

## Supplementary

**Supplementary Table S1: Search terms**

<b>Pubmed</b>	
(diabetes [MeSH Terms]) AND (overweight OR obese OR obesity)	#1
(low fat OR vegetarian diet OR Mediterranean OR high protein OR moderate carbohydrate OR low-carbohydrate diet OR atkins OR low GI OR low GL OR paleolithic OR DASH OR dietary approaches to stop hypertension)	#2
(HbA1c OR fasting glucose OR body mass index OR body weight OR waist circumference)	#3
(randomized controlled trial OR controlled clinical trial OR randomized controlled trial OR random OR randomly OR randomized OR trial OR clinical trial)	#4
#5=#1 AND #2 AND #3 AND #4	
<b>Embase</b>	
'diabetes':ab,kw,ti	#1
'overweight':ab,kw,ti OR 'obese':ab,kw,ti OR 'obesity':ab,kw,ti	#2
'low fat diet':ab,kw,ti OR 'high-fat diet':ab,kw,ti OR 'diet,vegetarian':ab,kw,ti OR 'mediterranean':ab,kw,ti OR 'high protein diet':ab,kw,ti OR 'moderate carbohydrate':ab,kw,ti OR 'low-carbohydrate diet':ab,kw,ti OR 'atkins diet':ab,kw,ti OR 'glycemic indices':ab,kw,ti OR 'glycaemic load':ab,kw,ti OR 'low GI':ab,kw,ti OR 'low GL':ab,kw,ti OR 'diet, paleolithic':ab,kw,ti OR 'paleolithic diet':ab,kw,ti OR 'DASH':ab,kw,ti OR 'dietary approaches to stop hypertension':ab,kw,ti	#3
'glucose':ab,kw,ti OR 'blood glucose':ab,kw,ti OR 'glycemic':ab,kw,ti OR 'glycaemic':ab,kw,ti OR 'body mass index':ab,kw,ti OR 'BMI':ab,kw,ti OR 'body weight':ab,kw,ti OR 'waist circumference':ab,kw,ti	#4
'randomized controlled trial':ab,kw,ti OR 'controlled clinical trial':ab,kw,ti OR 'randomized controlled trial':ab,kw,ti OR 'random':ab,kw,ti OR 'randomly':ab,kw,ti OR 'randomized':ab,kw,ti OR 'trial':ab,kw,ti OR 'clinical trial':ab,kw,ti	#5
#6=#1 AND #2 AND #3 AND #4 AND #5	

<b>Cochrane CENTRAL</b>	
(diabetes)	<b>#1</b>
(overweight OR obese OR obesity)	<b>#2</b>
(low-carbohydrate OR low-fat OR high-protein OR vegetarian OR Mediterranean OR DASH OR dietary approaches to stop hypertension OR glycaemic index OR glycaemic load OR Palaeolithic OR low-calorie OR atkins)	<b>#3</b>
(HbA1c OR fasting glucose OR body mass index OR body weight OR waist circumference)	<b>#4</b>
(randomized controlled trial OR controlled clinical trial OR randomized controlled trial OR random OR randomly OR randomized OR trial OR clinical trial)	<b>#5</b>
#6=#1 AND #2 AND #3 AND #4 AND #5	

**Supplementary Table S2: Criteria for diet category classification**

Low carbohydrate diet	25% carbohydrates of total energy intake, high intake of animal and/or plant protein; often high intake of fat <sup>[1]</sup> .
Moderate-carbohydrate diet	25–45% carbohydrates of total energy intake; 10–20% protein intake <sup>[2]</sup> .
High protein diet	>20% protein intake of total energy intake; high intake of animal and/or plant protein; <35% fat <sup>[3]</sup> .
Low fat diet	<30% fat of total energy intake; 10–15% protein intake <sup>[4]</sup> .
Low GI/GL diet	Intervention focusing on low glycemic index or load <sup>[5,6]</sup> .
Vegetarian diet	Vegan or vegetarian dietary pattern: exclusion of meat and fish from the diet <sup>[7]</sup> .
Mediterranean diet	fruit, vegetables, olive oil, legumes, cereals, fish, and moderate intake of red wine during meals <sup>[8,9]</sup> .
Control diet	no intervention or minimum levels of intervention <sup>[10]</sup> .

GI/GL, glycaemic index/load.

