

Table S2. Studies characteristics.

No.	Study Description		Number of Patients with Liver Diseases			interventions		Study Duration (weeks)	Population	Sample Characteristics			
			MD	LFD	Total participants	MD	LFD			BMI Overall (kg/m ²)	Age (Years) Mean ± SD Median (Range)	Outcomes	Male (%)
1	Ryan, M. C. et al., 2013, Australia ¹	RCT	6	6	12	40% energy from fat (MUFA and x3PUFA), 40% from carbohydrate, and 20% from protein.	30% energy from fat, 50% from carbohydrate, and 20% from protein.	6	Adults	32.0 ± 4.2	55 ± 14	ALT, Weight, WC, BMI, TG, IHL, HOMA-IR, GGT, HDL-C	50
2	Ristic-Medic, D. et al., 2020, Serbia ²	RCT	12	12	24	Above 30% from lipid, 50% of the total caloric value from carbohydrate, and 15% from protein.	Less than 25% from lipid, 60% of the total caloric value from carbohydrate (low glycemic index), and 15% from protein.	12	Adults with Overweight or moderately obese	30.43 ± 1.81	34.42 ± 4.66	ALT, Weight, WC, BMI, TG, HOMA-IR, GGT, HDL-C, LDL-C, TC	100

3	George, E. S. et al., 2022, Australia ³	RCT	19	23	42	"44% of energy from fat (>50% monounsaturated fatty acids), 33% from carbohydrates, 15%–20% from protein."	30% of total energy from fat, 50% from carbohydrate and 20% from protein.	12	Adults with or without diabetes	32.15 ± 7.32	52.35 ± 12.71	ALT, TG, Weight, WC, BMI, IHL, HOMA-IR, GGT, LSM, HDL-C, LDL-C	42.5
4	Properzi, C. et al., 2018, Australia ⁴	RCT	24	25	49	35-40% from fat (with <10% of energy as saturated fat), 40% from carbohydrate, and 20% of energy as protein.	30% from fat (with <10% of energy as saturated fat), 50% from carbohydrate, and 20% from protein.	12	Adults	30.85 ± 6.94	52 ± 16.15	ALT, TG, Weight, WC, BMI, HOMA-IR, LSM, HDL-C, LDL-C, TC	51

Table S1. ALT, Alanine aminotransferase; BMI, Body mass index; GGT, Gamma-glutamyl transferase; HDL-C, High-density lipoprotein-cholesterol; HOMA-IR, Homeostatic model assessment for insulin resistance; IHL, Intrahepatic lipid; LDL-C, Low-density lipoprotein-cholesterol; LFD, Low-fat diet; LSM, Liver stiffness measure; MD, Mediterranean diet; TC, Total cholesterol; TG, Triglyceride; WC, Waist circumference.

1. M. C. Ryan, C. Itsiopoulos, T. Thodis, G. Ward, N. Trost, S. Hofferberth, K. O'Dea, P. V. Desmond, N. A. Johnson and A. M. Wilson, The Mediterranean diet improves hepatic steatosis and insulin sensitivity in individuals with non-alcoholic fatty liver disease, *J Hepatol*, 2013, **59**, 138-143.
2. D. Ristic-Medic, M. Kovacic, M. Takic, A. Arsic, S. Petrovic, M. Paunovic, M. Jovicic and V. Vucic, Calorie-Restricted Mediterranean and Low-Fat Diets Affect Fatty Acid Status in Individuals with Nonalcoholic Fatty Liver Disease, *Nutrients*, 2020, **13**.
3. E. S. George, A. Reddy, A. J. Nicoll, M. C. Ryan, C. Itsiopoulos, G. Abbott, N. A. Johnson, S. Sood, S. K. Roberts and A. C. Tierney, Impact of a Mediterranean diet on hepatic and metabolic outcomes in non-alcoholic fatty liver disease: The MEDINA randomised controlled trial, *Liver Int*, 2022, **42**, 1308-1322.
4. C. Properzi, T. A. O'Sullivan, J. L. Sherriff, H. L. Ching, G. P. Jeffrey, R. F. Buckley, J. Tibballs, G. C. MacQuillan, G. Garas and L. A. Adams, Ad Libitum Mediterranean and Low-Fat Diets Both Significantly Reduce Hepatic Steatosis: A Randomized Controlled Trial, *Hepatology*, 2018, **68**, 1741-1754.

