annelies Bunschoten, Elbert A Hogendoorn, Ben JM Witteman, Fokko M Nagengast, HansRuedi Glatt, Frans J Kok, and Ellen Kampman. *Risk of Colorectal Adenomas in Relation to Meat Consumption, Meat Preparation, and Genetic Susceptibility in a Dutch Population.* Cancer Causes & Control **15**, no. 3 (2004): 225-36.

Wood, Richard J, Maria Luz Fernandez, Matthew J Sharman, Ricardo Silvestre, Christine M Greene, Tosca L Zern, Sudeep Shrestha, Daniel A Judelson, Ana L Gomez, and William J Kraemer. *Effects of a Carbohydrate-Restricted Diet with and without Supplemental Soluble Fiber on Plasma Low-Density Lipoprotein Cholesterol and Other Clinical Markers of Cardiovascular Risk.* Metabolism **56**, no. 1 (2007): 58-67.

Wright, SH, WJ Snape Jr, W Battle, S Cohen, and RL London. *Effect of Dietary Components on Gastrocolonic Response.* American Journal of Physiology-Gastrointestinal and Liver Physiology **238**, no. 3 (1980): G228-G32.

Yang, Jing, Hai-Peng Wang, Li Zhou, and Chun-Fang Xu. *Effect of Dietary Fiber on Constipation: A Meta Analysis.* World Journal of Gastroenterology: WJG **18**, no. 48 (2012): 7378.

CHAPTER 7: VITAMIN C AND THE FRUITLESS DIET

Page	Para	
101	1	Chen, M.S., et al. *Hyperglycemia-induced intracellular depletion of ascorbic acid in human mononuclear leukocytes.* Diabetes, 1983. **32**(11): p. 1078-1081.
101	1	Chen, Y.-H., et al. *High glucose impairs early and late endothelial progenitor cells by modifying nitric oxide–related but not oxidative stress–mediated mechanisms.* Diabetes, 2007. **56**(6): p. 1559-1568.
101	1	Price, K., C. Price, and R. Reynolds, *Hyperglycemia-induced latent scurvy and atherosclerosis: the scorbutic-metaplasia hypothesis.* Medical hypotheses, 1996. **46**(2): p. 119-129.
101	1	Kc, S., J.M. Cárcamo, and D.W. Golde, *Vitamin C enters mitochondria via facilitative glucose transporter 1 (Glut1) and confers mitochondrial protection against oxidative injury.* The FASEB journal, 2005. **19**(12): p. 1657-1667.
101	1	Agus, D.B., et al., *Vitamin C crosses the blood-brain barrier in the oxidized form through the glucose transporters.* The Journal of clinical investigation, 1997. **100**(11): p. 2842-2848.
101	2	Cunningham, J.J., *Altered vitamin C transport in diabetes mellitus.* Medical hypotheses, 1988. **26**(4): p. 263-265.
101	2	Cunningham, J.J., et al. *Reduced mononuclear leukocyte ascorbic acid content in adults with insulin-dependent diabetes mellitus consuming adequate dietary vitamin C.* Metabolism, 1991. **40**(2): p. 146-149.
101	2	Padayatty, S.J. and M. Levine, *Vitamin C: the known and the unknown and Goldilocks.* Oral diseases, 2016. **22**(6): p. 463-493.

101 5 Raizman, N., *Scurvy: How a surgeon, a mariner, and a gentleman solved the greatest medical mystery of the age of sail.* The Journal of clinical investigation, 2004. **114**(12): p. 1690-1690.

101 5 Voegtlin, W.L., *The stone age diet* . 1975: Vantage Press NY.

102 3 Price, W.A. and T. Nguyen, *Nutrition and physical degeneration: a comparison of primitive and modern diets and their effects* . 2016: EnCognitive. com.

102 3 Stefansson, V., *The fat of the land* . 2016: Youcanprint.

102 4 Smith-Warner, S.A., et al. I*ntake of fruits and vegetables and risk of breast cancer: a pooled analysis of cohort studies.* JAMA, 2001. **285**(6): p. 769-776.

104 3 Thakur, A., V. Sharma, and A. Thakur, *An overview of anti-nutritional factors in food.* Int. J. Chem. Stud, 2019. **7**(1): p. 2472-2479.

104 3 Dang, L. and E.J. Van Damme, *Toxic proteins in plants.* Phytochemistry, 2015. **117**: p. 51-64.

109 1 Clemens, Z., *Vitamin C and disease: insights from the evolutionary perspective.* Journal of Evolution and Health: A joint publication of the Ancestral Health Society and the Society for Evolutionary Medicine and Health, 2013. **1**(1).

109 2 Organization, W.H., *Fruit and vegetables for health: report of the Joint FAO.* 2005.

109 3 O'Dea, K., et al. *Lifestyle change and nutritional status in Kimberley Aborigines. Australian Aboriginal Studies.* 1987(1): p. 46.

Further references

Abt, A.F., S. Von Schuching, and T. ENNS. *Vitamin C Requirements of Man Re-examined: New Values Based on Previously Unrecognized Exhalatory Excretory Pathway of Ascorbic Acid.* The American journal of clinical nutrition, 1963. **12**(1): p. 21-29.

Alissa, E.M. and G.A. Ferns. *Dietary fruits and vegetables and cardiovascular diseases risk.* Critical reviews in food science and nutrition, 2017. **57**(9): p. 1950-1962.

Ashor, A.W., et al. *Limited evidence for a beneficial effect of vitamin C supplementation on biomarkers of cardiovascular diseases: an umbrella review of systematic reviews and meta-analyses.* Nutrition Research, 2019. 61: p. 1-12.

Bates, CJ and H Heseker. *Human Bioavailability of Vitamins: Members of Ec Flair Concerted Action No. 10: 'Measurement of Micronutrient Apsorption and Status'.* Nutr Res Rev **7**, no. 1 (1994): 93-127.

Bjelakovic, G. and C. Gluud. *Surviving antioxidant supplements* . 2007, Oxford University Press.

British Nutrition Foundation. Nutrition Requirements. 2019; Available from: https://www.nutrition.org.uk/attachments/article/261/Nutrition%20Requirements_Revised%20August%202019.pdf.

Burr, M.L., et al. *Lack of benefit of dietary advice to men with angina: results of a controlled trial.* European journal of clinical nutrition, 2003. **57**(2): p. 193-200.

Cunningham, J.J., *The glucose/insulin system and vitamin C: implications in insulin-dependent diabetes mellitus.* Journal of the American college of nutrition, 1998. **17**(2): p. 105-108.

Cutler, R.G., *Urate and ascorbate: their possible roles as antioxidants in determining longevity of mammalian species*. Archives of gerontology and geriatrics, 1984. **3**(4): p. 321-348.

de Pee, Saskia, Clive E West, Joseph GAJ Hautvast, and D Karyadi. *Lack of Improvement in Vitamin a Status with Increased Consumption of Dark-Green Leafy Vegetables*. The Lancet **346**, no. 8967 (1995): 75-81.

Fadupin, G., A. Akpoghor, and K. Okunade, *A comparative study of serum ascorbic acid level in people with and without type 2 diabetes in Ibadan, Nigeria.* African Journal of Medicine and Medical Sciences, 2007. **36**(4): p. 335-339.

Fediuk, K., *Vitamin C in the Inuit diet: past and present* . 2000, McGill University.

Fritz, H., et al. *Intravenous vitamin C and cancer: a systematic review.* Integrative cancer therapies, 2014. 13(4): p. 280-300.

Gauer, J.S., et al. *Differential patterns of inhibition of the sugar transporters GLUT2, GLUT5 and GLUT7 by flavonoids*. Biochemical pharmacology, 2018. **152**: p. 11-20.

Giunta, J.L., *Dental erosion resulting from chewable vitamin C tablets*. J Am Dent Assoc, 1983. **107**(2): p. 253-6.

Gomez-Cabrera, M.-C., et al. *Oral administration of vitamin C decreases muscle mitochondrial biogenesis and hampers training-induced adaptations in endurance performance.* The American journal of clinical nutrition, 2008. **87**(1): p. 142-149.

Halliwell, B. and J.M. Gutteridge, *The antioxidants of human extracellular fluids*. Archives of biochemistry and biophysics, 1990. **280**(1): p. 1-8.

Halliwell, B., *Commentary: vitamin C: antioxidant or pro-oxidant in vivo?* Free radical research, 1996. **25**(5): p. 439-454.

Halliwell, B., *Reactive species and antioxidants. Redox biology is a fundamental theme of aerobic life.* Plant physiology, 2006. **141**(2): p. 312-322.

Harvard Health Publishing. 10 superfoods to boost a healthy diet. 2018; Available from: https://www.health.harvard.edu/blog/10-superfoods-to-boost-a-healthy-diet-2018082914463.

Hatch, M., et al. *Effect of megadoses of ascorbic acid on serum and urinary oxalate.* European urology, 1980. **6**: p. 166-169.

Hodges, R.E., et al. *Clinical manifestations of ascorbic acid deficiency in man.* The American journal of clinical nutrition, 1971. **24**(4): p. 432-443.

Kc, S., J.M. Cárcamo, and D.W. Golde, *Vitamin C enters mitochondria via facilitative glucose transporter 1 (Glut1) and confers mitochondrial protection against oxidative injury.* The FASEB journal, 2005. **19**(12): p. 1657-1667.

Krebs, H., *The Sheffield experiment on the vitamin C requirement of human adults*. Proceedings of the Nutrition Society, 1953. **12**(3): p. 237-246.

Krebs, J.D., et al. *Improvements in glucose metabolism and insulin sensitivity with a low-carbohydrate diet in obese patients with type 2 diabetes*. Journal of the American College of Nutrition, 2013. **32**(1): p. 11-17.

Lee, S.H., T. Oe, and I.A. Blair, *Vitamin C-induced decomposition of lipid hydroperoxides to endogenous genotoxins*. Science, 2001. **292**(5524): p. 2083-2086.

Metz, J., U. Hundertmark, and I. Pevny, *Vitamin C allergy of the delayed type.* Contact Dermatitis, 1980. **6**(3): p. 172-4.

Montel-Hagen, A., et al. *Erythrocyte Glut1 triggers dehydroascorbic acid uptake in mammals unable to synthesize vitamin C.* Cell, 2008. **132**(6): p. 1039-1048.

Monti, D.A., et al. *Phase I evaluation of intravenous ascorbic acid in combination with gemcitabine and erlotinib in patients with metastatic pancreatic cancer* . PLOS One, 2012. **7**(1).

Nobile S. , W.J.M., *Vitamin C: the mysterious redox-system a trigger of life?* 1981, Boston, USA: MTP Press.

Nutritics, R., *Edition (v5. 031)[Computer software]. Dublin* . 2017.

Padayatty, S.J., et al. *Vitamin C as an antioxidant: evaluation of its role in disease prevention. J*ournal of the American college of Nutrition, 2003. **22**(1): p. 18-35.

Panel on Dietary Antioxidants and Related Compounds, et al. *Dietary reference intakes for vitamin C, vitamin E, selenium, and carotenoids.* 2000, National Academy Press Washington, DC.

Pavey, K.D., et al. *Vitamin C induced decomposition of lipid hydroperoxides: direct evidence of genotoxin–DNA binding detected by QCRS.* Chemical Communications, 2001(18): p. 1886-1887.

Podmore, I.D., et al. *Vitamin C exhibits pro-oxidant properties.* Nature, 1998. **392**(6676): p. 559-559.

Rivas, C.I., et al. *Vitamin C transporters.* J Physiol Biochem, 2008. **64**(4): p. 357-75.

Roe, M., et al. *McCance and Widdowson's The Composition of Foods Seventh Summary Edition and updated Composition of Foods Integrated Dataset.* Nutrition bulletin, 2015. 40(1): p. 36-39.

Sauberlich, HE. *Bioavailability of Vitamins.* Progress in Food and Nutrition Science **9**, no. 1-2 (1985): 1-33.

Schrauzer, G., D. Ishmael, and G. Kiefer, *Some aspects of current vitamin C usage: Diminished high-altitude resistance following overdosage.* Annals of the New York Academy of Sciences, 1975. **258**(1): p. 377-381.

Sinclair, A., et al. *Low plasma ascorbate levels in patients with type 2 diabetes mellitus consuming adequate dietary vitamin C.* Diabetic medicine, 1994. **11**(9): p. 893-898.

Song, J., et al. *Flavonoid inhibition of sodium-dependent vitamin C transporter 1 (SVCT1) and glucose transporter isoform 2 (GLUT2), intestinal transporters for vitamin C and glucose.* Journal of Biological Chemistry, 2002. **277**(18): p. 15252-15260.

Stirpe, F., M. Comporti, and G. Caprino, *Adaptive regulation of ascorbic acid synthesis in rat-liver extracts. Effect of x-irradiation and of dietary changes.* Biochemical Journal, 1963. **86**(2): p. 232.

Willers, J., et al. *Vitamin intake from food supplements in a German cohort-Is there a risk of excessive intake.* Int J Vitam Nutr Res, 2014. **84**(3-4): p. 152-162.

Willmott, N. and R. Bryan, *Scurvy in child with epilepsy on a ketogenic diet with oral complications.* European Archives of Paediatric Dentistry, 2008. **9**(3): p. 148-152.

113 2 Miller, V.J., F.A. Villamena, and J.S. Volek, *Nutritional Ketosis and Mitohormesis: Potential Implications for Mitochondrial Function and Human Health.* J Nutr Metab, 2018. **2018**: p. 5157645.

114 1 Bellanti, F., et al., A multiphase very-low calorie ketogenic diet improves serum redox balance by reducing oxidative status in obese patients. Free Radical Biology and Medicine, 2024. 223: p. 109-117.

114 4 Klein, E.A., et al. *Vitamin E and the risk of prostate cancer: the Selenium and Vitamin E Cancer Prevention Trial (SELECT).* JAMA, 2011. **306**(14): p. 1549-1556.

114 4 Lin, J., et al. *Vitamins C and E and beta carotene supplementation and cancer risk: a randomized controlled trial.* Journal of the National Cancer Institute, 2009. **101**(1): p. 14-23.

115 2 Duthie, S.J., et al. *Effect of increasing fruit and vegetable intake by dietary intervention on nutritional biomarkers and attitudes to dietary change: a randomised trial.* European Journal of Nutrition, 2018. **57**(5): p. 1855-1872.

115 3 van den Berg, R., et al. *A vegetable/fruit concentrate with high antioxidant capacity has no effect on biomarkers of antioxidant status in male smokers.* The Journal of Nutrition, 2001. **131**(6): p. 1714-1722.

115 4 Hodgson, J.M., et al. Regular ingestion of tea does not inhibit in vivo lipid peroxidation in humans. The Journal of Nutrition, 2002. 132(1): p. 55-58.

118 3 Murray, M.J., et al. *The adverse effect of iron repletion on the course of certain infections.* Br Med J, 1978. **2**(6145): p. 1113-1115.

118 3 Paterson, C., *Vitamin-D poisoning: survey of causes in 21 patients with hypercalcaemia.* The Lancet, 1980. **315**(8179): p. 1164-1165.

118 3 Sazawal, S., et al. *Effects of routine prophylactic supplementation with iron and folic acid on admission to hospital and mortality in preschool children in a high malaria transmission setting: community-based, randomised, placebo-controlled trial.* The Lancet, 2006. **367**(9505): p. 133-143.

119 3 Autier, P., et al. *Vitamin D status and ill health: a systematic review.* The Lancet Diabetes & Endocrinology, 2014. **2**(1): p. 76-89.

119 3 Harvey, N.C. and C. Cooper, *Vitamin D: some perspective please* . 2012, British Medical Journal Publishing Group.

119 3 Lippi, G. and G. Targher, *Are we overrating the extra-skeletal benefits of oral vitamin D supplementation?* Annals of Translational Medicine, 2019. **7**(18).

119 3 Manson, J.E., et al. *Vitamin D supplements and prevention of cancer and cardiovascular disease.* New England Journal of Medicine, 2019. **380**(1): p. 33-44.

119 5 Fohner, A.E., et al. *Genetics, diet, and season are associated with serum 25-hydroxycholecalciferol concentration in a Yup'ik study population from Southwestern Alaska.* The Journal of Nutrition, 2016. **146**(2): p. 318-325.

119 5 Kuhnlein, H.V. and O. Receveur, *Local cultural animal food contributes high levels of nutrients for Arctic Canadian Indigenous adults and children.* The Journal of Nutrition, 2007. **137**(4): p. 1110-1114.

119 5 Kuhnlein, H.V., et al. *Vitamins A, D, and E in Canadian Arctic traditional food and adult diets.* Journal of Food Composition and Analysis, 2006. **19**(6-7): p. 495-506.

119 5 Moore, C., et al. *Vitamin D intake in the United States.* Journal of the American Dietetic Association, 2004. **104**(6): p. 980-983.

119 5 Ramnemark, A., et al. *Adequate vitamin D levels in a Swedish population living above latitude 63 N: the 2009 Northern Sweden MONICA study.* International Journal of Circumpolar Health, 2015. **74**(1): p. 27963.

120 2 Fiorentini, D., et al. *Magnesium: Biochemistry, Nutrition, Detection, and Social Impact of Diseases Linked to Its Deficiency.* Nutrients, 2021. **13**(4): p. 1136.

120 2 Uwitonze, A.M. and M.S. Razzaque, *Role of magnesium in vitamin D activation and function.* Journal of Osteopathic Medicine, 2018. **118**(3): p. 181-189.

120 3 Ferland, G., *The discovery of vitamin K and its clinical applications.* Annals of Nutrition and Metabolism, 2012. **61**(3): p. 213-218.

120 3 Schurgers, L.J., E.C. Cranenburg, and C. Vermeer. *Matrix Gla-protein: the calcification inhibitor in need of vitamin K.* Thrombosis and Haemostasis, 2008. **100**(10): p. 593-603.

121 2 Chen, L., et al. *Hyperglycemia inhibits the uptake of dehydroascorbate in tubular epithelial cell.* American Journal of Nephrology, 2005. **25**(5): p. 459-465.

121 2 Djurhuus, M., et al. *Insulin increases renal magnesium excretion: a possible cause of magnesium depletion in hyperinsulinaemic states.* Diabetic Medicine, 1995. **12**(8): p. 664-669.

121 2 Kasim-Karakas, S.E., et al. *Responses of inflammatory markers to a low-fat, high-carbohydrate diet: effects of energy intake.* The American Journal of Clinical Nutrition, 2006. **83**(4): p. 774-779.

121 2 Kc, S., J.M. Cárcamo, and D.W. Golde, *Vitamin C enters mitochondria via facilitative glucose transporter 1 (Glut1) and confers mitochondrial protection against oxidative injury.* The FASEB Journal, 2005. **19**(12): p. 1657-1667.

121 2 Lemann, J., et al. *Evidence that glucose ingestion inhibits net renal tubular reabsorption of calcium and magnesium in man.* The Journal of Laboratory and Clinical Medicine, 1970. **75**(4): p. 578-585.

121 2 Mohanty, P., et al. *Glucose challenge stimulates reactive oxygen species (ROS) generation by leucocytes.* The Journal of Clinical Endocrinology and Metabolism, 2000. **85**(8): p. 2970-2973.

121 2 Raygan, F., et al. *Comparative effects of carbohydrate versus fat restriction on metabolic profiles, biomarkers of inflammation and oxidative stress in overweight patients with Type 2 diabetic and coronary heart disease: A randomized clinical trial.* ARYA atherosclerosis, 2016. **12**(6): p. 266.

121 3 Nazarewicz, R.R., et al. *Effect of short-term ketogenic diet on redox status of human blood.* Rejuvenation Research, 2007. **10**(4): p. 435-440.

Further references

Berger, RG, S Lunkenbein, A Ströhle, and A Hahn. *Antioxidants in Food: Mere Myth or Magic Medicine?* Crit Rev Food Sci Nutr **52**, no. 2 (2012): 162-71.

Binns, C.W., M.K. Lee, and A.H. Lee, *Problems and prospects: public health regulation of dietary supplements.* Annual Review of Public Health, 2018. **39**: p. 403-420.

Bjelakovic, Goran and Christian Gluud. *Surviving Antioxidant Supplements* . Oxford University Press, 2007.

Burt, L.A., et al. *Effect of high-dose vitamin D supplementation on volumetric bone density and bone strength: a randomized clinical trial.* JAMA, 2019. **322**(8): p. 736-745.

Chang, Yoon Jung, Seung-Kwon Myung, Sung Tae Chung, Yeol Kim, Eun-Hyun Lee, Young-Jee Jeon, Chang-Hae Park, Hong Gwan Seo, and Bong Yul Huh. *Effects of Vitamin Treatment or Supplements with Purported Antioxidant Properties on Skin Cancer Prevention: A Meta-Analysis of Randomized Controlled Trials*. Dermatology **223**, no. 1 (2011): 36-44.

Chio, Iok In Christine and David A Tuveson. *Ros in Cancer: The Burning Question.* Trends in Molecular Medicine **23**, no. 5 (2017): 411-29.

Cook, N.R., et al. *A randomized factorial trial of vitamins C and E and beta carotene in the secondary prevention of cardiovascular events in women: results from the Women's Antioxidant Cardiovascular Study.* Archives of Internal Medicine, 2007. **167**(15): p. 1610-1618.

Crowe, Francesca L, Marinka Steur, Naomi E Allen, Paul N Appleby, Ruth C Travis, and Timothy J Key. *Plasma Concentrations of 25-Hydroxyvitamin D in Meat Eaters, Fish Eaters, Vegetarians and Vegans: Results from the Epic–Oxford Study.* Public Health Nutrition **14**, no. 2 (2011): 340-46.