**Supplementary Table S3: Eligibility criteria for inclusion in the systematic literature search**

Inclusion criteria	Exclusion criteria
Randomized controlled trial	Randomised controlled trials which included pregnant women
Population with T2DM and overweight or obesity, following the diagnosis criteria of the American Diabetes Association or according to the internationally recognized standards for patients with T2DM and overweight or obesity <sup>a</sup>	Studies with an exercise or medication cointervention that was not applied in all groups
Comparison between full dietary pattern and an alternative dietary pattern or usual diet	Intervention studies using dietary supplements as placebo
Primary outcomes include one or more of: HbA1c Body weight	Interventions using very low energy diets (i.e., <600 kcal/day)
Minimum follow-up 12 weeks	
Participants aged $\geq 18$ years	

<sup>a</sup>: Obesity was defined as BMI  $\geq 28$  kg/m<sup>2</sup> in Asia and BMI  $\geq 30$  kg/m<sup>2</sup> in Europe and the Americas and overweight was defined as BMI 24-28 kg/m<sup>2</sup> in Asia and BMI 25-29.9 kg/m<sup>2</sup> according to the World Health Organization<sup>[11]</sup>. BMI, body mass index.

**Supplementary Table S4: Definition of outcomes**

Outcome	Definition/Description	Property
HbA1c	Follow-up-end HbA1c; The unit of HbA1c was standardized as a percentage (DCCT units) and IFCC units (mmol/mol) was converted to DCCT units by the online tool: <a href="http://www.ngsp.org/convert1.asp">http://www.ngsp.org/convert1.asp</a> .	Continuous variable/ objective outcome
Fasting glucose	Follow-up-end fasting glucose; The unit of FBG was standardized as “mmol/l” and 1 mg/dl was converted to 0.0555 mmol/l.	Continuous variable/ objective outcome
Body weight	Follow-up-end body weight; The unit of body weight was kg.	Continuous variable/ objective outcome
BMI	Follow-up-end BMI; The unit of body weight was kg/m <sup>2</sup> . (BMI = weight/height squared, weight unit as “kg” and height unit as “m”)	Continuous variable/ objective outcome
waist circumference	Follow-up-end waist circumference; The unit of waist circumference was cm.	Continuous variable/ objective outcome

## Supplementary Table S5: Full-text articles excluded, with reasons

(n=83)

Reference	Reason for exclusion
[12]	Not type 2 diabetes
[13]	Not type 2 diabetes
[14]	Not type 2 diabetes
[15]	Not RCT
[16]	Long-term follow-up available
[17]	Not type 2 diabetes
[18]	Not type 2 diabetes
[19]	Other intervention
[20]	Diabetes without overweight or obesity
[21]	Not type 2 diabetes
[22]	Not type 2 diabetes
[23]	Other intervention
[24]	Diabetes without overweight or obesity
[25]	Not type 2 diabetes
[26]	Not type 2 diabetes
[27]	No relevant outcomes
[28]	Conference abstract
[29]	Not type 2 diabetes
[30]	Not type 2 diabetes
[31]	Not type 2 diabetes
[32]	Interventions duration <12 week
[33]	Conference abstract
[34]	Diabetes without overweight or obesity
[35]	Diabetes without overweight or obesity
[36]	No relevant outcomes
[37]	Long-term follow-up available
[38]	Conference abstract
[39]	Diabetes without overweight or obesity
[40]	Very low-calorie diets
[41]	Other intervention
[42]	Long-term follow-up available
[43]	Conference abstract
[44]	No relevant outcomes
[45]	Interventions duration <12 week
[46]	Diabetes without overweight or obesity
[47]	No relevant outcomes
[48]	Interventions duration <12 week
[49]	Very low-calorie diets
[50]	Very low-calorie diets
[51]	Interventions duration <12 week
[52]	Interventions duration <12 week
[53]	Diabetes without overweight or obesity
[54]	Diabetes without overweight or obesity

[55]	Diabetes without overweight or obesity
[56]	Other intervention
[57]	Interventions duration <12 week
[58]	No relevant outcomes
[59]	Conference abstract
[60]	Diabetes without overweight or obesity
[61]	Interventions duration <12 week
[62]	Diabetes without overweight or obesity
[63]	Other intervention
[64]	No relevant outcomes
[65]	Conference abstract
[66]	Diabetes without overweight or obesity
[67]	No relevant outcomes
[68]	No relevant outcomes
[69]	Diabetes without overweight or obesity
[70]	Same study already included
[71]	Other intervention
[72]	Very low-calorie diets
[73]	Conference abstract
[74]	Diabetes without overweight or obesity
[75]	Interventions duration <12 week
[76]	No relevant outcomes
[77]	Interventions duration <12 week
[78]	Diabetes without overweight or obesity
[79]	Other intervention
[80]	Review or meta-analysis
[81]	Diabetes without overweight or obesity
[82]	Comment
[83]	No relevant outcomes
[84]	Report
[85]	Diabetes without overweight or obesity
[86]	Diabetes without overweight or obesity
[87]	Interventions duration <12 week
[88]	No relevant outcomes
[89]	No relevant outcomes
[90]	Other intervention
[91]	Diabetes without overweight or obesity
[92]	Diabetes without overweight or obesity
[93]	Diabetes without overweight or obesity
[94]	Interventions duration <12 week

**Supplementary Table S6: General study characteristics of the included trials investigating the effects of dietary approaches on blood glucose and body weight.**

Reference	Country	Patients	Duration, months	Energy restricted	Mean age	Female (%)	Primary outcomes	Sample size	Diet (detail)
AlFaris 2020	Saudi Arabia	overweight or obesity (BMI $\geq$ 25 kg/m <sup>2</sup> ), type 2 diabetes	3	1,600 kcal /d	25~60	100	BMI	13	Low-Fat: Daily meal plans of the low-fat diet were composed of five balanced meals (three main meals and two snacks) and provide 1,600 kcal per day; where 50%–60%, 20%–30%, and 12%–20% of daily energy derives from carbohydrate, fat, and protein, respectively. As well as high-fiber carbohydrate sources were used.
								13	Control: subjects did not receive any nutrition education, meal plans, or any supplement.
Brehm 2008	USA	BMI: 27–40 kg/m <sup>2</sup> , type 2 diabetes	12	200–300 calories/d	56.5 $\pm$ 0.8	67	HbA1c, fasting glucose, body weight	52	Moderate-Carbohydrate: 45% carbohydrate, 15% protein, 40% fat (with 20% MUFA). Meal plans included the following food groups: starches, fruits, vegetables, low-fat dairy products, meat/ meat



									substitutes, and fat.
						60		43	Low-Fat: 60% carbohydrate, 15% protein, 25% fat. The low-fat diet included fewer servings of starches, fruit, and meat/meat substitutes and more servings of fat (emphasizing olive and canola oils); it also included an additional food group of beans, legumes, and nuts.
Brinkworth 2004	Australia	overweight or obese adult subjects (BMI: 27–40 kg/m <sup>2</sup> ), type 2 diabetes	15	8-week energy restriction period (~1600 kcal/d or 30% caloric restriction)	60.9±7.85	58	HbA1c, fasting glucose, body weight	19	High Protein: 30% protein, 40% carbohydrate, 30% fat. Both diets were matched for fatty acid profile (8% saturated fatty acids, 12% monounsaturated fatty acids, 5% polyunsaturated fatty acids) and dietary fibre intake (~30 g/day).
					62.7±7.85	63		19	Low-Fat: 15% protein, 55% carbohydrate, 30% fat.
Daly 2006	United Kingdom	Obese subjects (BMI ≥ 30 kg/m <sup>2</sup> ),	3	NA	58.2±9.8	51	HbA1c, body weight	40	Low-Carbohydrate: consisting of up to 70 g of carbohydrate per day, at least half a pint of milk and one piece of fruit. (~26.4% protein, ~33.5% carbohydrate, ~40.1% fat)

		type 2 diabetes			59.1±9.24	53		39	Low-Fat: healthy eating advice, focusing on reducing fat intake. (~20.9% protein, ~45.2% carbohydrate, ~32.9% fat)
Davis 2009	USA	Obese (BMI ≥ 30 kg/m <sup>2</sup> ), type 2 diabetes	12	NA	54±6	82	HbA1c, body weight	47	Low-Carbohydrate: modeled after the Atkins diet and was initiated with a 2-week phase of carbohydrate restriction of 20–25 g daily depending on baseline weight. As participants lost weight, they were able to increase carbohydrate intake at 5 g increments each week. (~22.7% protein, ~33.4% carbohydrate, ~43.9% fat)
					53±7	74		44	Low-Fat: modeled after that in the Diabetes Prevention Program. Participants received a fat gram goal, which was 25% of energy needs, based on baseline weight. (~18.9% protein, ~50.1% carbohydrate, ~30.8% fat)
Elhayany 2010	Israel	type 2 diabetes, BMI: 27–34	12	NA	56.5±6.3	47	HbA1c, fasting glucose, body	124	Mediterranean I: (50% carbohydrate, 30g fibre, 20% protein, 30% fat: of which 10% MUFA, 12% PUFA and 7% SFA)