D'Cunha, Nathan M, Ekavi N Georgousopoulou, Lakshika Dadigamuwage, Jane Kellett, Demosthenes B Panagiotakos, Jackson Thomas, Andrew J McKune, Duane D Mellor, and Nenad Naumovski. *Effect of Long-Term Nutraceutical and Dietary Supplement Use on Cognition in the Elderly: A 10-Year Systematic Review of Randomised Controlled Trials*. British Journal of Nutrition **119**, no. 3 (2018): 280-98.

Dang, Liuyi and Els JM Van Damme. *Toxic Proteins in Plants*. Phytochemistry **117** (2015): 51-64.

Derbyshire, E., *Could we be overlooking a potential choline crisis in the United Kingdom?* BMJ Nutrition, Prevention & Health, 2019.

DiNicolantonio, J.J., J.H. O'Keefe, and W. Wilson, *Subclinical magnesium deficiency: a principal driver of cardiovascular disease and a public health crisis*. Open Heart, 2018. **5**(1): p. e000668.

Droge, Wulf. *Free Radicals in the Physiological Control of Cell Function.* Physiological Reviews **82**, no. 1 (2002): 47-95.

Dunnill, C., et al. *Reactive oxygen species (ROS) and wound healing: the functional role of ROS and emerging ROS-modulating technologies for augmentation of the healing process*. International Wound Journal, 2017. **14**(1): p. 89-96.

Fernando, Wasundara, HP Vasantha Rupasinghe, and David W Hoskin. *Dietary Phytochemicals with Anti-Oxidant and Pro-Oxidant Activities: A Double-Edged Sword in Relation to Adjuvant Chemotherapy and Radiotherapy?* Cancer Letters (2019).

Fisher-Wellman, Kelsey and Richard J Bloomer. *Acute Exercise and Oxidative Stress: A 30 Year History.* Dynamic Medicine **8**, no. 1 (2009): 1.

Galior, K., S. Grebe, and R. Singh, *Development of vitamin D toxicity from overcorrection of vitamin D deficiency: a review of case reports*. Nutrients, 2018. **10**(8): p. 953.

Gama, R., et al. *Hypovitaminosis D and disease: consequence rather than cause?* BMJ, 2012. **345**: p. e5706.

Ghavami, Abdollah, W Andy Coward, and Les JC Bluck. *The Effect of Food Preparation on the Bioavailability of Carotenoids from Carrots Using Intrinsic Labelling.* British Journal of Nutrition **107**, no. 9 (2012): 1350-66.

Gladyshev, Vadim N. *The Free Radical Theory of Aging Is Dead. Long Live the Damage Theory!* Antioxidants and Redox Signaling **20**, no. 4 (2014): 727-31.

Greenberg, E Robert, John A Baron, Tor D Tosteson, Daniel H Freeman Jr, Gerald J Beck, John H Bond, Thomas A Colacchio, John A Coller, Harold D Frankl, and Robert W Haile. *A Clinical Trial of Antioxidant Vitamins to Prevent Colorectal Adenoma.* New England Journal of Medicine **331**, no. 3 (1994): 141-47.

Greenberg, E.R., et al. *A clinical trial of antioxidant vitamins to prevent colorectal adenoma.* New England journal of medicine, 1994. **331**(3): p. 141-147.

Group, Alpha-Tocopherol Beta Carotene Cancer Prevention Study. *The Effect of Vitamin E and Beta Carotene on the Incidence of Lung Cancer and Other Cancers in Male Smokers.* New England Journal of Medicine **330**, no. 15 (1994): 1029-35.

Gundry, Steven R and Christopher Solimene. *The Plant Paradox*. HarperCollins, 2017.

Harvard Health Publishing. 10 superfoods to boost a healthy diet. 2018; Available from: https://www.health.harvard.edu/blog/10-superfoods-to-boost-a-healthy-diet-2018082914463.

Hodgson, J.M., et al. *Isoflavonoids do not inhibit in vivo lipid peroxidation in subjects with high-normal blood pressure.* Atherosclerosis, 1999. **145**(1): p. 167-172.

Holick, M.F., *Vitamin D status: measurement, interpretation, and clinical application.* Annals of Epidemiology, 2009. **19**(2): p. 73-78.

Holmes, R.P. and F.A. Kummerow, *The relationship of adequate and excessive intake of vitamin D to health and disease.* Journal of the American College of Nutrition, 1983. **2**(2): p. 173-199.

Hossein-nezhad, A. and M.F. Holick, *Optimize dietary intake of vitamin D: an epigenetic perspective.* Current Opinion in Clinical Nutrition & Metabolic Care, 2012. **15**(6): p. 567-579.

Hossein-nezhad, A. and M.F. Holick. *Vitamin D for health: a global perspective*. in *Mayo clinic proceedings* . 2013. Elsevier.

https://news.cancerresearchuk.org/2009/06/24/what-are-antioxidants-and-are-they-good-for-us-part-1/

https://news.cancerresearchuk.org/2009/06/25/what-are-antioxidants-and-are-they-good-for-us-part-2/

https://www.ars.usda.gov/news-events/news/research-news/1999/high-orac-foods-may-slow-aging/

Jiang, Lei, Ke-hu Yang, Jin-hui Tian, Quan-lin Guan, Nan Yao, Nong Cao, Deng-hai Mi, Jie Wu, Bin Ma, and Sun-hu Yang. *Efficacy of Antioxidant Vitamins and Selenium Supplement in Prostate Cancer Prevention: A Meta-Analysis of Randomized Controlled Trials.* Nutrition and Cancer **62**, no. 6 (2010): 719-27.

Kincaid, B. and E. Bossy-Wetzel, *Forever young: SIRT3 a shield against mitochondrial meltdown, aging, and neurodegeneration.* Frontiers in Aging Neuroscience, 2013. **5**: p. 48.

Kozlov, A., et al. *Vitamin D status of northern indigenous people of Russia leading traditional and modernized way of life.* International Journal of Circumpolar Health, 2014. **73**(1): p. 26038.

Leung, W., et al. *Two common single nucleotide polymorphisms in the gene encoding β-carotene 15, 15'-monoxygenase alter β-carotene metabolism in female volunteers.* The FASEB Journal, 2009. **23**(4): p. 1041-1053.

Lin, Jennifer, Nancy R Cook, Christine Albert, Elaine Zaharris, J Michael Gaziano, Martin Van Denburgh, Julie E Buring, and JoAnn E Manson. *Vitamins C and E and Beta Carotene Supplementation and Cancer Risk: A Randomized Controlled Trial.* Journal of the National Cancer Institute **101**, no. 1 (2009): 14-23.

Loginova, M., et al. Double-Edged Sword of Vitamin D3 Effects on Primary Neuronal Cultures in Hypoxic States. International Journal of Molecular Sciences, 2021. 22(11): p. 5417.

Louw, J.A., et al. *Blood vitamin concentrations during the acute-phase response.* Critical Care Medicine, 1992. **20**(7): p. 934-941.

McCormick, Donald B. *Vitamin/Mineral Supplements: Of Questionable Benefit for the General Population.* Nutrition Reviews **68**, no. 4 (2010): 207-13.

Møller, P., et al. *No effect of 600 grams fruit and vegetables per day on oxidative DNA damage and repair in healthy nonsmokers.* Cancer Epidemiology and Prevention Biomarkers, 2003. **12**(10): p. 1016-1022.

Møller, Peter, Ulla Vogel, Anette Pedersen, Lars O Dragsted, Brittmarie Sandström, and Steffen Loft. *No Effect of 600 Grams Fruit and Vegetables Per Day on Oxidative DNA Damage and Repair in Healthy Nonsmokers.* Cancer Epidemiology and Prevention Biomarkers **12**, no. 10 (2003): 1016-22.

Myung, Seung-Kwon, Woong Ju, Belong Cho, Seung-Won Oh, Sang Min Park, Bon-Kwon Koo, and Byung-Joo Park. *Efficacy of Vitamin and Antioxidant Supplements in Prevention of Cardiovascular Disease: Systematic Review and Meta-Analysis of Randomised Controlled Trials.* BMJ **346** (2013): f10.

Oliero, Manon, Annie Calvé, Gabriela Fragoso, Thibault Cuisiniere, Roy Hajjar, Ulrich Dobrindt, and Manuela M Santos. *Inulin and Galacto-Oligosaccharides Increase the Genotoxic Effect of Colibactin Produced by Pks+ Escherichia Coli Strains.* (2020).

Omenn, G.S., et al. *Effects of a combination of beta carotene and vitamin A on lung cancer and cardiovascular disease.* New England Journal of Medicine, 1996. **334**(18): p. 1150-1155.

Ostojic, S.M., et al. *What do over-trained athletes and patients with neurodegenerative diseases have in common? Mitochondrial dysfunction.* Experimental Biology and Medicine, 2021: p. 1535370221990619.

Pais, RALUCA and DL Dumitraşcu. *Do Antioxidants Prevent Colorectal Cancer? A Meta-Analysis.* Romanian Journal of Internal Medicine (Revue Rumaine de Medecine Interne) **51**, no. 3-4 (2013): 152-63.

Pasricha, S.-R., et al. *Control of iron deficiency anemia in low-and middle-income countries.* Blood, 2013. **121**(14): p. 2607-2617.

Patrignani, P., et al. *Effects of vitamin E supplementation on F2-isoprostane and thromboxane biosynthesis in healthy cigarette smokers.* Circulation, 2000. **102**(5): p. 539-545.

Peluso, Ilaria, Anna Raguzzini, Giovina Catasta, Vittoria Cammisotto, Anna Perrone, Carlo Tomino, Elisabetta Toti, and Mauro Serafini. *Effects of High Consumption of Vegetables on Clinical, Immunological, and Antioxidant Markers in Subjects at Risk of Cardiovascular Diseases*. Oxidative Medicine and Cellular Longevity **2018** (2018).

Phillips, Michelle, Caroline Childs, Philip Calder, and Peter Rogers. *No Effect of Omega-3 Fatty Acid Supplementation on Cognition and Mood in Individuals with Cognitive Impairment and Probable Alzheimer's Disease: A Randomised Controlled Trial.* International Journal of Molecular Sciences **16**, no. 10 (2015): 24600-13.

Plourde, M. and S. C. Cunnane. Extremely Limited Synthesis of Long Chain Polyunsaturates in Adults: Implications for Their Dietary Essentiality and Use as Supplements. Appl Physiol Nutr Metab 32, no. 4 (Aug 2007): 619-34. http://dx.doi.org/10.1139/h07-034.

Rautalahti, M.T., et al. *The effects of supplementation with α-tocopherol and β-carotene on the incidence and mortality of carcinoma of the pancreas in a randomized, controlled trial.* Cancer: Interdisciplinary International Journal of the American Cancer Society, 1999. **86**(1): p. 37-42.

Reddy, P. and L.R. Edwards, *Magnesium supplementation in vitamin D deficiency.* American Journal of Therapeutics, 2019. **26**(1): p. e124-e132.

Reid, D., et al. *The relation between acute changes in the systemic inflammatory response and plasma 25-hydroxyvitamin D concentrations after elective knee arthroplasty.* The American Journal of Clinical Nutrition, 2011. **93**(5): p. 1006-1011.

Ristow, M. and K. Schmeisser, *Mitohormesis: promoting health and lifespan by increased levels of reactive oxygen species (ROS).* Dose-Response, 2014. **12**(2): p. dose-response. 13-035. Ristow.

Ristow, M. and S. Schmeisser, *Extending life span by increasing oxidative stress*. Free Radical Biology and Medicine, 2011. **51**(2): p. 327-336.

Ristow, M., et al. *Antioxidants prevent health-promoting effects of physical exercise in humans*. Proceedings of the National Academy of Sciences of the United States of America, 2009.

Ross, A.C., et al. *The 2011 report on dietary reference intakes for calcium and vitamin D from the Institute of Medicine: what clinicians need to know.* The Journal of Clinical Endocrinology & Metabolism, 2011. **96**(1): p. 53-58.

Salehi, B., et al. *Antioxidants: positive or negative actors?* Biomolecules, 2018. **8**(4): p. 124.

Sanders, Kerrie M, Amanda L Stuart, Elizabeth J Williamson, Julie A Simpson, Mark A Kotowicz, Doris Young, and Geoffrey C Nicholson. *Annual High-Dose Oral Vitamin D and Falls and Fractures in Older Women: A Randomized Controlled Trial.* JAMA **303**, no. 18 (2010): 1815-22.

Sanders, Kerrie M, Geoffrey C Nicholson, and Peter R Ebeling. *Is High Dose Vitamin D Harmful?* Calcified Tissue International **92**, no. 2 (2013): 191-206.

Thompson, J.C., et al. *Origins of the human predatory pattern: The transition to large-animal exploitation by early hominins*. Current Anthropology, 2019. **60**(1): p. 1-23.

van den Berg, Robin, Trinette van Vliet, Wendy MR Broekmans, Nicole HP Cnubben, Wouter HJ Vaes, Len Roza, Guido RMM Haenen, Aalt Bast, and Henk van den Berg. *A Vegetable/Fruit Concentrate with High Antioxidant Capacity Has No Effect on Biomarkers of Antioxidant Status in Male Smokers*. J Nutr **131**, no. 6 (2001): 1714-22.

Young, J.F., et al. *Green tea extract only affects markers of oxidative status postprandially: lasting antioxidant effect of flavonoid-free diet.* British Journal of Nutrition, 2002. **87**(4): p. 343-355.

Yun, J. and T. Finkel, *Mitohormesis*. Cell Metabolism, 2014. **19**(5): p. 757-766.

Zeisel, S.H. and K.-A. Da Costa, *Choline: an essential nutrient for public health.* Nutrition Reviews, 2009. **67**(11): p. 615-623.

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Page	Para	
124	3	Blatter, D.D., et al., *Quantitative volumetric analysis of brain MR: normative database spanning 5 decades of life.* American journal of Neuroradiology, 1995. **16**(2): p. 241-251.
124	3	Cauley, K., Y. Hu, and S. Fielden, *Aging and the brain: a quantitative study of clinical CT images*. American Journal of Neuroradiology, 2020. **41**(5): p. 809-814.
124	4	Enzinger, C., et al., *Risk factors for progression of brain atrophy in aging: six-year follow-up of normal subjects*. Neurology, 2005. **64**(10): p. 1704-1711.
124	4	Vogiatzoglou, A., et al., *Vitamin B12 status and rate of brain volume loss in community-dwelling elderly.* Neurology, 2008. **71**(11): p. 826-832.
124	5	Ozyurek, H., et al., *Vitamin B12 deficiency as a treatable cause of severe brain atrophy.* Neurology Asia, 2021. **26**(1).
125	2	EVALUATION, I.F.H.M.A. The Lancet Public Health, 2022; Available from: https://www.healthdata.org/news-events/newsroom/news-releases/lancet-public-health-global-dementia-cases-set-triple-2050#:~:text=By%202050%2C%20153%20million%20people,population%20growth%20and%20population%20ageing.
125	2	Smith, A.D. and H. Refsum, *Vitamin B-12 and cognition in the elderly.* The American journal of clinical nutrition, 2008. **89**(2): p. 707S-711S.
125	2	UK, A.s.R. Dementia Statistics. 2021 [cited 2021; Available from: https://www.dementiastatistics.org/.
125	3	Cho, H.S., et al., *Suboptimal baseline serum vitamin B12 is associated with cognitive decline in people with Alzheimer's disease undergoing cholinesterase inhibitor treatment.* Frontiers in neurology, 2018. **9**: p. 325.
125	3	Douaud, G., et al., *Preventing Alzheimer's disease-related gray matter atrophy by B-vitamin treatment.* Proceedings of the National Academy of Sciences, 2013. **110**(23): p. 9523-9528.
125	3	Harrington, D.J., *Laboratory assessment of vitamin B12 status*. Journal of clinical pathology, 2017. **70**(2): p. 168-173.
125	3	Hughes, C.F. and H. McNulty, *Assessing biomarker status of vitamin B12 in the laboratory: no simple solution* . 2018, SAGE Publications Sage UK: London, England.

125 3 Jatoi, S., et al., *Low Vitamin B12 levels: An underestimated cause of minimal cognitive impairment and dementia.* Cureus, 2020. **12**(2).
125 3 Smith, A.D., et al., *Homocysteine-lowering by B vitamins slows the rate of accelerated brain atrophy in mild cognitive impairment: a randomized controlled trial.* PloS one, 2010. **5**(9): p. e12244.
125 3 Spence, J.D., *Metabolic vitamin B12 deficiency: a missed opportunity to prevent dementia and stroke.* Nutrition research, 2016. **36**(2): p. 109-116.
125 3 Wolffenbuttel, B.H., et al., *The Many Faces of Cobalamin (Vitamin B12) Deficiency.* Mayo Clinic Proceedings: Innovations, Quality & Outcomes, 2019. **3**(2): p. 200-214.
126 1 Hall, C.A., *Function of vitamin B12 in the central nervous system as revealed by congenital defects.* American journal of hematology, 1990. **34**(2): p. 121-127.
126 2 Bhate, V., et al., *Vitamin B12 status of pregnant Indian women and cognitive function in their 9-year-old children.* Food and nutrition bulletin, 2008. **29**(4): p. 249-254.
126 2 Hector, M. and J.R. Burton, *What are the psychiatric manifestations of vitamin B12 deficiency?* Journal of the American Geriatrics Society, 1988. **36**(12): p. 1105-1112.
126 2 Katsaros, V., et al., *MRI of spinal cord and brain lesions in subacute combined degeneration.* Neuroradiology, 1998. **40**(11): p. 716-719.
126 2 Köbe, T., et al., *Vitamin B-12 concentration, memory performance, and hippocampal structure in patients with mild cognitive impairment.* The American journal of clinical nutrition, 2016. **103**(4): p. 1045-1054.
126 2 Lindenbaum, J., et al., *Neuropsychiatric disorders caused by cobalamin deficiency in the absence of anemia or macrocytosis.* New England Journal of Medicine, 1988. **318**(26): p. 1720-1728.
126 2 Smith, A.D. and H. Refsum, *Homocysteine, B vitamins, and cognitive impairment.* Annual review of nutrition, 2016. **36**: p. 211-239.
126 2 Souza, A.d. and M. Moloi, *Involuntary movements due to vitamin B12 deficiency.* Neurological research, 2014. **36**(12): p. 1121-1128.
126 2 Tangney, C., et al., *Vitamin B12, cognition, and brain MRI measures: a cross-sectional examination.* Neurology, 2011. **77**(13): p. 1276-1282.
126 2 Vogiatzoglou, A., et al., *Dietary sources of vitamin B-12 and their association with plasma vitamin B-12 concentrations in the general population: the Hordaland Homocysteine Study.* The American journal of clinical nutrition, 2009. **89**(4): p. 1078-1087.
126 2 Woo, K., T. Kwok, and D. Celermajer, *Vegan diet, subnormal vitamin B-12 status and cardiovascular health.* Nutrients, 2014. **6**(8): p. 3259-3273.
126 5 Benham, A.J., et al., *Vitamin B12 Supplementation Adequacy in Australian Vegan Study Participants.* Nutrients, 2022. **14**(22): p. 4781.
126 5 Ferrara, P., et al., *Caring for infants and children following alternative dietary patterns.* The Journal of pediatrics, 2017. **187**: p. 339-340. e1.
126 5 Kadiyala, A., et al., *Prevalence of vitamin B12 deficiency among exclusively breast fed term infants in South India.* Journal of Tropical Pediatrics, 2021. **67**(1): p. fmaa114.
126 5 Lövblad, K.-O., et al., *Retardation of myelination due to dietary vitamin B 12 deficiency: cranial MRI findings.* Pediatric radiology, 1997. **27**(2): p. 155-158.
127 4 Acıpayam, C., et al., *Cerebral atrophy in 21 hypotonic infants with severe vitamin B12 deficiency.* Journal of paediatrics and child health, 2020. **56**(5): p. 751-756.

127 4 Goraya, J.S., S. Kaur, and B. Mehra, *Neurology of nutritional vitamin B12 deficiency in infants: case series from India and literature review.* Journal of Child Neurology, 2015. **30**(13): p. 1831-1837.

127 4 Taskesen, M., et al., *Cranial magnetic resonance imaging findings of nutritional vitamin B12 deficiency in 15 hypotonic infants.* european journal of paediatric neurology, 2012. **16**(3): p. 266-270.

128 1 Gharami, K., M. Das, and S. Das, *Essential role of docosahexaenoic acid towards development of a smarter brain.* Neurochemistry international, 2015. **89**: p. 51-62.

128 1 Jernerén, F., et al., *Brain atrophy in cognitively impaired elderly: the importance of long-chain ω-3 fatty acids and B vitamin status in a randomized controlled trial.* The American journal of clinical nutrition, 2015. **102**(1): p. 215-221.

128 1 Jernerén, F., et al., *Homocysteine Status Modifies the Treatment Effect of Omega-3 Fatty Acids on Cognition in a Randomized Clinical Trial in Mild to Moderate Alzheimer's Disease: The OmegAD Study.* Journal of Alzheimer's Disease, 2019(Preprint): p. 1-9.

128 1 Kaur, P. and P. Mittal, *To Study MRI Changes in Severely Anemic Children (0-3 Years).*

128 1 Molloy, A.M., et al., *Maternal vitamin B12 status and risk of neural tube defects in a population with high neural tube defect prevalence and no folic acid fortification.* Pediatrics, 2009. **123**(3): p. 917-923.

128 1 Oulhaj, A., et al., *Omega-3 fatty acid status enhances the prevention of cognitive decline by B vitamins in mild cognitive impairment.* Journal of Alzheimer's Disease, 2016. **50**(2): p. 547-557.

128 1 Zhang, Y.-P., et al., *Effects of DHA Supplementation on hippocampal volume and cognitive function in older adults with mild cognitive impairment: a 12-month randomized, double-blind, placebo-controlled trial.* Journal of Alzheimer's Disease, 2017. **55**(2): p. 497-507.

129 1 Rashid, S., V. Meier, and H. Patrick, *Review of Vitamin B12 deficiency in pregnancy: a diagnosis not to miss as veganism and vegetarianism become more prevalent.* European Journal of Haematology, 2021. **106**(4): p. 450-455.

129 2 Black, M.M., *Micronutrient deficiencies and cognitive functioning.* The Journal of nutrition, 2003. **133**(11): p. 3927S-3931S.

129 2 Louwman, M.W., et al., *Signs of impaired cognitive function in adolescents with marginal cobalamin status.* The American journal of clinical nutrition, 2000. **72**(3): p. 762-769.

129 2 Obeid, R., et al., *Cobalamin status from pregnancy to early childhood: lessons from global experience.* Advances in nutrition, 2017. **8**(6): p. 971-979.

130 1 Gilsing, A.M., et al., *Serum concentrations of vitamin B12 and folate in British male*
132 1 *omnivores, vegetarians and vegans: results from a cross-sectional analysis of the EPIC-Oxford cohort study.* European journal of clinical nutrition, 2010. **64**(9): p. 933.

130 1 Herrmann, W., et al., *Vitamin B-12 status, particularly holotranscobalamin II and methylmalonic acid concentrations, and hyperhomocysteinemia in vegetarians.* Am J Clin Nutr, 2003. **78**(1): p. 131-6.

130 1 Mann, N., et al., *The effect of diet on plasma homocysteine concentrations in healthy male subjects.* European journal of clinical nutrition, 1999. **53**(11): p. 895.

130 1 Pawlak, R., S. Lester, and T. Babatunde, *The prevalence of cobalamin deficiency among vegetarians assessed by serum vitamin B12: a review of literature.* European journal of clinical nutrition, 2014. **68**(5): p. 541.

130 1 Vogiatzoglou, A., et al., *Vitamin B12 status and rate of brain volume loss in community-dwelling elderly.* Neurology, 2008. **71**(11): p. 826-832.

130 1 Vogiatzoglou, A., et al., *Dietary sources of vitamin B-12 and their association with plasma vitamin B-12 concentrations in the general population: the Hordaland Homocysteine Study.* The American journal of clinical nutrition, 2009. **89**(4): p. 1078-1087.

130 2 den Heijer, T., et al., *Homocysteine and brain atrophy on MRI of non-demented elderly.* Brain, 2002. **126**(1): p. 170-175.

130 2 Hooshmand, B., et al., *Association of vitamin B12, folate, and sulfur amino acids with brain magnetic resonance imaging measures in older adults: a longitudinal population-based study.* JAMA psychiatry, 2016. **73**(6): p. 606-613.

130 2 Hooshmand, B., *The impact of homocysteine and B vitamins on Alzheimer's disease, cognitive performance and structural brain changes* . 2013: Inst för neurobiologi, vårdvetenskap och samhälle/Dept of Neurobiology, Care

130 2 Hvas, A.-M., et al., *No effect of vitamin B-12 treatment on cognitive function and depression: a randomized placebo controlled study.* Journal of Affective Disorders, 2004. **81**(3): p. 269-273.

130 2 Hvas, A.-M., J. Ellegaard, and E. Nexø, *Vitamin B12 treatment normalizes metabolic markers but has limited clinical effect: a randomized placebo-controlled study.* Clinical chemistry, 2001. **47**(8): p. 1396-1404.

130 2 Miles, L.M., et al., *Impact of baseline vitamin B12 status on the effect of vitamin B12 supplementation on neurologic function in older people: secondary analysis of data from the OPEN randomised controlled trial.* Eur J Clin Nutr, 2017. **71**(10): p. 1166-1172.

130 2 van der Zwaluw, N.L., et al., *Results of 2-year vitamin B treatment on cognitive performance: secondary data from an RCT.* Neurology, 2014. **83**(23): p. 2158-2166.

130 3 Dror, D.K. and L.H. Allen, *The importance of milk and other animal-source foods for children in low-income countries.* Food and nutrition bulletin, 2011. **32**(3): p. 227-243.

130 3 Headey, D., K. Hirvonen, and J. Hoddinott, *Animal sourced foods and child stunting* . 2018, Wiley Online Library.

130 3 McNeill, S. and M.E. Van Elswyk, *Red meat in global nutrition.* Meat science, 2012. **92**(3): p. 166-173.

130 3 Milton, K., *The critical role played by animal source foods in human (Homo) evolution.*
130 4 The Journal of nutrition, 2003. **133**(11): p. 3886S-3892S.

130 3 Murphy, S.P. and L.H. Allen, *Nutritional importance of animal source foods.* The Journal of nutrition, 2003. **133**(11): p. 3932S-3935S.

130 3 Darapheak, C., et al., *Consumption of animal source foods and dietary diversity reduce*
4 *stunting in children in Cambodia.* International archives of medicine, 2013. **6**(1): p. 29.

131 2 David Smith, A. and H. Refsum, *Do we need to reconsider the desirable blood level of vitamin B12?* Journal of internal medicine, 2012. **271**(2): p. 179-182.

131 2 Smith, A.D., M.J. Warren, and H. Refsum, *Vitamin B12* , in *Advances in food and nutrition research* . 2018, Elsevier. p. 215-279.

131 4 Watanabe, F., et al., *Vitamin B12-containing plant food sources for vegetarians.* Nutrients, 2014. **6**(5): p. 1861-1873.

131 5 Dagnelie, P.C., W.A. van Staveren, and H. van den Berg, *Vitamin B-12 from algae appears not to be bioavailable.* The American journal of clinical nutrition, 1991. **53**(3): p. 695-697.

131 5 Stupperich, E. and E. NEXØ, *Effect of the cobalt-N coordination on the cobamide recognition by the human vitamin B12 binding proteins intrinsic factor, transcobalamin and haptocorrin.* European journal of biochemistry, 1991. **199**(2): p. 299-303.

131 5 Watanabe, F., et al., *Pseudovitamin B12 is the predominant cobamide of an algal health food, spirulina tablets.* Journal of Agricultural and Food Chemistry, 1999. **47**(11): p. 4736-4741.

131 5 Watanabe, F., *Vitamin B12 sources and bioavailability.* Experimental biology and medicine, 2007. **232**(10): p. 1266-1274.

132 1 Dinu, M., et al., *Effects of a 3-month dietary intervention with a lacto-ovo-vegetarian diet on vitamin B_{12} levels in a group of omnivores: results from the CARDIVEG (Cardiovascular Prevention with Vegetarian Diet) study.* 2019.

132 4 Jenkins, D.J., et al., *Supplemental vitamins and minerals for CVD prevention and treatment.* Journal of the American College of Cardiology, 2018. **71**(22): p. 2570-2584.

132 4 Niklewicz, A., et al., *The importance of vitamin B12 for individuals choosing plant-based diets.* European Journal of Nutrition, 2023. **62**(3): p. 1551-1559.

133 2 Adesogan, A., *Importance of animal-source foods for meeting global nutritional, educational and economic needs.* Journal of Animal Science, 2018. **96**: p. 164-164.

133 2 de Benoist, B., *Conclusions of a WHO Technical Consultation on folate and vitamin B12 deficiencies.* Food and nutrition bulletin, 2008. **29**(2_suppl1): p. S238-S244.

133 2 Dror, D.K. and L.H. Allen, *The importance of milk and other animal-source foods for children in low-income countries.* Food and nutrition bulletin, 2011. **32**(3): p. 227-243.

133 2 McLean, E.D., et al., *Low plasma vitamin B-12 in Kenyan school children is highly prevalent and improved by supplemental animal source foods.* The Journal of nutrition, 2007. **137**(3): p. 676-682.

133 2 Michaelsen, K.F., et al., *Choice of foods and ingredients for moderately malnourished children 6 months to 5 years of age.* Food and nutrition bulletin, 2009. **30**(3_suppl3): p. S343-S404.

133 2 Neumann, C.G., et al., *Meat supplementation improves growth, cognitive, and behavioral outcomes in Kenyan children.* the Journal of Nutrition, 2007. **137**(4): p. 1119-1123.

133 2 Public Health England. The Eatwell Guide. 2018; Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742750/Eatwell_Guide_booklet_2018v4.pdf.

133 2 Sari, M., et al., *Higher household expenditure on animal-source and nongrain foods lowers the risk of stunting among children 0–59 months old in Indonesia: implications of rising food prices.* The Journal of nutrition, 2010. **140**(1): p. 195S-200S.

133 2 Sheffield, S., M.L. Fiorotto, and T.A. Davis, *Nutritional importance of animal-sourced foods in a healthy diet.* Frontiers in Nutrition, 2024. **11**: p. 1424912.

133 2 Siekmann, J.H., et al., *Animal source foods to improve micronutrient nutrition and human function in developing countries.* J Nutr, 2003. **133**: p. 3972S-3980S.

133 2 Singla, R., et al., *Vitamin B12 deficiency is endemic in Indian population: A perspective from North India.* Indian journal of endocrinology and metabolism, 2019. **23**(2): p. 211.

133 2 Stabler, S.P. and R.H. Allen, *Vitamin B12 deficiency as a worldwide problem.* Annu. Rev. Nutr., 2004. **24**: p. 299-326.

133 2 World Health Organization, *Supplementary foods for the management of moderate acute malnutrition in infants and children 6–59 months of age.* 2012.

133 3 Drake, M., *Vegan couple who fed children only raw fruit and veg charged with murder after baby dies from starvation* , in *Independent* . 2019: UK.

133 3 Gorvett, Z. How a vegan diet could affect your intelligence. 2020; Available from: https://www.bbc.com/future/article/20200127-how-a-vegan-diet-could-affect-your-intelligence.

133 3 Roberts, G., *Mom whose baby died of malnutrition says she kept him on 'Biblical' vegan diet* , in *New York Post* . 2021: USA.

133 3 Royal Academy of Medicine of Belgium. Vegetarian and vegan diets for children and adolescents. 2019 19 August 2019]; Available from: http://www.armb.be/index.php?eID=tx_nawsecuredl&u=0&g=0&hash=0cb640cc431cf2897562f828aa54fbe45325b54b&file=fileadmin/sites/armb/upload/armb_super_editor/armb_editor/pdf/Avis/2019/AVIS_sur_le_veganisme_des_enfants.pdf.

133 3 Wilsher, K., *French vegans face trial after death of baby fed only on breast milk* , in *The Guardian* . 2011: UK.

134 4 Bourre, J.-M., *Effects of nutrients (in food) on the structure and function of the nervous system: update on dietary requirements for brain. Part 1: micronutrients.* Journal of Nutrition Health and Aging, 2006. **10**(5): p. 377.

134 4 Groufh-Jacobsen, S., et al., *Vegans, vegetarians and pescatarians are at risk of iodine deficiency in Norway.* Nutrients, 2020. **12**(11): p. 3555.

135 1 World Health Organization. Hidden hunger. 2014; Available from: https://www.who.int/nutrition/topics/WHO_FAO_ICN2_videos_hiddenhunger/en/.

135 3 Cunnane, S.C., L.S. Harbige, and M.A. Crawford, *The importance of energy and nutrient supply in human brain evolution.* Nutrition and Health, 1993. **9**(3): p. 219-235.

Further references

Ede, G., *Change Your Diet, Change Your Mind: A Powerful Plan to Improve Mood, Overcome Anxiety, and Protect Memory for a Lifetime of Optimal Mental Health* . 2024: Balance.

Rabensteiner, J., et al., *The impact of folate and vitamin B12 status on cognitive function and brain atrophy in healthy elderly and demented Austrians, a retrospective cohort study.* Aging (Albany NY), 2020. **12**(15): p. 15478.

Royal Academy of Medicine of Belgium. Vegetarian and vegan diets for children and adolescents. 2019 19 August 2019]; Available from: http://www.armb.be/index.php?eID=tx_nawsecuredl&u=0&g=0&hash=0cb640cc431cf2897562f828aa54fbe45325b54b&file=fileadmin/sites/armb/upload/armb_super_editor/armb_editor/pdf/Avis/2019/AVIS_sur_le_veganisme_des_enfants.pdf.

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Page	Para	
138	1	Leonard, W.R. and M.L. Robertson, *Evolutionary perspectives on human nutrition: the influence of brain and body size on diet and metabolism.* American Journal of Human Biology, 1994. **6**(1): p. 77-88.
138	1	Roebroeks, W., L.C. Aiello, and W.R. Leonard, *Guts and Brains: an integrative approach to the hominin record* . 2007: Leiden University Press.
138	1	Thompson, J.C., et al., *Origins of the human predatory pattern: The transition to large-animal exploitation by early hominins.* Current anthropology, 2019. **60**(1): p. 1-23.
140	5	Graham, T. and D. Ramsey, *The Happiness Diet: A Nutritional Prescription for a Sharp Brain, Balanced Mood, and Lean, Energized Body.* Missouri Medicine, 2015. **112**(2): p. 114.
140	7	Gannon, M.C., et al., *The effect of fat and carbohydrate on plasma glucose, insulin, C-peptide, and triglycerides in normal male subjects.* Journal of the American College of Nutrition, 1993. **12**(1): p. 36-41.
140	7	Garg, A., et al., *Effects of varying carbohydrate content of diet in patients with non—insulin-dependent diabetes mellitus.* Jama, 1994. **271**(18): p. 1421-1428.
140	7	Holt, S., J. Miller, and P. Petocz, *An insulin index of foods: the insulin demand generated by 1000-kJ portions of common foods.* The American journal of clinical nutrition, 1997. **66**(5): p. 1264-1276.
140	7	Reaven, G.M., *The insulin resistance syndrome: definition and dietary approaches to treatment.* Annu. Rev. Nutr., 2005. **25**: p. 391-406.
140	7	Veit, H.Z., *Eating Cotton: Cottonseed, Crisco, and Consumer Ignorance.* The Journal of the Gilded Age and Progressive Era, 2019. **18**(4): p. 397-421.
142	4	Taubes, G., *The diet delusion* . 2008: Random House.
144	1	Froyen, E., *The effects of fat consumption on low-density lipoprotein particle size in healthy individuals: A narrative review.* Lipids in Health and Disease, 2021. **20**(1): p. 1-21.
144	1	Gerber, P.A. and K. Berneis, *Regulation of low-density lipoprotein subfractions by carbohydrates.* Current Opinion in Clinical Nutrition & Metabolic Care, 2012. **15**(4): p. 381-385.
144	2	Lee, H.S. and J. Lee, Effects of combined exercise and low carbohydrate ketogenic diet interventions on waist circumference and triglycerides in overweight and obese individuals: a systematic review and meta-analysis. International Journal of Environmental Research and Public Health, 2021. 18(2): p. 828.

144 2 Wood, R.J., et al., Effects of a carbohydrate-restricted diet on emerging plasma markers for cardiovascular disease. Nutrition & Metabolism, 2006. 3(1): p. 19.

145 1 Gammal, E.B., K.K. Carroll, and E.R. Plunkett, *Effects of dietary fat on mammary carcinogenesis by 7, 12-dimethylbenz (α) anthracene in rats.* Cancer research, 1967. **27**(10 Part 1): p. 1737-1742.

145 1 Lawrence, G.D., *Dietary fats and health: dietary recommendations in the context of scientific evidence.* Advances in nutrition, 2013. **4**(3): p. 294-302.

145 1 Sakaguchi, M., et al., *Effect of dietary unsaturated and saturated fats on azoxymethane-induced colon carcinogenesis in rats.* Cancer research, 1984. **44**(4): p. 1472-1477.

146 3 Crawford, M.A., et al., *A quantum theory for the irreplaceable role of docosahexaenoic acid in neural cell signalling throughout evolution.* Prostaglandins Leukot Essent Fatty Acids, 2013. **88**(1): p. 5-13.

146 3 Lauritzen, L., et al., *DHA effects in brain development and function.* Nutrients, 2016. **8**(1): p. 6.

147 2 Lane, K., et al., *Bioavailability and potential uses of vegetarian sources of omega-3 fatty acids: a review of the literature.* Critical reviews in food science and nutrition, 2014. **54**(5): p. 572-579.

147 2 Lane, K.E., et al., *Bioavailability and conversion of plant based sources of omega-3 fatty acids–a scoping review to update supplementation options for vegetarians and vegans.* Critical Reviews in Food Science and Nutrition, 2021: p. 1-16.

148 1 Anez-Bustillos, L., et al., *Redefining essential fatty acids in the era of novel intravenous lipid emulsions.* Clin Nutr, 2018. **37**(3): p. 784-789.

148 1 Le, H.D., et al., *The essentiality of arachidonic acid and docosahexaenoic acid.* Prostaglandins, Leukotrienes and Essential Fatty Acids, 2009. **81**(2-3): p. 165-170.

149 4 Grootveld, M., et al., *Health effects of oxidized heated oils 1.* Foodservice Research International, 2001. **13**(1): p. 41-55.

149 4 Yamashima, T., et al., *Intake of ω-6 polyunsaturated fatty acid-rich vegetable oils and risk of lifestyle diseases.* Advances in Nutrition, 2020. **11**(6): p. 1489-1509.

150 2 Braden, L.M. and K.K. Carroll, *Dietary polyunsaturated fat in relation to mammary carcinogenesis in rats.* Lipids, 1986. **21**(4): p. 285.

150 2 Brasky, T.M., et al., *Serum phospholipid fatty acids and prostate cancer risk: results from the prostate cancer prevention trial.* American journal of epidemiology, 2011. **173**(12): p. 1429-1439.

150 2 Gutiérrez, S., S.L. Svahn, and M.E. Johansson, *Effects of omega-3 fatty acids on immune cells.* International journal of molecular sciences, 2019. **20**(20): p. 5028.

150 2 Lange, K.W., et al., *Are there serious adverse effects of omega-3 polyunsaturated fatty acid supplements?* Journal of Food Bioactives, 2019. **7**.

150 2 Tremoli, E., et al., *Prolonged inhibition of platelet aggregation after n-3 fatty acid ethyl ester ingestion by healthy volunteers.* The American journal of clinical nutrition, 1995. **61**(3): p. 607-613.

150 2 Xia, S., et al., *Chronic intake of high fish oil diet induces myeloid-derived suppressor cells to promote tumor growth.* Cancer Immunology, Immunotherapy, 2014. **63**(7): p. 663-673.

151 1 Koundouros, N., et al., *Direct sensing of dietary ω-6 linoleic acid through FABP5-mTORC1 signaling.* Science, 2025. **387**(6739): p. eadm9805.

151 1 Williams, C.D., et al., *A high ratio of dietary n-6/n-3 polyunsaturated fatty acids is associated with increased risk of prostate cancer.* Nutrition research, 2011. **31**(1): p. 1-8.

152 1 Innis, S.M., *Dietary omega 3 fatty acids and the developing brain.* Brain Res, 2008. **1237**: p. 35-43.

152 1 Lassek, W.D. and S.J. Gaulin, *Maternal milk DHA content predicts cognitive performance in a sample of 28 nations.* Maternal & child nutrition, 2015. **11**(4): p. 773-779.

152 2 Derbyshire, E., *Could we be overlooking a potential choline crisis in the United Kingdom?* BMJ Nutrition, Prevention & Health, 2019.

152 2 Koletzko, B., et al., *Should formula for infants provide arachidonic acid along with DHA? A position paper of the European Academy of Paediatrics and the Child Health Foundation.* The American journal of clinical nutrition, 2020. **111**(1): p. 10-16.

152 2 Weber, N. and K.D. Mukherjee, *Lipids in Infant Formulas and Human Milk Fat Substitutes.* Healthful Lipids, 2019.

153 2 Daley, C.A., et al., *A review of fatty acid profiles and antioxidant content in grass-fed and grain-fed beef.* Nutrition journal, 2010. **9**(1): p. 10.

153 3 Black, M.M., *Micronutrient deficiencies and cognitive functioning.* The Journal of nutrition, 2003. **133**(11): p. 3927S-3931S.

154 2 Gharami, K., M. Das, and S. Das, *Essential role of docosahexaenoic acid towards development of a smarter brain.* Neurochemistry international, 2015. **89**: p. 51-62.

154 2 Lauritzen, L., et al., *DHA effects in brain development and function.* Nutrients, 2016. **8**(1): p. 6.

154 3 Balehegn, M., et al., *Animal-sourced foods for improved cognitive development.* Animal Frontiers, 2019. **9**(4): p. 50-57.

154 3 Fanjiang, G. and R.E. Kleinman, *Nutrition and performance in children.* Current Opinion in Clinical Nutrition & Metabolic Care, 2007. **10**(3): p. 342-347.

Further references

Abel, S., S. Riedel, and W. Gelderblom. *Dietary PUFA and cancer.* Proceedings of the Nutrition Society, 2014. **73**(3): p. 361-367.

Armelagos, G.J. and M.N. Cohen. *Paleopathology at the Origins of Agriculture* . 1984: Academic Press Orlando, FL.

Azrad, M., C. Turgeon, and W. Demark-Wahnefried. *Current evidence linking polyunsaturated Fatty acids with cancer risk and progression.* Front Oncol, 2013. **3**: p. 224.