		kg/m <sup>2</sup>			56.0±6.1	51	weight, BMI, waist circumference		Mediterranean II: (35% carbohydrate, 30g fibre, 20% protein, 45% fat: of which 23% MUFA, 15% PUFA and 7% SFA).
								55	Low-Fat: 50% carbohydrates, 15g fibre, 30% fat-of which 10% MUFA, 12% PUFA and 7% SFA - 20% protein.
Esposito 2009	Italy	BMI > 25 kg/m <sup>2</sup> , type 2 diabetes	48	1500 kcal/d for women and 1800 kcal/d for men	52.4±11.2	50	HbA1c, fasting glucose, body weight, BMI, waist circumference	108	Mediterranean: rich in vegetables and whole grains and low in red meat, which was replaced with poultry and fish, no more than 50% of calories from complex carbohydrates, based on evidence that, in the context of a Mediterranean diet, a carbohydrate content less than 50% of daily energy is more beneficial than higher content for weight loss and cardiovascular risk reduction. The diet had no less than 30% calories from fat. The main source of added fat was 30 to 50 g of olive oil.
					51.9±10.7	51.5		107	Low-Fat: rich in whole grains and restricted additional fats, sweets,

									and high-fat snacks, no more than 30% of calories from fat and no more than 10% of calories from saturated fat.
Fabricatore 2011	USA	type 2 diabetes and a BMI of 27–45 kg/m <sup>2</sup>	10	NA	52.8±8.85	80	HbA1c, fasting glucose, body weight, waist circumference	24	Low-GI/GL: consuming ≤ 3 and ≤1 serving per day of moderate-GI and high-GI items, respectively over 2 weeks. (~44% carbohydrate, ~36% fat, ~20% protein)
					52.5±8.12	79.5		26	Low-Fat: <30% of energy from fat (i.e., 40-50 g/d and 50-60 g/d for participants in the 5024-6280 kJ/d and 6280-7536 kJ/d ranges, respectively) ~50% carbohydrate, ~30% fat, ~20% protein
Andrews 2011	United Kingdom	type 2 diabetes, BMI > 25 kg/m <sup>2</sup>	12	yes	60.1±10.2	36	HbA1c, body weight, BMI, waist circumference	246	Low-Fat: Based on the Diabetes UK dietary guidelines the lower ranges of energy density, fat content, and glycaemic index.
				unrestricted	59.5±11.1	37		93	Control: standard dietary and exercise advice.
Heilbronn 1999	Australia	obese patients with type 2	3	30% energy restriction	58.7±9.01	85	HbA1c, fasting glucose	13	Moderate-Carbohydrate: 49% carbohydrate, 33% fat, 18% protein. Key foods for the moderate-carbohydrate diet were

		diabetes			57.5±11.7 8	75		12	skim milk, raisins, and low-fat biscuits.  Low-Fat: 73% carbohydrate, 10% fat, 17% protein. Key foods for the low-fat diet were skim milk, almonds, and unsaturated fat biscuits.
Iqbal 2010	USA	type 2 diabetes, a BMI of ≥30 kg/m <sup>2</sup>	24	without restrictions caloric intake	60.0±8.9	15.7	HbA1c, fasting glucose, body weight	28	Low-Carbohydrate: carbohydrate intake of 30 g/d, encouraged to select whole grain products and foods with a high fiber content and to minimize the intake of saturated and trans fats. (~48% carbohydrate, ~35% fat, ~17% protein)
				a deficit of 500 kcal/d	60.0±9.5	5.4		40	Low-Fat: <7% of total calories from saturated fats, <300 mg of dietary cholesterol daily, increase their intake of fruits and vegetables. (~47% carbohydrate, ~35% fat, ~18% protein)
Jenkins 2022	Canada	BMI > 27 kg/m <sup>2</sup> , type 2 diabetes	3	2000 kcal/d	59±8.6	54.2	HbA1c, fasting glucose, body weight,	70	Vegetarian: a canola oil–enriched bread and high-protein simulated meat products, emphasized fruit, vegetables, and low-fat dairy products, with avoidance of meat