Barendse, W., *Should animal fats be back on the table? A critical review of the human health effects of animal fat.* Animal Production Science, 2014. **54**(7): p. 831-855.

Basak, S., et al. *Maternal Supply of Both Arachidonic and Docosahexaenoic Acids Is Required for Optimal Neurodevelopment.* Nutrients, 2021. **13**(6): p. 2061.

Basak, S., R. Mallick, and A.K. Duttaroy. *Maternal Docosahexaenoic Acid Status During Pregnancy and Its Impact on Infant Neurodevelopment.* 2020.

Basak, S., S. Vilasagaram, and A.K. Duttaroy. *Maternal dietary deficiency of n-3 fatty acids affects metabolic and epigenetic phenotypes of the developing fetus.* Prostaglandins, Leukotrienes and Essential Fatty Acids, 2020: p. 102109.

Bernard, J.Y., et al. *The Dietary n6: n3 Fatty Acid Ratio during Pregnancy Is Inversely Associated with Child Neurodevelopment in the EDEN Mother-Child.*

Bo, Yacong, Xueyuan Zhang, Youli Wang, Jie You, Han Cui, Yiwei Zhu, Wei Pang, Wei Liu, Yugang Jiang, and Quanjun Lu. *"The N-3 Polyunsaturated Fatty Acids Supplementation Improved the Cognitive Function in the Chinese Elderly with Mild Cognitive Impairment: A Double-Blind Randomized Controlled Trial."* Nutrients **9**, no. 1 (2017): 54.

Booyens, J., L. Maguire, and I. Katzeff. *Dietary fats and cancer.* Medical Hypotheses, 1985. **17**(4): p. 351-362.

Bradbury, Joanne. *Docosahexaenoic Acid (Dha): An Ancient Nutrient for the Modern Human Brain.* Nutrients **3**, no. 5 (2011): 529-54.

Bragg, M.G., E.L. Prado, and C.P. Stewart. *Choline and docosahexaenoic acid during the first 1000 days and children's health and development in low-and middle-income countries.* Nutrition Reviews, 2022. **80**(4): p. 656-676.

Brenna, J.T. *Efficiency of conversion of α-linolenic acid to long chain n-3 fatty acids in man.* Current Opinion in Clinical Nutrition and Metabolic Care, 2002. **5**(2): p. 127-132.

Bunn, H.T. and J.A. Ezzo. *Hunting and scavenging by Plio-Pleistocene hominids: nutritional constraints, archaeological patterns, and behavioural implications.* Journal of Archaeological Science, 1993. **20**(4): p. 365-398.

Burr, G.O. and M.M. Burr. *A new deficiency disease produced by the rigid exclusion of fat from the diet.* Journal of Biological Chemistry, 1929. **82**(2): p. 345-367.

Carroll, K.K. *Dietary fats and cancer.* The American Journal of Clinical Nutrition, 1991. **53**(4): p. 1064S-1067S.

Castañer, O., et al. *Remnant cholesterol, not LDL cholesterol, is associated with incident cardiovascular disease.* Journal of the American College of Cardiology, 2020. **76**(23): p. 2712-2724.

Chang, C.-Y., D.-S. Ke, and J.-Y. Chen. *Essential fatty acids and human brain.* Acta Neurol Taiwan, 2009. **18**(4): p. 231-41.

Cholewski, M., M. Tomczykowa, and M. Tomczyk. *A Comprehensive Review of Chemistry, Sources and Bioavailability of Omega-3 Fatty Acids.* Nutrients, 2018. **10**(11): p. 1662.

Chowdhury, R., Warnakula, S., Kunutsor, S., Crowe, F., Ward, H. A., Johnson, L., . . . Thompson, S. G. (2014). *Association of dietary, circulating, and supplement fatty acids with coronary risk: a systematic review and meta-analysis.* Annals of Internal Medicine, **160**(6), 398-406.

Cohen, M.N., *Health and the Rise of Civilization* . 1989: Yale University Press.

Crawford, M.A., R.P. Bazinet, and A.J. Sinclair. *Fat intake and CNS functioning: ageing and disease.* Annals of Nutrition and Metabolism, 2009. **55**(1-3): p. 202.

Davis, B.C. and P.M. Kris-Etherton. *Achieving optimal essential fatty acid status in vegetarians: current knowledge and practical implications.* The American Journal of Clinical Nutrition, 2003. **78**(3): p. 640S-646S.

Degirolamo, C. and L.L. Rudel. *Dietary monounsaturated fatty acids appear not to provide cardioprotection.* Current Atherosclerosis Reports, 2010. **12**(6): p. 391-396.

Dehghan, M., et al. *Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study.* The Lancet, 2017. **390**(10107): p. 2050-2062.

DiNicolantonio, J.J., S.C. Lucan , and J.H. O'Keefe. *The evidence for saturated fat and for sugar related to coronary heart disease.* Progress in Cardiovascular Diseases, 2016. **58**(5): p. 464-472.

Ede, G. *Change Your Diet, Change Your Mind: A Powerful Plan to Improve Mood, Overcome Anxiety, and Protect Memory for a Lifetime of Optimal Mental Health* . 2024: Balance.

Feltham, S. and E.C. Westman. *A case study of overfeeding 3 different diets.* Current Opinion in Endocrinology & Diabetes and Obesity, 2021. **28**(5): p. 446-452.

Forsythe, C.E., et al. *Comparison of low fat and low carbohydrate diets on circulating fatty acid composition and markers of inflammation.* Lipids, 2008. **43**(1): p. 65-77.

Gillman, Matthew W, L Adrienne Cupples, Barbara E Millen, R Curtis Ellison, and Philip A Wolf. *Inverse Association of Dietary Fat with Development of Ischemic Stroke in Men.* JAMA-Journal of the American Medical Association-US Edition **278**, no. 24 (1997): 2145-50.

Ginsberg, H.N., et al. *Triglyceride-rich lipoproteins and their remnants: metabolic insights, role in atherosclerotic cardiovascular disease, and emerging therapeutic strategies—a consensus statement from the European Atherosclerosis Society.* European Heart Journal, 2021. **42**(47): p. 4791-4806.

Graham, T. and D. Ramsey. *The Happiness Diet: A Nutritional Prescription for a Sharp Brain, Balanced Mood, and Lean, Energized Body.* Missouri Medicine, 2015. **112**(2): p. 114.

Guatelli-Steinberg, D. *What teeth reveal about human evolution* . 2016: Cambridge University Press.

Hageman, Jeske HJ, Marianne Danielsen, Arie G Nieuwenhuizen, Anouk L Feitsma, and Trine K Dalsgaard. *Comparison of Bovine Milk Fat and Vegetable Fat for Infant Formula: Implications for Infant Health.* International Dairy Journal **92** (2019): 37-49.

Hayward, Rodney A and Harlan M Krumholz. *Three Reasons to Abandon Low-Density Lipoprotein Targets: An Open Letter to the Adult Treatment Panel Iv of the National Institutes of Health.* Vol. **5**: Am Heart Assoc, 2012.

Hokanson, J.E. and M.A. Austin. *Plasma triglyceride level is a risk factor for cardiovascular disease independent of high-density lipoprotein cholesterol level: a metaanalysis of population-based prospective studies.* Journal of Cardiovascular Risk, 1996. **3**(2): p. 213-219.

Innis, S.M. *Perinatal biochemistry and physiology of long-chain polyunsaturated fatty acids.* The Journal of Pediatrics, 2003. **143**(4): p. 1-8.

Jandacek, R.J. *Linoleic acid: a nutritional quandary* . in *Healthcare* . 2017. Multidisciplinary Digital Publishing Institute.

Jernerén, Fredrik, Amany K Elshorbagy, Abderrahim Oulhaj, Stephen M Smith, Helga Refsum, and A David Smith. *Brain Atrophy in Cognitively Impaired Elderly: The Importance of Long-Chain ω-3 Fatty Acids and B Vitamin Status in a Randomized Controlled Trial.* Am J Clin Nutr **102**, no. 1 (2015): 215-21.

Jernerén, Fredrik, Tommy Cederholm, Helga Refsum, A David Smith, Cheryl Turner, Jan Palmblad, Maria Eriksdotter, Erik Hjorth, Gerd Faxen-Irving, and Lars-Olof Wahlund. *Homocysteine Status Modifies the Treatment Effect of Omega-3 Fatty Acids on Cognition in a Randomized Clinical Trial in Mild to Moderate Alzheimer's Disease: The Omegad Study.* Journal of Alzheimer's Disease, no. Preprint (2019): 1-9.

Kaliszewska, A., et al. *The Interaction of Diet and Mitochondrial Dysfunction in Aging and Cognition.* International Journal of Molecular Sciences, 2021. **22**(7).

King, RI, CM Florkowski, J Yeo, TA Walmsley, BI Shand, RS Scott, and PM George. *What Is the Best Predictor of the Atherogenic Ldl Subclass Phenotype 'Pattern B'in Patients with Type 2 Diabetes Mellitus?* Annals of clinical biochemistry **48**, no. 2 (2011): 166-69.

La Berge, Ann F. *How the Ideology of Low Fat Conquered America.* Journal of the History of Medicine and Allied Sciences **63**, no. 2 (2008): 139-77.

Lassek, William Day and Steven JC Gaulin. *Maternal Milk Dha Content Predicts Cognitive Performance in a Sample of 28 Nations.* Maternal and Child Nutrition **11**, no. 4 (2015): 773-79.

Lichtenstein, P., et al. *Environmental and heritable factors in the causation of cancer—analyses of cohorts of twins from Sweden, Denmark, and Finland.* New England Journal of Medicine, 2000. **343**(2): p. 78-85.

Majou, Didier. *Evolution of the Human Brain: The Key Roles of Dha (Omega-3 Fatty Acid) and Δ6-Desaturase Gene.* OCL (2018).

Mallick, R., S. Basak, and A.K. Duttaroy. *Docosahexaenoic acid, 22: 6n-3: its roles in the structure and function of the brain.* International Journal of Developmental Neuroscience, 2019.

Miller, M., et al. T*riglycerides and cardiovascular disease: a scientific statement from the American Heart Association.* Circulation, 2011. **123**(20): p. 2292-2333.

Nago, N., Ishikawa, S., Goto, T., & Kayaba, K. (2011). *Low cholesterol is associated with mortality from stroke, heart disease, and cancer: the Jichi Medical School Cohort Study.* Journal of Epidemiology, **21**(1), 67-74.

Nakamura, T., et al. *Excessive fat restriction might promote the recurrence of colorectal tumors.* Nutrition and Cancer, 2010. **62**(2): p. 154-163.

Nettleton, J.A., et al. *Health significance of fat quality in the diet.* Annals of Nutrition and Metabolism, 2013. **63**(1-2): p. 96-102.

Oulhaj, Abderrahim, Fredrik Jernerén, Helga Refsum, A David Smith, and Celeste A de Jager. *Omega-3 Fatty Acid Status Enhances the Prevention of Cognitive Decline by B Vitamins in Mild Cognitive Impairment.* Journal of Alzheimer's Disease **50**, no. 2 (2016): 547-57.

Packard, C.J., J. Boren, and M.-R. Taskinen. *Causes and consequences of hypertriglyceridemia.* Frontiers in Endocrinology, 2020. **11**: p. 252.

Parkin, D.M., L. Boyd, and L. Walker. *16. The fraction of cancer attributable to lifestyle and environmental factors in the UK in 2010.* British Journal of Cancer, 2011. **105**(2): p. S77-S81.

Parks, E.J. and M.K. Hellerstein. *Carbohydrate-induced hypertriacylglycerolemia: historical perspective and review of biological mechanisms.* The American Journal of Clinical Nutrition, 2000. **71**(2): p. 412-433.

Plourde, M. and S.C. Cunnane. *Extremely limited synthesis of long chain polyunsaturates in adults: implications for their dietary essentiality and use as supplements*. Appl Physiol Nutr Metab, 2007. **32**(4): p. 619-34.

Puaschitz, N. G., Strand, E., Norekvål, T. M., Dierkes, J., Dahl, L., Svingen, G. F. T., . . . Pedersen, E. K. R. (2014). *Dietary intake of saturated fat is not associated with risk of coronary events or mortality in patients with established coronary artery disease.* J Nutr, **145**(2), 299-305.

Reddy, B.S., J.H. Weisburger, and E.L. Wynder. *Effects of Dietary Fat Level and Dimethylhyd, razine on Fecal Acid and Neutral Sterol Excretion and Colon Carcinogenesis in Rats*. Journal of the National Cancer Institute, 1974. **52**(2): p. 507-511.

Roccisano, D., et al. *Dietary Fats and Oils: Some Evolutionary and Historical Perspectives Concerning Edible Lipids for Human Consumption.* Food and Nutrition, 2016. **7**: p. 689-702.

Schwartz, Gary J, Jin Fu, Giuseppe Astarita, Xiaosong Li, Silvana Gaetani, Patrizia Campolongo, Vincenzo Cuomo, and Daniele Piomelli. *The Lipid Messenger Oea Links Dietary Fat Intake to Satiety.* Cell Metab **8**, no. 4 (2008): 281-88.

Shrestha, N., et al. *Role Of Omega-6 and Omega-3 fatty acids in fetal programming.* Clinical and Experimental Pharmacology and Physiology, 2020. **47**(5): p. 907-915.

Simopoulos, A.P. *Evolutionary aspects of diet: the omega-6/omega-3 ratio and the brain.* Molecular Neurobiology, 2011. **44**(2): p. 203-215.

Taha, A.Y. *Linoleic acid–good or bad for the brain?* NPJ Science of Food, 2020. **4**(1): p. 1-6.

Teicholz, N. *The big fat surprise: why butter, meat and cheese belong in a healthy diet*. 2014: Simon and Schuster.

Thompson, J.C., et al. *Origins of the human predatory pattern: The transition to large-animal exploitation by early hominins*. Current Anthropology, 2019. **60**(1): p. 1-23.

van Vliet, P. *Cholesterol and late-life cognitive decline.* Journal of Alzheimer's Disease, 2012. **30**(s2): p. S147-S162.

Weinberg, S.L. *The diet–heart hypothesis: a critique.* Journal of the American College of Cardiology, 2004. **43**(5): p. 731-733.

Weiser, Michael, Christopher Butt, and M Mohajeri. *Docosahexaenoic Acid and Cognition Throughout the Lifespan.* Nutrients **8**, no. 2 (2016): 99.

Willett, W.C. and R.L. Leibel. *Dietary fat is not a major determinant of body fat.* The American Journal of Medicine, 2002. **113**(9): p. 47-59.

Zhang, Yan-Ping, Rujuan Miao, Qing Li, Tianfeng Wu, and Fei Ma. *Effects of Dha Supplementation on Hippocampal Volume and Cognitive Function in Older Adults with Mild Cognitive Impairment: A 12-Month Randomized, Double-Blind, Placebo-Controlled Trial.* Journal of Alzheimer's Disease **55**, no. 2 (2017): 497-507.

158 2 Schönfeld, P. and G. Reiser, *Why does brain metabolism not favor burning of fatty acids to provide energy?-Reflections on disadvantages of the use of free fatty acids as fuel for brain.* Journal of Cerebral Blood Flow & Metabolism, 2013. **33**(10): p. 1493-1499.

159 1 Cahill Jr, G.F., Fuel metabolism in starvation. Annu. Rev. Nutr., 2006. 26: p. 1-22.

159 1 Cunnane, S.C., et al., *Brain energy rescue: an emerging therapeutic concept for neurodegenerative disorders of ageing.* Nature Reviews Drug Discovery, 2020. **19**(9): p. 609-633.

159 3 Greco, T., et al., Ketogenic diet decreases oxidative stress and improves mitochondrial respiratory complex activity. Journal of Cerebral Blood Flow & Metabolism, 2016. 36(9): p. 1603-1613.

159 3 Prins, M.L., *Cerebral metabolic adaptation and ketone metabolism after brain injury.* Journal of Cerebral Blood Flow & Metabolism, 2008. **28**(1): p. 1-16.

159 3 Cunnane, S.C., Ketones, omega-3 fatty acids and the Yin-Yang balance in the brain: insights from infant development and Alzheimer's disease, and implications for human brain evolution. 2018, EDP Sciences.

159 3 Nugent, S., et al., Ketones and brain development: Implications for correcting deteriorating brain glucose metabolism during aging. OCL, 2016. 23(1): p. D110.

159 3 Cunnane, S.C., et al., *Brain energy rescue: an emerging therapeutic concept for neurodegenerative disorders of ageing.* Nature Reviews Drug Discovery, 2020. **19**(9): p. 609-633.

159 3 Grigolon, R.B., et al., Mental, emotional, and behavioral effects of ketogenic diet for non-epileptic neuropsychiatric conditions. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2020. 102: p. 109947.

159 3 Fomin, D.A., B. McDaniel, and J. Crane, *The promising potential role of ketones in inflammatory dermatologic disease: A new frontier in treatment research.* Journal of Dermatological Treatment, 2017. **28**(6): p. 484-487.

159 3 Bueno, N.B., et al., *Very-low-carbohydrate ketogenic diet v. low-fat diet for long-term weight loss: a meta-analysis of randomised controlled trials.* British journal of nutrition, 2013. **110**(7): p. 1178-1187.

159 3 McKenzie, A.L., et al., A novel intervention including individualized nutritional recommendations reduces hemoglobin A1c level, medication use, and weight in type 2 diabetes. JMIR Diabetes, 2017. 2(1): p. e5.

159 3 Hallberg, S.J., et al., Effectiveness and safety of a novel care model for the management of type 2 diabetes at 1 year: an open-label, non-randomized, controlled study. Diabetes Therapy, 2018. 9(2): p. 583-612.

159 3 Miller, V.J., F.A. Villamena, and J.S. Volek, Nutritional Ketosis and Mitohormesis: Potential Implications for Mitochondrial Function and Human Health. J Nutr Metab, 2018. 2018: p. 5157645

159 3 Athinarayanan, S.J., et al., Long-Term Effects of a Novel Continuous Remote Care Intervention Including Nutritional Ketosis for the Management of Type 2 Diabetes: A 2-Year Non-randomized Clinical Trial. Front Endocrinol (Lausanne), 2019. 10: p. 348.

159 3 Feinman, R.D., et al., Dietary carbohydrate restriction as the first approach in diabetes management: critical review and evidence base. Nutrition, 2015. 31(1): p. 1-13.

159 3 Hyde, P.N., et al., Pleiotropic effects of nutritional ketosis: Conceptual framework for keto-adaptation as a breast cancer therapy. Cancer Treatment and Research Communications, 2017. 12: p. 32-39.
159 3 Hasselbalch, S.G., et al., *Changes in cerebral blood flow and carbohydrate metabolism during acute hyperketonemia.* American Journal of Physiology-Endocrinology and Metabolism, 1996. **270**(5): p. E746-E751.
159 3 Volek, J.S., et al., *Carbohydrate restriction has a more favorable impact on the metabolic syndrome than a low fat diet.* Lipids, 2009. **44**: p. 297-309.
159 3 Rondanelli, M., et al., *Does the Ketogenic Diet Mediate Inflammation Markers in Obese and Overweight Adults? A Systematic Review and Meta-Analysis of Randomized Clinical Trials.* Nutrients, 2024. **16**(23): p. 4002.
160 2 Van Hall, G., et al., *Blood lactate is an important energy source for the human brain.* Journal of Cerebral Blood Flow & Metabolism, 2009. **29**(6): p. 1121-1129.
160 2 Wyss, M.T., et al., In vivo evidence for lactate as a neuronal energy source. Journal of Neuroscience, 2011. 31(20): p. 7477-7485.
160 2 Huang, Z., et al., *Lactate as potential mediators for exercise-induced positive effects on neuroplasticity and cerebrovascular plasticity.* Frontiers in Physiology, 2021: p. 1006.
160 2 Huang, C., et al., The ketone body metabolite β-hydroxybutyrate induces an antidepression-associated ramification of microglia via HDACs inhibition-triggered Akt-small RhoGTPase activation. Glia, 2018. 66(2): p. 256-278.
160 2 Medina, J.M. and A. Tabernero, Lactate utilization by brain cells and its role in CNS development. Journal of neuroscience research, 2005. 79(1-2): p. 2-10.
160 2 Lennerz, B.S., et al., Effects of dietary glycemic index on brain regions related to reward and craving in men. The American journal of clinical nutrition, 2013. 98(3): p. 641-647.
160 2 Brooks, G.A., Lactate as a fulcrum of metabolism. Redox biology, 2020. 35: p. 101454.
160 3 Takahashi, S., *Lactate and ketone bodies act as energy substrates as well as signal molecules in the brain.* Psychology and Pathophysiological Outcomes of Eating, 2021. **6**: p. 21.
161 3 Mullins, G., C. Hallam, and I. Broom, Ketosis, ketoacidosis and very-low-calorie diets: putting the record straight. Nutrition Bulletin, 2011. 36(3): p. 397-402.
161 3 Lake, I., Nutritional ketosis is well-tolerated, even in type 1 diabetes: the ZeroFive100 Project; a proof-of-concept study. Current Opinion in Endocrinology & Diabetes and Obesity, 2021. 28(5): p. 453-462.
161 3 Nolan, J., A. Rush, and J. Kaye, Glycaemic stability of a cyclist with Type 1 diabetes: 4011 km in 20 days on a ketogenic diet. Diabetic Medicine, 2019. 36(11): p. 1503-1507.
162 1 Sawyer, L. and E. Gale, Diet, delusion and diabetes. 2009, Springer. p. 1-7.
162 1 Lennerz, B.S., et al., *Carbohydrate restriction for diabetes: rediscovering centuries-old wisdom.* The Journal of clinical investigation, 2021. **131**(1).
162 2 Shambaugh 3rd, G. *Ketone body metabolism in the mother and fetus* . in *Federation proceedings* . 1985.
162 2 Platt, M.W. and S. Deshpande. *Metabolic adaptation at birth* . in *Seminars in Fetal and neonatal Medicine* . 2005. Elsevier.