							BMI, waist circumference		and snack foods, wholewheat bread and with liquid egg whites to reduce dietary cholesterol intake. (~36% carbohydrate, ~24% protein, ~40% fat)
					58±11.7	54.3		68	Low-Fat: ~50% carbohydrate, ~20% protein, ~30% fat.
Krebs 2012	New Zealand	type 2 diabetes, BMI at least 27 kg/m <sup>2</sup>	24	500 kcal/d energy deficit	57.7±9.9	54	HbA1c, fasting glucose, body weight, BMI, waist circumference	63	High Protein: 30% protein, 40% carbohydrate, 30% fat.
					58.0±9.2	66		61	Low-Fat: 15% protein, 55% carbohydrate, 30% fat.
Larsen 2011	Australia	type 2 diabetes, BMI: 27–40 kg/m <sup>2</sup>	12	1500 kcal /d, or 30% energy restriction for 3 months; followed by 9 months of energy	59.6	43	HbA1c, body weight, waist circumference	53	High Protein: 30% protein (a combination of lean meat, chicken and fish) and 40% carbohydrate, 30% fat (7% saturated fat, 10% polyunsaturated fat, 13% monounsaturated fat).
					58.8	61		46	Low-Fat: 15% protein, 55% carbohydrate, 30% fat (7% saturated fat, 10% polyunsaturated fat, 13% monounsaturated fat).

				balance					
Li 2016	China	type 2 diabetes, meeting the Chinese criteria of overweight (body mass index $\geq 24$ kg/m <sup>2</sup> )	12	2275 kcal for men and 1890 kcal for women	59.73 $\pm$ 6.5 3	47	HbA1c, fasting glucose, body weight, BMI	76	Low-Fat: 60% carbohydrate, 22% fat, 18% protein.
					59.00 $\pm$ 3.9 4	35		59	Control: no dietary intervention (50% carbohydrate, 31% fat, 19% protein)
Li 2022	China	type 2 diabetes, BMI $\geq 25$ kg/m <sup>2</sup>	3	1500 $\pm$ 50 kcal/d	36.50 $\pm$ 13. 67	NA	HbA1c, fasting glucose, body weight, BMI, waist circumference	24	Low-Carbohydrate: olive oil, butter, fried eggs, double-fried pork, pan-fried salmon, pacific saury, sardines, broccoli, avocado, and so on, and daily limits for ingredients were as follows: carbohydrate 30-50 g, protein 60 g, fat 130 g, and total calories (1500 $\pm$ 50) kcal.
					37.10 $\pm$ 14. 02			29	Low-Fat: foods were not limited, and daily limits for ingredients

									were as follows: carbohydrate 250-280 g, protein 60 g, fat 20 g, total calories (1500 ±50) kcal.
Mclaughlin 2007	USA	type 2 diabetes, BMI: 27–36 kg/m <sup>2</sup>	4	750 kcal/d energy deficit	57±7	43	fasting glucose, body weight, BMI, waist circumference	14	Moderate-Carbohydrate: 40% carbohydrate, 45% fat, 15% protein.
					56±7	40		15	Low-Fat: 60% carbohydrate, 25% fat, 15% protein.
Mishra 2013	USA	BMI > 25 kg/m <sup>2</sup> , type 2 diabetes	4.5	with no restriction on energy intake	44.3±15.3	77	HbA1c, body weight, BMI	94	Vegetarian: whole grains, vegetables, legumes, and fruits, minimize added oils, with a target of 0.3 g of fat per serving, favor foods with a low glycemic index (~55% carbohydrate, ~30% fat, ~15% protein)
					46.1±13.6	88		117	Control: no dietary changes (~47% carbohydrate, ~36% fat, ~17% protein)
Mollentze 2019	South Africa	type 2 diabetes, BMI ≥ 35 kg/m <sup>2</sup>	3	NA	55.64±7.72	0	HbA1c, fasting glucose, body weight, BMI, waist	9	Low-Fat: primarily consisting of vegetables supplemented with a vegetable soup-based meal plan (CSN weight loss program-in this trial without aloe containing drink, barley grass, or green powder).