162 2 Cunnane, S.C., Survival of the fattest: the key to human brain evolution. 2005: World Scientific.

162 2 Cunnane, S.C. and M.A. Crawford, *Survival of the fattest: fat babies were the key to evolution of the large human brain.* Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology, 2003. **136**(1): p. 17-26.

162 2 Cunnane, S.C., L.S. Harbige, and M.A. Crawford, The importance of energy and nutrient supply in human brain evolution. Nutrition and Health, 1993. 9(3): p. 219-235.

162 2 Cunnane, S.C. and M.A. Crawford, Energetic and nutritional constraints on infant brain development: implications for brain expansion during human evolution. Journal of human evolution, 2014. 77: p. 88-98.

162 2 Chez, R.A. and F. Curcio 3rd, Ketonuria in normal pregnancy. Obstetrics and gynecology, 1987. 69(2): p. 272-274.

162 2 Paterson, P., et al., Maternal and foetal ketone concentrations in plasma and urine. The Lancet, 1967. 289(7495): p. 862-865.

162 2 Akerblom, H., T. Ahola, and O. Somersalo, *Acetone bodies in blood of infants and children of various ages.* Ann. Paediat. Fenn., 1965. **11**: p. 108-113.

Further references

Brooks, G.A., *Lactate as a fulcrum of metabolism.* Redox Biology, 2020. **35**: p. 101454.

Cahill Jr, G.F., *Fuel metabolism in starvation.* Annu. Rev. Nutr., 2006. **26**: p. 1-22.

Chez, R.A. and F. Curcio 3rd, *Ketonuria in normal pregnancy.* Obstetrics and Gynecology, 1987. **69**(2): p. 272-274.

Cunnane, S.C. and M.A. Crawford, *Survival of the fattest: fat babies were the key to evolution of the large human brain.* Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology, 2003. **136**(1): p. 17-26.

Cunnane, S.C., *Survival of the fattest: the key to human brain evolution* . 2005: World Scientific.

Fomin, Daren A, Brianna McDaniel, and Jonathan Crane. *The Promising Potential Role of Ketones in Inflammatory Dermatologic Disease: A New Frontier in Treatment Research.* Journal of Dermatological Treatment **28**, no. 6 (2017): 484-87.

Furini, Chiara, Giorgia Spaggiari, Manuela Simoni, Carla Greco, and Daniele Santi. *Ketogenic State Improves Testosterone Serum Levels—Results from a Systematic Review and Meta-Analysis*. Endocrine (2022): 1-10.

Goldberg, Emily L, Irina Shchukina, Jennifer L Asher, Sviatoslav Sidorov, Maxim N Artyomov, and Vishwa Deep Dixit. *Ketogenesis Activates Metabolically Protective γδ T Cells in Visceral Adipose Tissue.* Nature Metabolism (2020): 1-12.

Goldberg, Emily L, Jennifer L Asher, Ryan D Molony, Albert C Shaw, Caroline J Zeiss, Chao Wang, Ludmilla A Morozova-Roche, Raimund I Herzog, Akiko Iwasaki, and Vishwa Deep Dixit. *β-Hydroxybutyrate Deactivates Neutrophil Nlrp3 Inflammasome to Relieve Gout Flares*. Cell Reports **18**, no. 9 (2017): 2077-87.

Gormsen, Lars C, Mads Svart, Henrik Holm Thomsen, Esben Søndergaard, Mikkel H Vendelbo, Nana Christensen, Lars Poulsen Tolbod, Hendrik Johannes Harms, Roni Nielsen, and Henrik Wiggers. *Ketone Body Infusion with 3-Hydroxybutyrate Reduces Myocardial Glucose Uptake and Increases Blood Flow in Humans: A Positron Emission Tomography Study.* Journal of the American Heart Association **6**, no. 3 (2017): e005066.

Greco, Tiffany, Thomas C Glenn, David A Hovda, and Mayumi L Prins. *Ketogenic Diet Decreases Oxidative Stress and Improves Mitochondrial Respiratory Complex Activity.* Journal of Cerebral Blood Flow & Metabolism **36**, no. 9 (2016): 1603-13.

Grigolon, Ruth B, Fernando Gerchman, Alice C Schöffel, Emily R Hawken, Hartej Gill, Gustavo H Vazquez, Rodrigo B Mansur, Roger S McIntyre, and Elisa Brietzke. *Mental, Emotional, and Behavioral Effects of Ketogenic Diet for Non-Epileptic Neuropsychiatric Conditions*. Progress in Neuro-Psychopharmacology and Biological Psychiatry **102** (2020): 109947.

Gross, Elena C, Rainer J Klement, Jean Schoenen, Dominic P D'Agostino, and Dirk Fischer. *Potential Protective Mechanisms of Ketone Bodies in Migraine Prevention.* Nutrients **11**, no. 4 (2019): 811.

Hallböök, Tove, Sunggoan Ji, Stuart Maudsley, and Bronwen Martin. *The Effects of the Ketogenic Diet on Behavior and Cognition.* Epilepsy Research **100**, no. 3 (2012): 304-09.

Hasselbalch, S.G., et al. *Changes in cerebral blood flow and carbohydrate metabolism during acute hyperketonemia.* American Journal of Physiology-Endocrinology and Metabolism, 1996. **270**(5): p. E746-E751.

Hawdon, JM, MP Ward Platt, and A Aynsley-Green. *Patterns of Metabolic Adaptation for Preterm and Term Infants in the First Neonatal Week.* Archives of disease in childhood **67**, no. 4 Spec No (1992): 357-65.

Horton, Julie L, Michael T Davidson, Clara Kurishima, Rick B Vega, Jeffery C Powers, Timothy R Matsuura, Christopher Petucci, E Douglas Lewandowski, Peter A Crawford, and Deborah M Muoio. *The Failing Heart Utilizes 3-Hydroxybutyrate as a Metabolic Stress Defense.* JCI Insight **4**, no. 4 (2019).

Huang , Z., et al. *Lactate as potential mediators for exercise-induced positive effects on neuroplasticity and cerebrovascular plasticity.* Frontiers in Physiology, 2021: p. 1006.

Huang, Chao, Peng Wang, Xing Xu, Yaru Zhang, Yu Gong, Wenfeng Hu, Minhui Gao, Yue Wu, Yong Ling, and Xi Zhao. *The Ketone Body Metabolite β-Hydroxybutyrate Induces an Antidepression-Associated Ramification of Microglia Via Hdacs Inhibition-Triggered Akt-Small Rhogtpase Activation.* Glia **66**, no. 2 (2018): 256-78.

Jensen, Nicole Jacqueline, Helena Zander Wodschow, Malin Nilsson, and Jørgen Rungby. *Effects of Ketone Bodies on Brain Metabolism and Function in Neurodegenerative Diseases*. International Journal of Molecular Sciences **21**, no. 22 (2020): 8767.

Kimura, Ikuo, Daisuke Inoue, Takeshi Maeda, Takafumi Hara, Atsuhiko Ichimura, Satoshi Miyauchi, Makio Kobayashi, Akira Hirasawa, and Gozoh Tsujimoto. *Short-Chain Fatty Acids and Ketones Directly Regulate Sympathetic Nervous System Via G Protein-Coupled Receptor 41 (Gpr41).* Proceedings of the National Academy of Sciences **108**, no. 19 (2011): 8030-35.

Kinsman, Stephen L, Eileen PG Vining, Shirley A Quaskey, David Mellits, and John M Freeman. *Efficacy of the Ketogenic Diet for Intractable Seizure Disorders: Review of 58 Cases.* Epilepsia **33**, no. 6 (1992): 1132-36.

Kolb, Hubert, Kerstin Kempf, Martin Röhling, Martina Lenzen-Schulte, Nanette C Schloot, and Stephan Martin. *Ketone Bodies: From Enemy to Friend and Guardian Angel.* BMC Medicine **19**, no. 1 (2021): 1-15.

Lake, I., *Nutritional ketosis is well-tolerated, even in type 1 diabetes: the ZeroFive100 Project; a proof-of-concept study.* Current Opinion in Endocrinology & Diabetes and Obesity, 2021. **28**(5): p. 453-462.

Lennerz, B.S., et al. *Carbohydrate restriction for diabetes: rediscovering centuries-old wisdom*. The Journal of Clinical Investigation, 2021. **131**(1).

Lilamand, Matthieu, François Mouton-Liger, and Claire Paquet. *Ketogenic Diet Therapy in Alzheimer's Disease: An Updated Review.* Current Opinion in Clinical Nutrition & Metabolic Care **24**, no. 4 (2021): 372-78.

Maalouf, Marwan, Jong M Rho, and Mark P Mattson. *The Neuroprotective Properties of Calorie Restriction, the Ketogenic Diet, and Ketone Bodies*. Brain Research Reviews **59**, no. 2 (2009): 293-315.

Maalouf, Marwan, Patrick G Sullivan, Laurie Davis, Do Young Kim, and Jong M Rho. *Ketones Inhibit Mitochondrial Production of Reactive Oxygen Species Production Following Glutamate Excitotoxicity by Increasing Nadh Oxidation.* Neuroscience **145**, no. 1 (2007): 256-64.

Mattson, Mark P, Keelin Moehl, Nathaniel Ghena, Maggie Schmaedick, and Aiwu Cheng. *Intermittent Metabolic Switching, Neuroplasticity and Brain Health.* Nature Reviews Neuroscience **19**, no. 2 (2018): 63.

Medina, J.M. and A. Tabernero, *Lactate utilization by brain cells and its role in CNS development.* Journal of Neuroscience Research, 2005. **79**(1-2): p. 2-10.

Miller, V.J., F.A. Villamena, and J.S. Volek , *Nutritional ketosis and mitohormesis: potential implications for mitochondrial function and human health.* Journal of Nutrition and Metabolism, 2018. **2018**.

Mullins, G., C. Hallam, and I. Broom, *Ketosis, ketoacidosis and very-low-calorie diets: putting the record straight.* Nutrition Bulletin, 2011. **36**(3): p. 397-402.

Newman, John C and Eric Verdin. *Ketone Bodies as Signaling Metabolites*. Trends in Endocrinology & Metabolism **25**, no. 1 (2014): 42-52.

Nolan, J., A. Rush, and J. Kaye, *Glycaemic stability of a cyclist with Type 1 diabetes: 4011 km in 20 days on a ketogenic diet.* Diabetic Medicine, 2019. **36**(11): p. 1503-1507.

O'Hearn, L Amber. *Evidence on Chronic Ketosis in Traditional Arctic Populations.* Journal of Evolution and Health **3**, no. 1 (2018): 11.

Paterson, P., et al. Maternal and foetal ketone concentrations in plasma and urine. The Lancet, 1967. 289(7495): p. 862-865.

Pérez-Guisado, Joaquín. *Arguments in Favor of Ketogenic Diets*. Internet J Nutr Wellness **4**, no. 2 (2007): 1-15.

Pinto, Alessandro, Alessio Bonucci, Elisa Maggi, Mariangela Corsi, and Rita Businaro. *Anti-Oxidant and Anti-Inflammatory Activity of Ketogenic Diet: New Perspectives for Neuroprotection in Alzheimer's Disease.* Antioxidants **7**, no. 5 (2018): 63.

Prins, M.L., *Cerebral metabolic adaptation and ketone metabolism after brain injury.* Journal of Cerebral Blood Flow & Metabolism, 2008. **28**(1): p. 1-16.

Puchalska, Patrycja and Peter A Crawford. *Multi-Dimensional Roles of Ketone Bodies in Fuel Metabolism, Signaling, and Therapeutics.* Cell Metab **25**, no. 2 (2017): 262-84.

Sawyer , L. and E. Gale, *Diet, delusion and diabetes* . 2009, Springer. p. 1-7.

Schwartz, Gary J, Jin Fu, Giuseppe Astarita, Xiaosong Li, Silvana Gaetani, Patrizia Campolongo, Vincenzo Cuomo, and Daniele Piomelli. *The Lipid Messenger Oea Links Dietary Fat Intake to Satiety.* Cell Metab **8**, no. 4 (2008): 281-88.

Sokoloff, LOUIS. *Metabolism of Ketone Bodies by the Brain.* Annual Review of Medicine **24**, no. 1 (1973): 271-80.

Takahashi, S., *Lactate and ketone bodies act as energy substrates as well as signal molecules in the brain.* Psychology and Pathophysiological Outcomes of Eating, 2021. **6**: p. 21.

Van Hall, G., et al. *Blood lactate is an important energy source for the human brain.* Journal of Cerebral Blood Flow & Metabolism, 2009. **29**(6): p. 1121-1129.

Veech, R.L., et al. *Ketone bodies mimic the life span extending properties of caloric restriction.* IUBMB life, 2017. **69**(5): p. 305-314.

Volek, J. S. and R. D. Feinman. Carbohydrate Restriction Improves the Features of Metabolic Syndrome. Metabolic Syndrome May Be Defined by the Response to Carbohydrate Restriction. Nutr Metab (Lond) 2 (Nov 16 2005): 31. http://dx.doi.org/10.1186/1743-7075-2-31.

Volek, Jeff S, Matthew J Sharman, Dawn M Love, Neva G Avery, Timothy P Scheett, and William J Kraemer. *Body Composition and Hormonal Responses to a Carbohydrate-Restricted Diet.* Metabolism-Clinical and Experimental **51**, no. 7 (2002): 864-70.

Westman, E. C., R. D. Feinman, J. C. Mavropoulos, M. C. Vernon, J. S. Volek, J. A. Wortman, W. S. Yancy, and S. D. Phinney. Low-Carbohydrate Nutrition and Metabolism. Am J Clin Nutr 86, no. 2 (Aug 2007): 276-84. http://dx.doi.org/10.1093/ajcn/86.2.276.

Wyss, M.T., et al. *In vivo evidence for lactate as a neuronal energy source.* Journal of Neuroscience, 2011. **31**(20): p. 7477-7485.

Yancy, W. S., Jr., M. Foy, A. M. Chalecki, M. C. Vernon, and E. C. Westman. A Low-Carbohydrate, Ketogenic Diet to Treat Type 2 Diabetes. Nutr Metab (Lond) 2 (Dec 1 2005): 34. http://dx.doi.org/10.1186/1743-7075-2-34.

Page Para **CHAPTER 12:** DOUBTS ABOUT GOUT

168 4 Muscelli, E., et al., *Effect of insulin on renal sodium and uric acid handling in essential hypertension.* American journal of hypertension, 1996. **9**(8): p. 746-752.

168 4 Robles-Cervantes, J., et al., *Relationship between serum concentration of uric acid and insulin secretion among adults with type 2 diabetes mellitus.* International journal of Endocrinology, 2011. **2011**(1): p. 107904.

168 4 Perez-Ruiz, F., et al., *Renal underexcretion of uric acid is present in patients with apparent high urinary uric acid output.* Arthritis Care & Research: Official Journal of the American College of Rheumatology, 2002. **47**(6): p. 610-613.

Further references

Dessein, PH, EA Shipton, AE Stanwix, BI Joffe, and J Ramokgadi. *Beneficial Effects of Weight Loss Associated with Moderate Calorie/Carbohydrate Restriction, and Increased Proportional Intake of Protein and Unsaturated Fat on Serum Urate and Lipoprotein Levels in Gout: A Pilot Study.* Annals of the Rheumatic Diseases **59**, no. 7 (2000): 539-43.

Goldberg, E.L., et al. *β-Hydroxybutyrate deactivates neutrophil NLRP3 inflammasome to relieve gout flares.* Cell Reports, 2017. **18**(9): p. 2077-2087.

Kaneko, K., et al. *Total purine and purine base content of common foodstuffs for facilitating nutritional therapy for gout and hyperuricemia.* Biol Pharm Bull, 2014. **37**(5): p. 709-21.

Schaefer, O., *Medical Observations and Problems in the Canadian Arctic: Part II.* Canadian Medical Association Journal, 1959. **81**(5): p. 386.

CHAPTER 13: MIND THE GAP

174 2 Dziewiecka, H., et al., *Effect of 2000-meter rowing test on parameters of intestinal integrity in elite rowers during competitive phase-observational study.* 2024.

174 2 Ribichini, E., et al., *Exercise-induced gastrointestinal symptoms in endurance sports: A review of pathophysiology, symptoms, and nutritional management.* Dietetics, 2023. **2**(3): p. 289-307.

174 2 Walter, E., et al., *Changes in gastrointestinal cell integrity after marathon running and exercise-associated collapse.* European Journal of Applied Physiology, 2021. **121**: p. 1179-1187.

174 4 Visser, J., et al., *Tight junctions, intestinal permeability, and autoimmunity: celiac disease and type 1 diabetes paradigms.* Annals of the New York Academy of Sciences, 2009. **1165**(1): p. 195-205.

174 4 DaFonte, T.M., et al., *Zonulin as a biomarker for the development of celiac disease.* Pediatrics, 2024. **153**(1): p. e2023063050.

Further references

Aydoğan Avşar, P., et al. *Serum zonulin and claudin-5 levels in children with attention-deficit/hyperactivity disorder.* International Journal of Psychiatry in Clinical Practice, 2020: p. 1-7.

Barber, G.S., et al. *Elevated zonulin, a measure of tight-junction permeability, may be implicated in schizophrenia.* Schizophr Res, 2019.

Beguin, P., et al. *Effect of polyunsaturated fatty acids on tight junctions in a model of the human intestinal epithelium under normal and inflammatory conditions.* Food and Function, 2013. **4**(6): p. 923-931.

BHF. How can I improve my gut health. Available from: https://www.bhf.org.uk/informationsupport/heart-matters-magazine/nutrition/how-can-i-improve-my-gut-health.

Borde, A. and A. Åstrand, *Alopecia areata and the gut—the link opens up for novel therapeutic interventions.* Expert Opinion on Therapeutic Targets, 2018. **22**(6): p. 503-511.

Camara-Lemarroy, C.R., et al. *Biomarkers of intestinal barrier function in multiple sclerosis are associated with disease activity.* Multiple Sclerosis Journal, 2020. **26**(11): p. 1340-1350.

Camilleri, M., et al. *Role for diet in normal gut barrier function: developing guidance within the framework of food-labeling regulations.* American Journal of Physiology-Gastrointestinal and Liver Physiology, 2019. **317**(1): p. G17-G39.

Cantorna, M.T., L. Snyder, and J. Arora, *Vitamin A and vitamin D regulate the microbial complexity, barrier function, and the mucosal immune responses to ensure intestinal homeostasis.* Crit Rev Biochem Mol Biol, 2019. **54**(2): p. 184-192.

Clemens, Z. and C. Tóth, *Paleolithic ketogenic diet (PKD) in chronic diseases: Clinical and research data.* Journal of Evolution and Health, 2018. **3**(2): p. 6.

Clemens, Z., A. Kelemen, and C. Tóth, *NREM-sleep associated epileptiform discharges disappeared following a shift toward the paleolithic ketogenic diet in a child with extensive cortical malformation.* Am J Med Case Rep, 2015. **3**(7): p. 212-5.

Clemens, Z., et al. *Childhood absence epilepsy successfully treated with the paleolithic ketogenic diet.* Neurology and Therapy, 2013. **2**(1-2): p. 71-76.

Costa, R., et al. *Systematic review: exercise-induced gastrointestinal syndrome—implications for health and intestinal disease.* Alimentary Pharmacology and Therapeutics, 2017. **46**(3): p. 246-265.

Cusick, M.F., J.E. Libbey, and R.S. Fujinami, *Molecular mimicry as a mechanism of autoimmune disease.* Clinical Reviews in Allergy and Immunology, 2012. **42**(1): p. 102-111.

Dalla Pellegrina, C., et al. *Effects of wheat germ agglutinin on human gastrointestinal epithelium: insights from an experimental model of immune/epithelial cell interaction.* Toxicology and Applied Pharmacology, 2009. **237**(2): p. 146-153.

Damms-Machado, A., et al. *Gut permeability is related to body weight, fatty liver disease, and insulin resistance in obese individuals undergoing weight reduction.* Am J Clin Nutr, 2017. **105**(1): p. 127-135.

Daneman, R. and M. Rescigno, *The gut immune barrier and the blood-brain barrier: are they so different?* Immunity, 2009. **31**(5): p. 722-735.

de Kort, S., D. Keszthelyi, and A.A. Masclee, *Leaky gut and diabetes mellitus: what is the link?* Obes Rev, 2011. **12**(6): p. 449-58.

De Punder, K. and L. Pruimboom, *The dietary intake of wheat and other cereal grains and their role in inflammation.* Nutrients, 2013. **5**(3): p. 771-787.

De Santis, S., et al. *Nutritional keys for intestinal barrier modulation.* Frontiers in Immunology, 2015. **6**: p. 612.

DeMeo, M.T., et al. *Intestinal permeation and gastrointestinal disease.* Journal of Clinical Gastroenterology, 2002. **34**(4): p. 385-396.

den Besten, G., et al. *The role of short-chain fatty acids in the interplay between diet, gut microbiota, and host energy metabolism.* J Lipid Res, 2013. **54**(9): p. 2325-40.

Di Vincenzo, F., et al. *Gut microbiota, intestinal permeability, and systemic inflammation: A narrative review.* Internal and Emergency Medicine, 2023: p. 1-19.

Drago, S., et al. *Gliadin, zonulin and gut permeability: Effects on celiac and non-celiac intestinal mucosa and intestinal cell lines.* Scandinavian Journal of Gastroenterology, 2006. **41**(4): p. 408-419.

Dunlop, S.P., et al. *Abnormal intestinal permeability in subgroups of diarrhea-predominant irritable bowel syndromes.* Official Journal of the American College of Gastroenterology| ACG, 2006. **101**(6): p. 1288-1294.

Fasano, A. and T. Shea-Donohue, *Mechanisms of disease: the role of intestinal barrier function in the pathogenesis of gastrointestinal autoimmune diseases.* Nature Reviews Gastroenterology & Hepatology, 2005. **2**(9): p. 416.

Fasano, A., *All disease begins in the (leaky) gut: Role of zonulin-mediated gut permeability in the pathogenesis of some chronic inflammatory diseases.* F1000Research, 2020. **9**.

Fasano, A., et al. *Nonceliac gluten sensitivity.* Gastroenterology, 2015. **148**(6): p. 1195-1204.

Fasano, A., et al. *Zonulin, a newly discovered modulator of intestinal permeability, and its expression in coeliac disease.* Lancet, 2000. **355**(9214): p. 1518-9.

Fasano, A., *Intestinal permeability and its regulation by zonulin: diagnostic and therapeutic implications.* Clinical Gastroenterology and Hepatology, 2012. **10**(10): p. 1096-1100.

Fasano, A., *Zonulin and its regulation of intestinal barrier function: the biological door to inflammation, autoimmunity, and cancer.* Physiological Reviews, 2011. **91**(1): p. 151-175.

Fiorentino, M., et al. *Blood–brain barrier and intestinal epithelial barrier alterations in autism spectrum disorders.* Molecular Autism, 2016. **7**(1): p. 49.

Galipeau, H.J. and E.F. Verdu, *The complex task of measuring intestinal permeability in basic and clinical science.* Neurogastroenterol Motil, 2016. **28**(7): p. 957-65.

Groschwitz, K.R. and S.P. Hogan, *Intestinal barrier function: molecular regulation and disease pathogenesis.* Journal of Allergy and Clinical Immunology, 2009. **124**(1): p. 3-20.

Hanning, N., et al. *Intestinal barrier dysfunction in irritable bowel syndrome: a systematic review.* Therapeutic Advances in Gastroenterology, 2021. **14**: p. 1756284821993586.

Hollon, J., et al. *Effect of gliadin on permeability of intestinal biopsy explants from celiac disease patients and patients with non-celiac gluten sensitivity.* Nutrients, 2015. **7**(3): p. 1565-1576.

Irvine, E.J. and J.K. Marshall, *Increased intestinal permeability precedes the onset of Crohn's disease in a subject with familial risk.* Gastroenterology, 2000. **119**(6): p. 1740-1744.

Jackson, P., et al. *Intestinal permeability in patients with eczema and food allergy.* The Lancet, 1981. **317**(8233): p. 1285-1286.

Jensen-Jarolim, E., et al. *Hot spices influence permeability of human intestinal epithelial monolayers.* The Journal of Nutrition, 1998. **128**(3): p. 577-581.

Kealy, J., C. Greene, and M. Campbell, *Blood-brain barrier regulation in psychiatric disorders.* Neuroscience Letters, 2020. **726**: p. 133664.

Khoshbin, K. and M. Camilleri, *Effects of dietary components on intestinal permeability in health and disease.* American Journal of Physiology-Gastrointestinal and Liver Physiology, 2020. **319**(5): p. G589-G608.

Kuki, Á., et al. *Quantification of polyethylene glycol 400 excreted in the urine by MALDI-TOF mass spectrometry.* Pharmaceutics, 2022. **14**(7): p. 1341.

Leech, B., J. Schloss, and A. Steel, *Association between increased intestinal permeability and disease: A systematic review.* Advances in Integrative Medicine, 2018.

Li, X., et al. *High-fat diet promotes experimental colitis by inducing oxidative stress in the colon.* American Journal of Physiology-Gastrointestinal and Liver Physiology, 2019. **317**(4): p. G453-G462.

Lozano-Castellon, J., et al. *Cooking with extra-virgin olive oil: A mixture of food components to prevent oxidation and degradation.* Trends in Food Science & Technology, 2022. **123**: p. 28-36.

Mkumbuzi, L., et al. *Insulin Resistance is Associated with Gut Permeability Without the Direct Influence of Obesity in Young Adults.* Diabetes Metab Syndr Obes, 2020. **13**: p. 2997-3008.

Modifications of intestinal permeability during food provocation procedures in pediatric IBS_barau1990.pdf

Moreno-Navarrete, J.M., et al. *Circulating zonulin, a marker of intestinal permeability, is increased in association with obesity-associated insulin resistance.* PLOS One, 2012. **7**(5): p. e37160.

Rahman, M.T., et al. *IFN-γ, IL-17A, or zonulin rapidly increase the permeability of the blood-brain and small intestinal epithelial barriers: Relevance for neuro-inflammatory diseases.* Biochemical and Biophysical Research Communications, 2018. **507**(1-4): p. 274-279.

Ramos, G.P. and K.A. Papadakis. *Mechanisms of Disease: Inflammatory Bowel Diseases* . in *Mayo Clinic Proceedings* . 2019. Elsevier.

Rao, R., A. Seth, and P. Sheth, *Recent advances in alcoholic liver disease I. Role of intestinal permeability and endotoxemia in alcoholic liver disease.* American Journal of Physiology-Gastrointestinal and Liver Physiology, 2004. **286**(6): p. G881-G884.

Rezaee, F. and S.N. Georas, *Breaking barriers. New insights into airway epithelial barrier function in health and disease.* American Journal of Respiratory Cell and Molecular Biology, 2014. **50**(5): p. 857-869.

Rohr, M., et al. *The dietary peroxidized lipid, 13-HPODE, promotes intestinal inflammation by mediating granzyme B secretion from natural killer cells.* Food & function, 2020. **11**(11): p. 9526-9534.

Rohr, M.W., et al. *Negative effects of a high-fat diet on intestinal permeability: a review.* Advances in Nutrition, 2019.

Sanderson, I., et al. *Improvement of abnormal lactulose/rhamnose permeability in active Crohn's disease of the small bowel by an elemental diet.* Gut, 1987. **28**(9): p. 1073-1076.

Santos, J., et al. *Release of mast cell mediators into the jejunum by cold pain stress in humans.* Gastroenterology, 1998. **114**(4): p. 640-648.

Sapone, A., et al. *Zonulin upregulation is associated with increased gut permeability in subjects with type 1 diabetes and their relatives.* Diabetes, 2006. **55**(5): p. 1443-9.

Selmin, O.I., et al. *n-6 high fat diet induces gut microbiome dysbiosis and colonic inflammation.* International Journal of Molecular Sciences, 2021. **22**(13): p. 6919.

Skardelly, M., et al. *Expression of zonulin, c-kit, and glial fibrillary acidic protein in human gliomas.* Translational Oncology, 2009. **2**(3): p. 117-120.

Steelant, B., et al. *Restoring airway epithelial barrier dysfunction: a new therapeutic challenge in allergic airway disease.* Rhinology, 2016. **54**(3): p. 195-205.

Sugita, K. and K. Kabashima, *Tight junctions in the development of asthma, chronic rhinosinusitis, atopic dermatitis, eosinophilic esophagitis, and inflammatory bowel diseases.* Journal of Leukocyte Biology, 2020. **107**(5): p. 749-762.

Tóth, C. and Z. Clemens, *Type 1 diabetes mellitus successfully managed with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2014. **5**(10): p. 699-703.

Tóth, C., et al. *Crohn's disease successfully treated with the paleolithic ketogenic diet.* Int. J. Case Rep. Images, 2016. **7**: p. 570-578.

Tóth, C. and Z. Clemens, *Successful treatment of a patient with obesity, type 2 diabetes and hypertension with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2015. **6**(3): p. 161-167.

Vancamelbeke, M. and S. Vermeire, *The intestinal barrier: a fundamental role in health and disease.* Expert Review of Gastroenterology & Hepatology, 2017. **11**(9): p. 821-834.

Vancamelbeke, M., et al. *Butyrate does not protect against inflammation-induced loss of epithelial barrier function and cytokine production in primary cell monolayers from patients with ulcerative colitis.* Journal of Crohn's and Colitis, 2019. **13**(10): p. 1351-1361.

Zhang, J.X. and K. Hoshino, *Molecular sensors and nanodevices: principles, designs and applications in biomedical engineering* . 2018: Academic Press.

CHAPTER 14: MEAT AND NO VEG

2 Noakes, T., et al., *Ketogenic: The Science of Therapeutic Carbohydrate Restriction in Human Health* . 2023: Elsevier.

Further references

Alam, M.A., et al. *Impact of early-onset persistent stunting on cognitive development at 5 years of age: Results from a multi-country cohort study.* PLOS One, 2020. **15**(1): p. e0227839.

Armelagos, George J and Mark Nathan Cohen. *Paleopathology at the Origins of Agriculture.* Academic Press Orlando, FL, 1984.

Beguin, P., et al. *Effect of polyunsaturated fatty acids on tight junctions in a model of the human intestinal epithelium under normal and inflammatory conditions.* Food & function, 2013. **4**(6): p. 923-931.

Ben-Dor, M. and R. Barkai, *The importance of large prey animals during the Pleistocene and the implications of their extinction on the use of dietary ethnographic analogies* . Journal of Anthropological Archaeology, 2020. **59**: p. 101192.

Ben-Dor, M., et al. *Man the fat hunter: the demise of Homo erectus and the emergence of a new hominin lineage in the Middle Pleistocene (ca. 400 kyr) Levant.* PLOS One, 2011. **6**(12): p. e28689.

Camilleri, M., et al. *Role for diet in normal gut barrier function: developing guidance within the framework of food-labeling regulations.* American Journal of Physiology-Gastrointestinal and Liver Physiology, 2019. **317**(1): p. G17-G39.

Cantorna, M.T., L. Snyder, and J. Arora, *Vitamin A and vitamin D regulate the microbial complexity, barrier function, and the mucosal immune responses to ensure intestinal homeostasis.* Crit Rev Biochem Mol Biol, 2019. **54**(2): p. 184-192.

Caspari , R. and S.-H. Lee, *Older age becomes common late in human evolution.* Proceedings of the National Academy of Sciences, 2004. **101**(30): p. 10895-10900.

Clemens, Z. and C. Tóth, *Paleolithic ketogenic diet (PKD) in chronic diseases: Clinical and research data.* Journal of Evolution and Health, 2018. **3**(2): p. 6.

Clemens, Z., A. Dabóczi, and C. Tóth, *Paleolithic ketogenic diet (PKD) as a stand-alone therapy in cancer: Case studies.* Therapy, 2016. **1**: p. 4.

Clemens, Z., A. Kelemen, and C. Tóth, *NREM-sleep associated epileptiform discharges disappeared following a shift toward the paleolithic ketogenic diet in a child with extensive cortical malformation.* Am J Med Case Rep, 2015. **3**(7): p. 212-5.

Clemens, Z., et al. *Childhood absence epilepsy successfully treated with the paleolithic ketogenic diet.* Neurology and therapy, 2013. **2**(1-2): p. 71-76.

Clemens, Zsófia and Csaba Tóth. *Paleolithic Ketogenic Diet (Pkd) in Chronic Diseases: Clinical and Research Data.* Journal of Evolution and Health **3**, no. 2 (2018): 6.

Clemens, Zsofia, Andrea Dabóczi, and Csaba Tóth. *Paleolithic Ketogenic Diet (Pkd) as a Stand-Alone Therapy in Cancer: Case Studies.* Therapy **1** (2016): 4.

Clemens, Zsófia, Anna Kelemen, and Csaba Tóth. *Nrem-Sleep Associated Epileptiform Discharges Disappeared Following a Shift toward the Paleolithic Ketogenic Diet in a Child with Extensive Cortical Malformation.* Am J Med Case Rep **3**, no. 7 (2015): 212-5.

Clemens, Zsófia, Anna Kelemen, András Fogarasi, and Csaba Tóth. *Childhood Absence Epilepsy Successfully Treated with the Paleolithic Ketogenic Diet.* Neurology and Therapy **2**, no. 1-2 (2013): 71-76.

Cohen , M.N., *Health and the Rise of Civilization* . 1989: Yale University Press.

Cohen, M.N. and M.N. Cohen, *The food crisis in prehistory: overpopulation in the origins of agriculture.* 1977: Yale Univ.

Cole, J., *Assessing the calorific significance of episodes of human cannibalism in the Palaeolithic.* Scientific reports, 2017. **7**(1): p. 44707.

Costa, R., et al. *Systematic review: exercise-induced gastrointestinal syndrome—implications for health and intestinal disease.* Alimentary pharmacology & therapeutics, 2017. **46**(3): p. 246-265.

Dalla Pellegrina, C., et al. *Effects of wheat germ agglutinin on human gastrointestinal epithelium: insights from an experimental model of immune/epithelial cell interaction.* Toxicology and applied pharmacology, 2009. **237**(2): p. 146-153.

Damms-Machado, A., et al. *Gut permeability is related to body weight, fatty liver disease, and insulin resistance in obese individuals undergoing weight reduction.* Am J Clin Nutr, 2017. **105**(1): p. 127-135.

De Punder, K. and L. Pruimboom, *The dietary intake of wheat and other cereal grains and their role in inflammation.* Nutrients, 2013. **5**(3): p. 771-787.

De Santis, S., et al. *Nutritional keys for intestinal barrier modulation.* Frontiers in immunology, 2015. **6**: p. 612.

DeMeo, M.T., et al. *Intestinal permeation and gastrointestinal disease.* Journal of clinical gastroenterology, 2002. **34**(4): p. 385-396.

Drago, S., et al. *Gliadin, zonulin and gut permeability: Effects on celiac and non-celiac intestinal mucosa and intestinal cell lines*. Scandinavian journal of gastroenterology, 2006. **41**(4): p. 408-419.

Fasano, A., *Intestinal permeability and its regulation by zonulin: diagnostic and therapeutic implications*. Clinical Gastroenterology and Hepatology, 2012. **10**(10): p. 1096-1100.

Faurby, Søren, Daniele Silvestro, Lars Werdelin, and Alexandre Antonelli. *Brain Expansion in Early Hominins Predicts Carnivore Extinctions in East Africa.* Ecology Letters **23**, no. 3 (2020): 537-44.

Ferraro, Joseph V, Thomas W Plummer, Briana L Pobiner, James S Oliver, Laura C Bishop, David R Braun, Peter W Ditchfield, John W Seaman III, Katie M Binetti, and John W Seaman Jr. *Earliest Archaeological Evidence of Persistent Hominin Carnivory.* PLOS One **8**, no. 4 (2013): e62174.

Frassetto, L. A., M. Schloetter, M. Mietus-Synder, R. C. Morris Jr, and A. Sebastian. Metabolic and Physiologic Improvements from Consuming a Paleolithic, Hunter-Gatherer Type Diet. European Journal Of Clinical Nutrition 63 (02/11/online 2009): 947. http://dx.doi.org/10.1038/ejcn.2009.4.

Gandhi, M., et al. *Height gain during early childhood is an important predictor of schooling and mathematics ability outcomes*. Acta Paediatrica, 2011. **100**(8): p. 1113-1118.

Graeber, D. and D. Wengrow, *The Dawn of Everything: A New History of Humanity.* 2021: Penguin UK.

Groschwitz, K.R. and S.P. Hogan, *Intestinal barrier function: molecular regulation and disease pathogenesis*. Journal of allergy and clinical immunology, 2009. **124**(1): p. 3-20.

Guatelli-Steinberg, D., *What teeth reveal about human evolution* . 2016: Cambridge University Press.

Hawks, John. *From Genes to Numbers: Effective Population Sizes in Human Evolution.* In Recent Advances in Palaeodemography, 9-30: Springer, 2008.

Hillson, S., *The current state of dental decay.* Cambridge Studies in Biological and Evolutionary Anthropology, 2008. **53**: p. 111.

Hujoel, P.P. and P. Lingström, *Nutrition, dental caries and periodontal disease: a narrative review.* Journal of clinical periodontology, 2017. **44**: p. S79-S84.

Humphrey, L.T., et al. *Earliest evidence for caries and exploitation of starchy plant foods in Pleistocene hunter-gatherers from Morocco.* Proceedings of the National Academy of Sciences, 2014. **111**(3): p. 954-959.

Jensen-Jarolim, E., et al. *Hot spices influence permeability of human intestinal epithelial monolayers*. The Journal of nutrition, 1998. **128**(3): p. 577-581.

Kaneko, K., et al. *Total purine and purine base content of common foodstuffs for facilitating nutritional therapy for gout and hyperuricemia.* Biol Pharm Bull, 2014. **37**(5): p. 709-21.

Kimbrough, Erik O, Gordon M Myers, and Arthur J Robson. *Infanticide and Human Self Domestication.* Frontiers in Psychology **12** (2021): 667334.

Klippel, J.H., et al. *Primer on the rheumatic diseases*. 2008.

Krief, S., et al. *Bioactive properties of plant species ingested by chimpanzees (Pan troglodytes schweinfurthii) in the Kibale National Park, Uganda.* American Journal of Primatology: Official Journal of the American Society of Primatologists, 2006. **68**(1): p. 51-71.

Larsen, Clark Spencer. *Biological Changes in Human Populations with Agriculture.* Annual Review of Anthropology **24**, no. 1 (1995): 185-213.

Liedloff, J., *The continuum concept.* 2004: Penguin UK.

Lindner, A. and S. Krief. *Do animals use natural properties of plants to self-medicate?* in Applied Equine Nutrition and Training: Equine NUtrition and TRAining COnference (ENUTRACO) 2011. 2012. Springer.

Littlemore, B. and S. Duerden, *Should we be giving dietary advice to prevent periodontal disease? The effect of a low-carbohydrate diet in reducing periodontal inflammation.* BDJ Team, 2021. **8**(10): p. 55-65.

Lovejoy, C Owen, Richard S Meindl, Robert P Mensforth, and Thomas J Barton. *Multifactorial Determination of Skeletal Age at Death: A Method and Blind Tests of Its Accuracy.* American Journal of Physical Anthropology **68**, no. 1 (1985): 1-14.

Lu, N., et al. *High-Protein Diet (Atkins Diet) and Uric Acid Response.: 171.* Arthritis & Rheumatology, 2014. 66.

Mandal, A.K. and D.B. Mount, *The molecular physiology of uric acid homeostasis.* Annual review of physiology, 2015. **77**: p. 323-345.

Masharani, U., P. Sherchan, M. Schloetter, S. Stratford, A. Xiao, A. Sebastian, M. Nolte Kennedy, and L. Frassetto. Metabolic and Physiologic Effects from Consuming a Hunter-Gatherer (Paleolithic)-Type Diet in Type 2 Diabetes. Eur J Clin Nutr 69, no. 8 (Aug 2015): 944-8. http://dx.doi.org/10.1038/ejcn.2015.39.

Matzkies, F., G. Berg, and H. Mädl, *The uricosuric action of protein in man* , in *Purine Metabolism in Man-III* . 1980, Springer. p. 227-231.

Mays, Simon. *The Archaeology of Human Bones.* Routledge, 2021.

Mummert, Amanda, Emily Esche, Joshua Robinson, and George J Armelagos. *Stature and Robusticity during the Agricultural Transition: Evidence from the Bioarchaeological Record.* Economics & Human Biology **9**, no. 3 (2011): 284-301.

Nguyen, P.H., et al. *Child linear growth during and after the first 1000 days is positively associated with intellectual functioning and mental health in school-age children in Vietnam.* The Journal of Nutrition, 2021. **151**(9): p. 2816-2824.

Nugent, C. and F. Tyler, *The renal excretion of uric acid in patients with gout and in nongouty subjects.* The Journal of clinical investigation, 1959. **38**(11): p. 1890-1898.

Otten, J., A. Stomby, M. Waling, A. Isaksson, A. Tellstrom, L. Lundin-Olsson, S. Brage, M. Ryberg, M. Svensson, and T. Olsson. Benefits of a Paleolithic Diet with and without Supervised Exercise on Fat Mass, Insulin Sensitivity, and Glycemic Control: A Randomized Controlled Trial in Individuals with Type 2 Diabetes. Diabetes Metab Res Rev 33, no. 1 (Jan 2017). http://dx.doi.org/10.1002/dmrr.2828.

Otten, Julia. *Effects of a Paleolithic Diet and Exercise on Liver Fat, Muscle Fat and Insulin Sensitivity.* Umeå University, 2016.

Perez-Ruiz, F., et al. *Renal underexcretion of uric acid is present in patients with apparent high urinary uric acid output.* Arthritis Care & Research: Official Journal of the American College of Rheumatology, 2002. **47**(6): p. 610-613.

Qaseem, A., R.P. Harris, and M.A. Forciea, *Management of acute and recurrent gout: a clinical practice guideline from the American College of Physicians*. Annals of internal medicine, 2017. **166**(1): p. 58-68.

Rao, R., A. Seth, and P. Sheth, *Recent advances in alcoholic liver disease I. Role of intestinal permeability and endotoxemia in alcoholic liver disease.* American Journal of Physiology-Gastrointestinal and Liver Physiology, 2004. **286**(6): p. G881-G884.

Richards, M.P. and E. Trinkaus, *Isotopic evidence for the diets of European Neanderthals and early modern humans* . Proceedings of the National Academy of Sciences, 2009. **106**(38): p. 16034-16039.