					54.53±6.48	0	circumference	7	Control: energy-restricted meal plan aimed at weight reduction of 0.5–1.0 kg per week.
Parker 2002	Australia	obese patients with type 2 diabetes	3	8-week energy restriction component (1,600 kcal), a 4-week energy balance	60.33±8.13	65	HbA1c, fasting glucose, body weight, BMI, waist circumference	26	High Protein: 30% protein, 40% carbohydrate, 30% fat.
					62.08±10.52	64		28	Low-Fat: 15% protein, 60% carbohydrate, 25% fat.
Pedersen 2014	Australia	overweight or obese (BMI > 27 kg/m²), type 2 diabetes	12	energy content reduced to 1433 kcal/d	59.4±10.8	29	HbA1c, fasting glucose, body weight, BMI	21	High protein: 30% protein, 30% fat, 40% carbohydrate.
					62.4±8.33	17		24	Low-Fat: 20% protein, 30% fat, 50% carbohydrate.
Rock 2014	USA	type 2 diabetes, BMI: 25–45 kg/m²	12	Low Fat and Moderate - carbohydrate	57.3±8.6	48.1	HbA1c, fasting glucose, body weight,	77	Moderate-Carbohydrate: 45% carbohydrates, 30% fat, 25% protein.
					55.5±9.2	47.3		74	Low-Fat: 60% carbohydrates, 20% fat, 20% protein.

				rate 1,200– 2,000 kcal/d	56.8±9.3	57.9	BMI, waist circumference	76	Control: two weight loss counseling sessions, a deficit of 500–1,000 kcal/d to achieve a weight loss, the Dietary Guidelines for Americans average 30% fat, average 55% carbohydrates, average 15% protein.
Shige 2000	Australia	overweight subjects with NIDDM	3	30% energy restriction	58.1± 9	79	HbA1c, body weight, waist circumference	12	Moderate-Carbohydrate: 50% carbohydrate, 18% protein, 32% fat.
					57.5±11.8			12	Low-Fat: 73% carbohydrate, 17% protein, 9% fat.
Tay 2015	Australia	overweight subjects with NIDDM	13	500-1000 kcal/d deficit	58±7	36	HbA1c, fasting glucose, body weight, BMI, waist circumference	41	Low-Carbohydrate: 14% carbohydrate (< 50 g/d), 28% protein and 58% total fat (35% monounsaturated fat and 13% polyunsaturated fat).
					58±7	49		37	Low-Fat: 53% carbohydrate, 17% protein, <30% total fat (15% monounsaturated fat and 9% polyunsaturated fat).
Vetter 2010	USA	type 2 diabetes, BMI> 30 kg/m <sup>2</sup>	6	<30 g/d without limitations on fat	60.8±10.3	18.2	HbA1c, body weight, waist	37	Low-Carbohydrate: <30 g/d without limitations on fat or caloric intake. (~156g carbohydrate, ~86g protein, ~93g

				or caloric intake					fat)
				≤30% calories from fat and a deficit of 500 kcal/d	58.6±9.2	4.8	circumference	42	Low-Fat: ≤30% calories from fat and a deficit of 500 kcal/d. (~174g carbohydrate, ~85g protein, ~65g fat)
Watson 2016	Australia	overweight/obese (BMI > 25 kg/m <sup>2</sup> ), T2DM	6	energy restriction ~1433–1672 kcal/d	54±8	47	HbA1c, fasting glucose, body weight, BMI, waist circumference	21	High Protein: 33% carbohydrate, 32% protein, 30% fat.
					55± 8	45		21	Low-Fat: 51% carbohydrate, 22% protein, 22% fat.
Weber 2022	Denmark	overweight or obesity (BMI > 25 kg/m <sup>2</sup> ), T2DM	6	NA	66.9 ±6.9	39	HbA1c, fasting glucose, body weight, BMI	28	High Protein: 30% carbohydrates, 30% protein, 40% fat.
					67.0±8.4	52		31	Moderate-Carbohydrate: 50% carbohydrates, 17% protein, 33% fat.
Westman 2008	USA	type 2 diabetes,	6	with 55% of daily	51.8±7.8	80.4	HbA1c, fasting	29	Low-GI/GL: restrict intake of dietary carbohydrate to fewer than