Santos, J., et al. *Release of mast cell mediators into the jejunum by cold pain stress in humans*. Gastroenterology, 1998. **114**(4): p. 640-648.

Tóth, C. and Z. Clemens, *Type 1 diabetes mellitus successfully managed with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2014. **5**(10): p. 699-703.

Tóth, C., et al. *Crohn's disease successfully treated with the paleolithic ketogenic diet.* Int. J. Case Rep. Images, 2016. **7**: p. 570-578.

Tóth, Csaba and Zsófia Clemens. *Type 1 Diabetes Mellitus Successfully Managed with the Paleolithic Ketogenic Diet.* International Journal of Case Reports and Images (IJCRI) **5**, no. 10 (2014): 699-703.

Tóth, Csaba, Andrea Dabóczi, Mark Howard, Nicholas J Miller, and Zsófia Clemens. *Crohn's Disease Successfully Treated with the Paleolithic Ketogenic Diet.* Int. J. Case Rep. Images **7** (2016): 570-78.

Towle, I., et al. *Dental caries in human evolution: frequency of carious lesions in South African fossil hominins*. BioRxiv, 2019: p. 597385.

Tóth, C. and Z. Clemens, *Successful treatment of a patient with obesity, type 2 diabetes and hypertension with the paleolithic ketogenic diet.* International Journal of Case Reports and Images (IJCRI), 2015. **6**(3): p. 161-167.

Tóth, Csaba and Zsófia Clemens. *Successful Treatment of a Patient with Obesity, Type 2 Diabetes and Hypertension with the Paleolithic Ketogenic Diet.* International Journal of Case Reports and Images (IJCRI) **6**, no. 3 (2015): 161-67.

Van Beekum, M., et al. *The associations between stunting and wasting at 12 months of age and developmental milestones delays in a cohort of Cambodian children.* Scientific Reports, 2022. **12**(1): p. 17859.

Villalba, J.J., F.D. Provenza, and J.O. Hall, *Learned appetites for calcium, phosphorus, and sodium in sheep.* Journal of Animal Science, 2008. **86**(3): p. 738-747.

CHAPTER 15: DIETS DISSECTED

Genoni, A., Lyons-Wall, P., Lo, J. & Devine, A. 2016. *Cardiovascular, Metabolic Effects and Dietary Composition of Ad-Libitum Paleolithic vs. Australian Guide to Healthy Eating Diets: A 4-Week Randomised Trial.* Nutrients, **8,** 314.

Masharani, U., Sherchan, P., Schloetter, M., Stratford, S., Xiao, A., Sebastian, A., Nolte Kennedy, M. & Frassetto, L. 2015. *Metabolic and physiologic effects from consuming a hunter-gatherer (Paleolithic)-type diet in type 2 diabetes*. Eur J Clin Nutr, **69,** 944-8.

Otten, J. 2016. *Effects of a Paleolithic diet and exercise on liver fat, muscle fat and insulin sensitivity.* Umeå University.

Otten, J., Stomby, A., Waling, M., Isaksson, A., Tellstrom, A., Lundin-Olsson, L., Brage, S., Ryberg, M., Svensson, M. & Olsson, T. 2017. *Benefits of a Paleolithic diet with and without supervised exercise on fat mass, insulin sensitivity, and glycemic control: a randomized controlled trial in individuals with type 2 diabetes.* Diabetes Metab Res Rev, **33**.

CHAPTER 16: FENS, MOORS AND MONGOLIA

Barnett A. *Eyeless children championed by Observer win $7m test case.* The Guardian. 2003 [cited 2024 Oct 23]. Available from: https://www.theguardian.com/uk/2003/dec/21/health.healthandwellbeing1

Colston A. *Stakeholder Attitudes to the Narratives of the Dartmoor Commons: Tradition and the Search for Consensus in a Time of Change.* University of Exeter (United Kingdom); 2021. Available at: https://adriancolston.wordpress.com/

Donnelly CA, Ferguson NM, Ghani AC, Woolhouse MEJ, Watt CJ, Anderson RM. *The epidemiology of BSE in cattle herds in Great Britain. I. Epidemiological processes, demography of cattle and approaches to control by culling.* Philosophical Transactions of the Royal Society of London Series B: Biological Sciences. 1997 Jul 29 [cited 2023 Apr 16];**352**(1355):781–801. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1691970/

GOV.UK. *Organic farming statistics 2022* . GOV.UK. 2022. Available from: https://www.gov.uk/government/statistics/organic-farming-statistics-2022/organic-farming-statistics-2022

House of Lords. *Bettison and Others v. Langton and Others*. Parliament.uk. 2024. Available from: https://publications.parliament.uk/pa/ld200001/ldjudgmt/jd010517/betti-1.htm

La Bonnardière C, Bonaiti B, Abrial D, Gasqui P, Calavas D, Ducrot C, et al. *Milk yield, age at first calving, and the risk of BSE: An analysis at the farm level in France.* Preventive Veterinary Medicine. 2007 Jan;**78**(1):67–78.

Meng X, Gao X, Li S, Li S, Lei J. *Monitoring desertification in Mongolia based on Landsat images and Google Earth Engine from 1990 to 2020. Ecological Indicators* . 2021 Oct 1;129:107908. Available from: https://www.sciencedirect.com/science/article/pii/S1470160X21005732

Mercy Corps. *Where we work:Mongolia.* Mercy Corps. Available from: https://www.mercycorps.org/where-we-work/mongolia

Sauter-Louis C, Clauss M, Chaher E, Klee W, Wichmann HE, Kienzle E. *Breed predisposition for BSE: epidemiological evidence in Bavarian cattle.* Schweizer Archiv Fur Tierheilkunde. 2006 May 1;**148**(5):245–50. Available from: https://pubmed.ncbi.nlm.nih.gov/16739897/

Sustain. *Unpicking food prices: Where does your food pound go, and why do farmers get so little?* Sustain.2022. Available from: https://www.sustainweb.org/reports/dec22-unpicking-food-prices/

The Eyecare Trust. *Anophthalmia and Microphthalmia.* Eyecaretrust.org.uk. 2024 [cited 2024 Oct 23]. Available from: https://www.eyecaretrust.org.uk/view.php?item_id=63

UK Parliament. Enclosing the land [Internet]. UK Parliament. 2019. Available from: https://www.parliament.uk/about/living-heritage/transformingsociety/towncountry/landscape/overview/enclosingland/

CHAPTER 17: NATURE IN CRISIS

Carson R. *Silent Spring.* London: Penguin Books; 1962.

Environment Agency. *Pollution incidents 2015 evidence summary.* 2016. Available from: https://assets.publishing.service.gov.uk/media/5a82b712e5274a2e87dc29e7/Pollution_incidents_2015_evidence_summary_LIT_10487.pdf

Greenwood P. *Review: An overview of beef production from pasture and feedlot globally, as demand for beef and the need for sustainable practices increase. Animal.* 2021 Jul 15;15(1):100295. Available from: https://www.sciencedirect.com/science/article/pii/S1751731121001385

Herefordshire Wildlife Trust. *What's polluting the River Wye?.* www.herefordshirewt.org. 2023. Available from: https://www.herefordshirewt.org/blog/whats-polluting-river-wye

Marine Conservation Society. *Good Fish Guide.* www.mcsuk.org. Available from: https://www.mcsuk.org/goodfishguide/

Mottet A, de Haan C, Falcucci A, Tempio G, Opio C, Gerber P. *Livestock: On our plates or eating at our table? A new analysis of the feed/food debate.* Global Food Security. 2017 Sep;**14**:1–8. Available from: https://www.sciencedirect.com/science/article/pii/S2211912416300013?via%3Dihub

Savory A. *How to fight desertification and reverse climate change.* www.ted.com. 2013. Available from: https://www.ted.com/talks/allan_savory_how_to_fight_desertification_and_reverse_climate_change?subtitle=en

Sustain. *Environmental impacts.* Sustainweb.org. 2019. Available from: https://www.sustainweb.org/goodcatch/environmental_impacts/

Sustain. *Good Catch... the essentials: A manual for sustainable seafood.* Sustainweb.org. 2024. Available from: https://www.sustainweb.org/reports/good_catch/

UN Food and Agriculture Organisation. *Land use statistics and indicators (Global, regional and country trends 1990–2019).* Statistics. FAO; 2021. Available from: https://www.fao.org/statistics/highlights-archive/highlights-detail/New-FAOSTAT-data-release-Land-use-statistics-and-indicators-(Global-regional-and-country-trends-1990-2019)/

CHAPTER 18: BULLSH*T

Allen MR, Fuglestvedt JS, Shine KP, Reisinger A, Pierrehumbert RT, Forster PM. *New use of global warming potentials to compare cumulative and short-lived climate pollutants*. Nature Climate Change. 2016 May 2; **6**(8):773–6.

Allen,M. *Methane policy represents an opportunity to clarify the definition of climate neutrality.* European Commission - Have your say. 2020 August 04. Available from: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12504-EU-methane-strategy/F540870_en

Cain, M., Lynch, J., Allen, M.R., Fuglestvedt, J.S., Frame, D.J., Macey, A.H. 2019. *Improved calculation of warming-equivalent emissions for short-lived climate pollutants*. npj Climate and Atmospheric Science **2**(29): 2019. https://doi.org/10.1038/s41612-019-0086-4

Cain, M., Lynch, J., Shine, K., Fuglestvedt, J., Macey, A., Frame, D. and Allen, M. (2019) *Using GWP* to bring short-lived pollutants into a carbon budget or to evaluate NDCs of the Paris Agreement.* Geophysical Research Abstracts **21**: EGU2019-16999. Available from: https://meetingorganizer.copernicus.org/EGU2019/EGU2019-16999.pdf

Crossland I. *Claims against meat fail to consider bigger picture.* Sustainable Food Trust. 2018. Available from: https://sustainablefoodtrust.org/news-views/claims-against-meat-fail-to-consider-bigger-picture/

Del Prado, A., Manzano, P. and Pardo, G. (2021) *The role of the European small ruminant dairy sector in stabilising global temperatures: lessons from GWP* warming-equivalent emission metrics*. Journal of Dairy Research **88**(1): 8–15. Also available from: https://www.cambridge.org/core/journals/journal-of-dairy-research/article/role-of-the-european-small-ruminant-dairy-sector-in-stabilising-global-temperatures-lessons-from-gwp-warmingequivalent-emission-metrics/E830DEE36B5C8BEF07E5CB66FE0B9F7F

Department for Business, Energy & Industrial Strategy. *Final UK greenhouse gas emissions national statistics: 1990-2017.* GOV.UK. 2019. Available from: https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-2017

Devlin S. *Agricultural labour in the UK 1.* Available from: https://foodresearch.org.uk/wp-content/uploads/sites/8/2016/07/Agricultural-labour-briefing-FINAL-4-July-2016.pdf

FAO. 2023. *Pathways towards lower emissions – A global assessment of the greenhouse gas emissions and mitigation options from livestock agrifood systems*. Rome https://doi.org/10.4060/cc9029en

Gerber, P.J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Falcucci, A. & Tempio, G. 2013. *Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities*. Food and Agriculture Organization of the United Nations (FAO), Rome. Available from: https://openknowledge.fao.org/server/api/core/bitstreams/492bb0b2-8b73-4e49-b188-8176b1d8c711/content

Glatzle A. *Questioning key conclusions of FAO publications 'Livestock's Long Shadow' (2006) appearing again in 'Tackling Climate Change Through Livestock' (2013).* Pastoralism: Research, Policy and Practice. 2014;**4**(1):1. Available from https://pastoralismjournal.springeropen.com/articles/10.1186/2041-7136-4-1

Hahn-Niman, N. *Defending Beef. 2nd ed.* London UK: Chelsea Green; 2021.

Herrero M, Gerber P, Vellinga T, Garnett T, Leip A, Opio C, et al. *Livestock and greenhouse gas emissions: The importance of getting the numbers right.* Animal Feed Science and Technology. 2011 Jun;166-167:779–82.

Herrero M, Thornton PK, Gerber P, Reid RS. *Livestock, livelihoods and the environment: understanding the trade-offs*. Current Opinion in Environmental Sustainability. 2009 Dec; **1**(2):111–20.

Hilliard M. *Tech key to resolving methane problem, Oireachtas agriculture group hears*. The Irish Times. 2022 . Available from: https://www.irishtimes.com/politics/oireachtas/2022/07/20/tech-key-to-resolving-methane-problem-oireachtas-agriculture-group-hears/?utm_source=dlvr.it&utm_medium=twitter

Houzer, E. and Scoones, I. (2021) *Are Livestock Always Bad for the Planet? Rethinking the Protein Transition and Climate Change Debate.* Brighton: PASTRES. Available from: https://pastres.org/livestock-report/

IPCC. *AR6 Synthesis Report: Climate Change 2023.* IPCC. IPCC; 2023. Available from: https://www.ipcc.ch/report/sixth-assessment-report-cycle/

IPCC. *IPCC — Intergovernmental Panel on Climate Change.* Ipcc.ch. IPCC; 2024. Available from: https://www.ipcc.ch/

Ipcc.ch. *Land Use, Land-Use Change and Forestry.* 2024. Available from: https://archive.ipcc.ch/ipccreports/sres/land_use/index.php?idp=19

Mackenzie P, Rawlinson D, Rosbotham L. Livestock and Climate Change *What if the key actors in climate change are… cows, pigs, and chickens?* 2009. Available from: https://awellfedworld.org/wp-content/uploads/Livestock-Climate-Change-Anhang-Goodland.pdf

Mann M E. *Dire Predictions: Understanding Climate Change.* 2016. Available from: https://michaelmann.net/books/dire-predictions

Manzano P, del Prado A, Pardo G. *Comparable GHG emissions from animals in wildlife and livestock-dominated savannas. npj Climate and Atmospheric Science.* 2023 Apr 3 [cited 2023 Apr 5];**6**(1):1–5. Available from: https://www.nature.com/articles/s41612-023-00349-8

MIT. *How do we know how long carbon dioxide remains in the atmosphere?*. 2023. MIT Climate Portal . Available from: https://climate.mit.edu/ask-mit/how-do-we-know-how-long-carbon-dioxide-remains-atmosphere

Mitloehner F. *Why methane from cattle warms the climate differently than CO2 from fossil fuels*. CLEAR Center. 2020. Available from: https://clear.ucdavis.edu/explainers/why-methane-cattle-warms-climate-differently-co2-fossil-fuels

Nason, J. *Scientists understand cattle not climate villains, but media still missing message.* Beef Central. 2020. Available from: https://www.beefcentral.com/production/scientists-understand-cattle-are-not-climate-villains-media-still-missing-the-message/

Perry BD, Sones KR. *Poverty reduction through animal health.* Cgiar.org. American Association for the Advancement of Science; 2007. Available from: https://cgspace.cgiar.org/items/173d1505-0724-47c1-9627-a2d2d61e79d2

Poore J, Nemecek T. *Reducing Food's Environmental Impacts through Producers and Consumers*. *Science.* 2018 Jun 1;**360**(6392):987–92. Available from: https://www.science.org/doi/10.1126/science.aaq0216

Savory Institute. *An Exploration of Methane and Properly Managed Livestock through Holistic Management.* 2015. Available from: https://savory.global/wp-content/uploads/2017/02/2015-methane.pdf

Scoones I. *Livestock, methane, and climate change: The politics of global assessments*. WIREs Climate Change. 2022 May 27;**14**(1). Available from: https://wires.onlinelibrary.wiley.com/doi/10.1002/wcc.790

Smith P, Bustamante M, Helal Ahammad, Clark H, Dong H, Elsiddig EA, et al. *Agriculture, Forestry and Other Land Use (AFOLU).* Bristol.ac.uk. 2014; Available from: https://research-information.bristol.ac.uk/en/publications/agriculture-forestry-and-other-land-use-afolu(3143dfc2-ca55-4a16-bcd1-afbddc4af538)/export.html

Soil Carbon Coalition. *Methane: ruminant livestock a minor player in atmospheric levels*. soilcarboncoalition.org. Available from: https://soilcarboncoalition.org/methane/

Statistica. *Share of the workforce employed in major sectors in Western Europe in select years between 1900 and 2000.* www.statistica.com. 2024. Available from: https://www.statista.com/statistics/1072843/employment-structure-western-europe-by-sector-1900-2000/

Terrer C, Phillips RP, Hungate BA, Rosende J, Pett-Ridge J, Craig ME, et al. *A trade-off between plant and soil carbon storage under elevated CO 2.* Nature. 2021 Mar 1 [cited 2021 May 4];**591**(7851):599–603. Available from: https://www.nature.com/articles/s41586-021-03306-8

Throp H. *What the IPCC report means for global action on 1.5°C.* Chatham House – International Affairs Think Tank. Available at: https://www.chathamhouse.org/2023/03/what-ipcc-report-means-global-action?gclid=EAIaIQobChMI48nsya2-gwMVBJJQBh3fCA0wEAAYAyAAEgJ_9_D_BwE

Trading Economics. *United Kingdom - Employment In Agriculture (% Of Total Employment) - 1969-2019 Data. 2020 Forecast.* tradingeconomics.com. Available from: https://tradingeconomics.com/united-kingdom/employment-in-agriculture-percent-of-total-employment-wb-data.html

Turner AJ, Frankenberg C, Kort EA. *Interpreting contemporary trends in atmospheric methane.* Proceedings of the National Academy of Sciences of the United States of America [Internet]. 2019 Feb 19;**116**(8):2805–13. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6386658/

United Nations. *Paris Agreement.* United Nations; 2015. Available from: https://unfccc.int/sites/default/files/english_paris_agreement.pdf

University of Oxford. *Rewilding the Arctic Could Stop Permafrost Thaw and Reduce Climate Change Risks*. University of Oxford [Internet]. www.ox.ac.uk. 2020. Available from: https://www.ox.ac.uk/news/2020-01-27-rewilding-arctic-could-stop-permafrost-thaw-and-reduce-climate-change-risks

US Department of Commerce N. *Global Monitoring Laboratory - Carbon Cycle Greenhouse Gases*. gml.noaa.gov. 2023. Available from: https://gml.noaa.gov/ccgg/trends_ch4/

US EPA,OA. *Global Greenhouse Gas Emissions Data | Greenhouse Gas (GHG) Emissions | US EPA*. Epa.gov. 2014. Available from: https://19january2017snapshot.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data_.html

Zimov S, Zimov N. *Role of Megafauna and Frozen Soil in the Atmospheric CH4 Dynamics*. Bond-Lamberty B, editor. PLoS ONE. 2014 Apr 2;**9**(4):e93331.

CHAPTER 19: THE ANSWER LIES IN THE SOIL

Allan Savory's TED Talk: *How to green the world's deserts and reverse climate change* . Savory Institute. 2023 [cited 2024 Dec 4]. Available from: https://savory.global/science_library/ted/

Azeez G. *Soil Carbon and Organic Farming*. Soil Association; 2009. Available from: http://www.nourishscotland.org/wp-content/uploads/2012/09/sa.pdf .

Bengtsson J, Bullock JM, Egoh B, Everson C, Everson T, O'Connor T, et al. *Grasslands-more important for ecosystem services than you might think*. Ecosphere. 2019 Feb;**10**(2):e02582. Available from: https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.2582

CABI. *The Climate Battleground: Grassland or Forest*. CABI Blog. 2020. Available from: https://blog.cabi.org/2020/06/25/the-climate-battleground-grassland-or-forest/

Cho R. *Can Soil Help Combat Climate Change?* State of the Planet. Columbia Climate School; 2018. Available from: https://news.climate.columbia.edu/2018/02/21/can-soil-help-combat-climate-change/

Creek S. *Star Creek Land Stewards, Inc.* Star Creek Land Stewards, Inc. 2022. Available from: https://www.starcreeklandstewards.com/

Darby M. *No-dig for victory: saving Britain's soils from climate stress*. Climate Home News. 2016 [cited 2024 Dec 4]. Available from: https://www.climatechangenews.com/2016/08/12/no-dig-for-victory-saving-britains-soils-from-climate-stress/

Davidson, E.A., Ackerman, I.L. *Changes in soil carbon inventories following cultivation of previously untilled soils*. Biogeochemistry **20**, 161–193 (1993). Available from: https://doi.org/10.1007/BF00000786

DEFRA. *Agri-climate report 2021*. GOV.UK. 2021. Available from: https://www.gov.uk/government/statistics/agri-climate-report-2021/agri-climate-report-2021

DEFRA. *Organic farming statistics United Kingdom 2020*. 2021. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/996197/Organic_Farming_2020_stats_notice-24jun21.pdf

Diack I. *England Peat Action Plan Butterburn Flow*. © Iain Diack. 2021. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1010786/england-peat-action-plan.pdf

Environment Agency. *Natural flood management – part of the nation's flood resilience.* GOV.UK. 2017. Available from: https://www.gov.uk/government/news/natural-flood-management-part-of-the-nations-flood-resilience

Environment Agency. *Working with natural processes to reduce flood risk.* GOV.UK. Available from: https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/working-with-natural-processes-to-reduce-flood-risk

FAO. *Emissions due to agriculture. Global, regional and country trends*. FAOSTAT Analytical Brief **18**. 2000. Available from: https://openknowledge.fao.org/server/api/core/bitstreams/cc09fbbc-eb1d-436b-a88a-bed42a1f12f3/content

Farm Wildlife. *Mountain, hill and moorland.* Available from: https://farmwildlife.info/how-to-do-it/existing-wildlife-habitats/mountain-hill-and-moorland/

Farming for Nature. *Peatlands*. Available from: https://www.farmingfornature.ie/your-farm/by-habitat/peatlands/

Fens for the Future. *Lowland Peat in the Fens*. Fens for the Future. 2016. Available from: https://fensforthefuture.org.uk/the-fens/land

Gattinger A, Muller A, Haeni M, Skinner C, Fliessbach A, Buchmann N, et al. *Enhanced top soil carbon stocks under organic farming. Proceedings of the National Academy of Sciences* . 2012 Oct 15;**109**(44):18226–31. Available from: https://www.pnas.org/content/109/44/18226

Greatfen. *Wet Farming* . www.greatfen.org.uk. Available from: https://www.greatfen.org.uk/big-ideas/wet-farming

Guo LB, Gifford RM. *Soil carbon stocks and land use change: a meta analysis*. Global Change Biology. 2002 Apr;**8**(4):345–60. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1354-1013.2002.00486.x

Hahn-Niman, N. *Defending Beef. 2nd ed.* London UK: Chelsea Green; 2021.

Holman IP and Kechavarzi C. *An estimate of peat reserves and loss in the East Anglian Fens Commissioned by the RSPB.* 2009. Available from: https://www.fensforthefuture.org.uk/admin/resources/downloads/fenland-peat-assessment-cranfield-university-2009-commissioned-by-rspb.pdf

IPCC *Land Use, Land-Use Change and Forestry.* Ipcc.ch. 2024. Available from: https://archive.ipcc.ch/ipccreports/sres/land_use/index.php?idp=19

Jackson J, Choudrie S, Thistlethwaite G, Passant N, Murrells T, Watterson J, Mobbs D, Cardenas L, Thomson A, Leech. *A UK Greenhouse Gas Inventory 1990 to 2007.* Annual Report for submission under the Framework Convention on Climate Change. 2009

Kazemian, S. (2018). *Organic Soils and Peats.* In: Bobrowsky, P.T., Marker, B. (eds) Encyclopedia of Engineering Geology. Encyclopedia of Earth Sciences Series. Springer, Cham. https://doi.org/10.1007/978-3-319-73568-9_214

Kopansky D. *Peatlands store twice as much carbon as all the world's forests.* UN Environment. 2019. Available from: https://www.unep.org/news-and-stories/story/peatlands-store-twice-much-carbon-all-worlds-forests

Lal R. *Soil Carbon Sequestration Impacts on Global Climate Change and Food Security.* Science. 2004 Jun 11;**304**(5677):1623–7. Available from: https://www.science.org/doi/10.1126/science.1097396

Ludwig JA, Tongway DJ. *Desertification in Australia: An eye to grass roots and landscapes*. Environmental Monitoring and Assessment. 1995;**37**(1-3):231–7.

Montgomery DR. *Growing a revolution: bringing our soil back to life.* WW Norton & Company; 2017 May 9.

National Trust. *Explore Woodchester Park, Gloucestershire.* 2024. Available from: https://www.nationaltrust.org.uk/visit/gloucestershire-cotswolds/woodchester-park/things-to-see-and-do-at-woodchester-park#cb-76044141-0

NatureScot. *Peatland ACTION - Peatland Management Guidance - grazing, and muirburn.* Available from: https://www.nature.scot/doc/peatland-action-peatland-management-guidance-grazing-and-muirburn

NEPC. *Soil carbon sequestration in pastures*. NEPC Grazing Guide. 2014. Available from: https://grazingguide.net/research/soil-carbon-sequestration-in-pastures.html

Ogle SM, Alsaker C, Baldock J, Bernoux M, Breidt FJ, McConkey B, et al. *Climate and Soil Characteristics Determine Where No-Till Management Can Store Carbon in Soils and Mitigate Greenhouse Gas Emissions*. *Scientific Reports*. 2019 Aug 12;**9**(1):11665. Available from: https://www.nature.com/articles/s41598-019-47861-7#:~:text=No%2Dtill%20can%20also%20improve

Parliament.uk. *Soil Carbon and Climate Change.* Parliament.uk. 2015. Available from: https://publications.parliament.uk/pa/cm201617/cmselect/cmenvaud/180/18006.htm

Peatland ACTION. *Peatland Management Guidance - grazing, and muirburn.*

Plantlife. *Grasslands as a Carbon Store.* 2023. Available from: https://www.plantlife.org.uk/wp-content/uploads/2023/08/Grasslands-as-a-Carbon-Store.pdf

Regenetarianism. *Monbiot's Regenesis: A review & response.* Regenetarianism. 2022. Available from: https://lachefnet.wordpress.com/2022/06/22/monbiots-regenesis-a-review-response/

Rogers JJ, Feiss PG. *People and the earth: Basic issues in the sustainability of resources and environment.* Cambridge University Press; 1998 Mar 13.

Rowntree JE, Stanley PL, Maciel ICF, Thorbecke M, Rosenzweig ST, Hancock DW, et al. *Ecosystem Impacts and Productive Capacity of a Multi-Species Pastured Livestock System*. Frontiers in Sustainable Food Systems. 2020 Dec 4;**4**. Available from: https://www.frontiersin.org/articles/10.3389/fsufs.2020.544984/full

Savory Institute. *Holistic Management.* Available from: https://savory.global/holistic-management/

Sleigh J. *Firefighting flock paid to graze California's dry hills*. The Scottish Farmer. 2022. Available from: https://www.thescottishfarmer.co.uk/news/20670486.firefighting-flock-paid-graze-californias-dry-hills/

Soil Association. *Soil Carbon and Organic Farming: a review of the evidence of agriculture's potential to combat climate change.* 2009. Available from https://www.nourishscotland.org/wp-content/uploads/2012/09/sa.pdf

Stanley PL, Rowntree JE, Beede DK, DeLonge MS, Hamm MW. *Impacts of soil carbon sequestration on life cycle greenhouse gas emissions in Midwestern USA beef finishing systems.* Agricultural Systems. 2018 May;**162**(162):249–58.

Steven Noble. *Allan Savory - Reversing Global Warming while Meeting Human Needs.* YouTube. 2013 [cited 2024 Dec 4]. Available from: https://www.youtube.com/watch?v=uEAFTsFH_x4

Teague WR, Apfelbaum S, Lal R, Kreuter UP, Rowntree J, Davies CA, Conser R, Rasmussen M, Hatfield J, Wang T, Wang F. *The role of ruminants in reducing agriculture's carbon footprint in North America. Journal of Soil and Water Conservation.* 2016 Mar 1;**71**(2):156-64.

Terrer C, Phillips RP, Hungate BA, Rosende J, Pett-Ridge J, Craig ME, et al. *A trade-off between plant and soil carbon storage under elevated CO 2.* Nature, 2021 Mar 1;**591**(7851):599–603. Available from: https://www.nature.com/articles/s41586-021-03306-8

The Hen Harrier Project. Available from: http://www.henharrierproject.ie

UN Department of Economic and Social Affairs. *The "4 per 1000" Initiative and its implementation.* sdgs.un.org. Available from: https://sdgs.un.org/partnerships/4-1000-initiative-and-its-implementation

UNFCCC. *Wetlands Disappearing Three Times Faster than Forests.* Unfccc.int. 2020. Available from: https://unfccc.int/news/wetlands-disappearing-three-times-faster-than-forests

US Dept of State. *Desertification and the Convention to Combat Desertification.* Fact Sheet, State.gov. 2024. Available from: https://1997-2001.state.gov/global/oes/fs-desertification_981116.html

Viglizzo EF, Ricard MF, Taboada MA, Vázquez-Amábile G. *Reassessing the role of grazing lands in carbon-balance estimations: Meta-analysis and review.* Science of the Total Environment. 2019 Apr 15;**661**:531-42.

Wikipedia. *Dust Bowl.* Wikipedia. Wikimedia Foundation; 2020. Available from: https://en.wikipedia.org/wiki/Dust_Bowl#Human_displacement

CHAPTER 20: WHEAT IS MURDER

Archer M. *The vegetarian dilemma.* UNSW. 16 December 2011. Available from: https://www.unsw.edu.au/newsroom/news/2011/12/the-vegetarian-dilemma

Barkham P. *Hope "rabbit hotels" can help Britain's decimated population bounce back.* The Guardian. 2021. Available from: https://www.theguardian.com/environment/2021/nov/28/hope-rabbit-hotels-can-help-britains-decimated-population-bounce-back

Bartrip PW. *Myxomatosis in 1950s Britain.* Twentieth Century British History. 2008 Jan 1;**19**(1):83-105.

Bengtsson J, Bullock JM, Egoh B, Everson C, Everson T, O'Connor T, et al. *Grasslands-more important for ecosystem services than you might think.* Ecosphere [Internet]. 2019 Feb;**10**(2):e02582. Available from: https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.2582

Birch J, Burn C, Schnell A, Browning H, Crump A. *Review of the Evidence of Sentience in Cephalopod Molluscs and Decapod Crustaceans.* 2021. Available from: https://www.lse.ac.uk/News/News-Assets/PDFs/2021/Sentience-in-Cephalopod-Molluscs-and-Decapod-Crustaceans-Final-Report-November-2021.pdf

Blakemore R. *Critical Decline of Earthworms from Organic Origins under Intensive, Humic SOM-Depleting Agriculture.* Soil Systems. 2018 Jun 1;**2**(2):33.

Born Free. *Hare today gone tomorrow.* 2019. Available from: https://www.bornfree.org.uk/news/hare-today-gone-tomorrow/

Chen J, Saleem M, Wang C, Liang W, Zhang Q. *Individual and combined effects of herbicide tribenuron-methyl and fungicide tebuconazole on soil earthworm Eisenia fetida.* Scientific Reports. 2018 Feb 14;**8**(1).

DEFRA. *Agricultural Land Use in United Kingdom at 1 June 2023.* GOV.UK. 2023. Available from: https://www.gov.uk/government/statistics/agricultural-land-use-in-the-united-kingdom/agricultural-land-use-in-united-kingdom-at-1-june-2023

Evans M. *On eating meat: the truth about its production and the ethics of eating it.* Sydney, N.S.W.: Murdoch Books; 2019.

FERA Science. *PESTICIDES USAGE STATISTICS - PUS STATS.* pusstats.fera.co.uk. Available from: https://pusstats.fera.co.uk/home

Fortune Business Insights. *Rodenticides Market Size, Share & Industry Analysis, By Type (Anticoagulant and Non-anticoagulant), Form (Pellets, Powders, Sprays, and Others), Application (Agricultural Fields, Warehouse, Pest Control Companies, and Others), and Regional Forecast, 2020-2032.* Available from: https://www.fortunebusinessinsights.com/rodenticides-market-102826

Fox R, Oliver TH, Harrower C, Parsons MS, Thomas CD, Roy DB. *Long-term changes to the frequency of occurrence of British moths are consistent with opposing and synergistic effects of climate and land-use changes.* Journal of Applied Ecology. 2014 Apr 29;**51**(4):949–57.

Friends of the Earth. *There's something wrong in the countryside: rising pesticide use in the UK.* Friends of the Earth. Policy and insight. 2019 [cited 2024 Dec 12]. Available from: https://policy.friendsoftheearth.uk/insight/theres-something-wrong-countryside-rising-pesticide-use-uk#footnote2_por0jwd

GOV.UK. *Organic farming statistics 2022* . GOV.UK. 2022. Available from: https://www.gov.uk/government/statistics/organic-farming-statistics-2022/organic-farming-statistics-2022

Haberkern H, Jayaraman V. *Studying small brains to understand the building blocks of cognition.* Current Opinion in Neurobiology. 2016 Apr;**37**:59–65.Available from:https://www.sciencedirect.com/science/article/pii/S0959438816000088#sec0010

Hallmann CA, Sorg M, Jongejans E, Siepel H, Hofland N, Schwan H, et al. *More than 75 percent decline over 27 years in total flying insect biomass in protected areas.* Lamb EG, editor. PLOS ONE. 2017 Oct 18;**12**(10):e0185809.

Hedgehog Street. *State of Britain's Hedgehogs 2022.* 2022. Available from: https://www.hedgehogstreet.org/state-of-britains-hedgehogs-2022/

Howe H J B. *Wild Animal initiative: Improving pest management for wild insect welfare.* December 2019. Available from https://static1.squarespace.com/static/5f04bd57a1c21d767782adb8/t/5f13d2e37423410cc7ba47ec/1595134692549/Improving%2BPest%2BManagement%2Bfor%2BWild%2BInsect%2BWelfare.pdf

Humann-Guilleminot S, Clément S, Desprat J, Binkowski ŁJ, Glauser G, Helfenstein F. *A large-scale survey of house sparrows feathers reveals ubiquitous presence of neonicotinoids in farmlands.* Science of the Total Environment. 2019 Apr 10;**660**:1091-7. Available from:https://pubmed.ncbi.nlm.nih.gov/30743906/

Le Page M. *Have people in the UK really been banned from shooting wood pigeons?* New Scientist. Available from: https://www.newscientist.com/article/2200822-have-people-in-the-uk-really-been-banned-from-shooting-wood-pigeons/

McGivney A. *"Like sending bees to war": the deadly truth behind your almond milk obsession.* The Guardian. 2020 Jan 8; Available from: https://www.theguardian.com/environment/2020/jan/07/honeybees-deaths-almonds-hives-aoe

Millman O. *US beekeepers lost 40% of honeybee colonies over past year, survey finds.* The Guardian. 2019. Available from: https://www.theguardian.com/environment/2019/jun/19/us-beekeepers-lost-40-of-honeybee-colonies-over-past-year-survey-finds

Natural England. *Rabbits: how to control numbers.* GOV.UK. 2015. Available from: https://www.gov.uk/guidance/rabbits-how-to-control-numbers

Natural England. *Wild birds: licence to control certain species.* GOV.UK. 2019 [cited 2024 Dec 6]. Available from: https://www.gov.uk/government/publications/wild-birds-licence-to-control-certain-species

Radbourne A. *Hedgerows as shelterbelts along agricultural fields (France).* 22 November 2019, updated 10 May 2021. Available from https://vb.nweurope.eu/media/16490/5644-hedgerows-france_nor.pdf

Riordan EC, Rundel PW. *Land Use Compounds Habitat Losses under Projected Climate Change in a Threatened California Ecosystem.* Bond-Lamberty B, editor. PLoS ONE. 2014 Jan 21;**9**(1):e86487. Available from https://pubmed.ncbi.nlm.nih.gov/24466116/

RSPB. *Making tough decisions.* 2018. Available from: https://community.rspb.org.uk/ourwork/b/martinharper/posts/making-tough-decisions

Sánchez-Bayo F, Wyckhuys KAG. *Worldwide Decline of the entomofauna: a Review of Its Drivers.* Biological Conservation. 2019 Apr;**232**:8–27.

Shorthall C.R., Moore A., Smith E, Hall M.J., Woiwod I.P., Harrington R. *Long-term changes in the abundance of flying insects.* Insect Conservation and Diversity. 2009 Nov;**2**(4):251–60.

South West Wildlife Trusts. *Insect declines and why they matter FUTURE Commissioned by the South West Wildlife Trusts 2.* Available from: https://www.wildlifetrusts.org/sites/default/files/2020-02/FULL%20AFI%20REPORT%20WEB1_1.pdf

Stanton RL, Morrissey CA, Clark RG. *Analysis of trends and agricultural drivers of farmland bird declines in North America: A review.* Agriculture, Ecosystems & Environment. 2018 Feb;**254**:244–54. Available from: http://www.za.plainevalsevre.cnrs.fr/wp-content/uploads/2018/03/AEE-2018-Canada-farmland-birds.pdf

Wade A, Lin CH, Kurkul C, Regan E, Johnson R. *Combined Toxicity of Insecticides and Fungicides Applied to California Almond Orchards to Honey Bee Larvae and Adults*. Insects. 2019 Jan 8;**10**(1):20. Available from: https://www.mdpi.com/2075-4450/10/1/20

Wildlife in France. 2024. *Hedgerows and stone walls in France.* Cited 2024 Dec 6. Available from: https://wildlifeinfrance.com/conservation-france/hedgerows-and-stone-walls-in-france

Williams JJ, Freeman R, Spooner F, Newbold T. *Vertebrate population trends are influenced by interactions between land use, climatic position, habitat loss and climate change.* Global Change Biology. 2021 Nov 26.

CHAPTER 21: EMBARGO THE AVOCADO

AGUILERA C. Parliamentary question. *Almond imports from the USA into the EU and their impact on European producers.* E-004954/2020, European Parliament. Europa.eu. 2020 [cited 2024 Dec 12]. Available from: https://www.europarl.europa.eu/doceo/document/E-9-2020-004954_EN.html

AHDB. *Lamb market outlook.* Ahdb.org.uk. 2019. Available from: https://ahdb.org.uk/lamb-market-outlook

Boston Consulting Group. *Tackling the 1.6-Billion-Ton Food Loss and Waste Crisis*. BCG Global. 2020. Available from: https://www.bcg.com/publications/2018/tackling-1.6-billion-ton-food-loss-and-waste-crisis

DEFRA. *United Kingdom Food Security Report 2021: Theme 2: UK Food Supply Sources.* GOV.UK. 2021. Available from: https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2021/united-kingdom-food-security-report-2021-theme-2-uk-food-supply-sources

FAO. *Livestock solutions for climate change.* Available from: https://openknowledge.fao.org/server/api/core/bitstreams/0d178ab7-b755-4eb2-a6cd-05ba1db35819/content

FAO. *Tackling food loss and waste: A triple win opportunity.* Food and Agriculture Organization of the United Nations. 2022. Available from: https://www.fao.org/newsroom/detail/FAO-UNEP-agriculture-environment-food-loss-waste-day-2022/en

FAO. *The State of Food Security and Nutrition in the World 2021.* www.fao.org. 2021. Available from: https://www.fao.org/interactive/state-of-food-security-nutrition/2021/en/

Foster K. 15 *Essential Ingredients for Vegetarian & Vegan Pantries.* Kitchn. Apartment Therapy, LLC.; 2015. Available from: https://www.thekitchn.com/15-essentials-for-a-vegetarian-or-vegan-pantry-pantry-tips-from-the-kitchn-73562

Global Food Security. *The global avocado crisis and resilience in the UK's fresh fruit and vegetable supply system*. Global Food Security. 2017. Available from: https://www.foodsecurity.ac.uk/blog/global-avocado-crisis-resilience-uks-fresh-fruit-vegetable-supply-system/

Li M, Jia N, Lenzen M, Malik A, Wei L, Jin Y, et al. *Global food-miles account for nearly 20% of total food-systems emissions*. *Nature Food*. 2022 Jun 1;**3**(6):445–53. Available from: https://www.nature.com/articles/s43016-022-00531-w

Maple Ridge. *Culinary Experiences*. Maple Ridge, BC. 2024 [cited 2024 Dec 12]. Available from: https://www.mapleridge.ca/explore-maple-ridge/culinary-experiences

OEC. *Legumes in United Kingdom*. The Observatory of Economic Complexity. 2022. Available from: https://oec.world/en/profile/bilateral-product/legumes/reporter/gbr

OEC. Dried *Legumes in United Kingdom*. The Observatory of Economic Complexity. 2022. Available from: https://oec.world/en/profile/bilateral-product/dried-legumes/reporter/gbr

OEC. *Rice in United Kingdom*. *OEC - The Observatory of Economic Complexity*. Available from: https://oec.world/en/profile/bilateral-product/rice/reporter/gbr

OHCHR. *Chile must prioritise water and health rights over economic interests, says UN expert*. OHCHR. Available from: https://www.ohchr.org/en/press-releases/2020/08/chile-must-prioritise-water-and-health-rights-over-economic-interests-says

Scheelbeek PFD, Moss C, Kastner T, Alae-Carew C, Jarmul S, Green R, et al. *United Kingdom's fruit and vegetable supply is increasingly dependent on imports from climate-vulnerable producing countries*. Nature Food. 2020 Nov;**1**(11):705–12.

Statista. *Lamb import volume by country 2017-2018*. Statista. Available from: https://www.statista.com/statistics/298096/import-volume-of-lamb-by-countries-in-the-united-kingdom-uk/

Sustainable Food Trust. *Feeding Britain from the Ground Up*. June 2022 (and updated December 2022). Available from: https://sustainablefoodtrust.org/our-work/feeding-britain/

The Felix Project. *Food Waste Facts*. *London charity fighting food waste and hunger*. Available from: https://thefelixproject.org/news/food-waste-facts

The Independent. *Stop eating avocados*. *Immediately. Mexico's avocado boom causing deforestation and illnesses in local population, experts say*. The Independent. 2016. Available from: https://www.independent.co.uk/news/world/why-you-should-stop-eating-avocados-immediately-mexico-environmental-damage-chemicals-a7397001.html

Volza LLC. *Chia Seeds Imports in United Kingdom*. Volza.com. 2024.Available from: https://www.volza.com/p/chia-seeds/import/import-in-united-kingdom/

Volza. *Almond Almonds Imports in World - Market Size & Demand based on Import Trade Data*. Volza.com. 2024. Available from: https://www.volza.com/p/almond-almonds/import/import-in-united-kingdom/

World Resources Institute. *Making Big Ideas Happen*. Wri.org. 2019. Available from: https://www.wri.org/

CONCLUSION

275 Langford, S. *Rooted: Stories of Life, Land and a Farming Revolution.* 2022. Viking.

276 2 Smaje, C. *A Small Farm Future: Making the Case for a Society Built Around Local Economies, Self-Provisioning, Agricultural Diversity, and a Shared Earth.* 2020. Chelsea Green Publishing Co.