		BMI: 27–50 kg/m <sup>2</sup>		caloric intake from carbohyd rate			glucose, body weight, BMI, waist circumfe nce		20 grams per day, unlimited amounts of animal foods and eggs; limited amounts of hard cheese, fresh cheese, salad vegetables, and non-starchy vegetables.
				without restrictin g caloric intake	51.8±7.3	76.3		21	Low-Carbohydrate: 55% of daily caloric intake from carbohydrate.
Wolever 2008	Canada	T2DM, BMI: 24–40 kg/m <sup>2</sup>	12	500 kcal/d if the subject wished to lose weight	60.6±1.0	66	HbA1c, body weight, waist circumfe nce	48	Low-GI/GL: GI 55, 52% carbohydrate, 27% fat.
					58.6±1.2	47		55	Moderate-Carbohydrate: GI 59, Carbohydrate 39%, fat 40%.
					60.4±1.1	50		53	Low-Fat: GI 63, 47% carbohydrate, 31% fat.
Wycherley 2010	Australia	overweig ht/obese (BMI 35.3±4.5 kg/m <sup>2</sup> , type 2 diabetes	4	female subjects 1434 kcal/d, male subjects 1673 kcal/d	56.1±7.5	NA	HbA1c, fasting glucose, body weight, BMI, waist circumfe nce	12	High Protein: 43% carbohydrate, 33% protein, 22% fat.
								16	Low-Fat: 53% carbohydrate, 19% protein, 26% fat.

Kahleova 2010	Czech Republic	type 2 diabetes, BMI between 25 and 53 kg/ m <sup>2</sup>	6	calorie restricted 500 kcal/ d	54.6±7.8	54	HbA1c, fasting glucose, body weight, BMI, waist circumference	37	Vegetarian: 60% carbohydrate, 15% protein, 25% fat.
					57.7±4.9	51		37	Low-Fat: 50% carbohydrate, 20% protein, 30% fat.

**Supplementary Table S7: Study characteristics including presence of comorbidities, medication status, average risk of bias, and drop out of the included trials.**

Reference	Dietary pattern	drop out (%)	Mean baseline HbA1c	Mean baseline body weight(kg)	Mean baseline BMI (kg/m <sup>2</sup> )	Risk of bias	Presence of comorbidities (%)	Hypoglycaemic drugs (%)	Antihypertensive medication (%)	Lipid lowering medication (%)
AlFaris 2020	Low-Fat	0	NA	NA	36.7 ±9.5	Unclear	NA	NA	NA	NA
	Control				36.3 ±7.8					
Andrews 2011	Low-Fat	1	6.64±0.93	90.2±16.7	31.5±5.7	Low	NA	39.5	67.7	65.3
	Control	7	6.72±1.02	93.9±19	32.3±5.9			35.4	58.6	63.6
Brehm 2008	Moderate- Carbohydrate	31	7.2±0.72	102.1±14.42	35.9±3.34	Unclear	NA	NA	NA	NA
	Low-Fat	16	7.4±0.66	103.7±18.36						

Brinkworth 2004	High Protein	42	6.5±0.87	96.2±17.44	33.6±5.23	High	NA	45 hypoglycaemic medication, 8 insulin.	47	42
	Low-Fat	39	6.2±0.87	91.2±18.74	33.3±5.67					
Daly 2006	Low-Carbohydrate	22	9.00±1.26	101.6±11.64	35.4±4.43	High	NA	40 taking oral hypoglycaemic agents, 20 on insulin and 40 using a combination of the two.	NA	NA
	Low-Fat	24	9.11±1.06	102.3±15.55	36.7±7.87					
Davis 2009	Low-Carbohydrate	15	7.5±1.5	93.6±18	35±6	Unclear	NA	78 metformin, 44 sulfonylurea, 35 insulin.	NA	62
	Low-Fat	12	7.4±1.4	101±19	37±6			86 metformin, 52 sulfonylurea, 24 insulin.		56
Elhayany 2010	Mediterranean	29	8.3±1.0	86.1±12.5	31.2±2.8	Unclear	NA	NA	NA	NA
	Low-Fat	35	8.3±0.8	87.9±13.7	31.8±3.3					
Esposito 2009	Mediterranean	9	7.75±0.9	86.0±10.4	29.7±3.4	Low	NA	NA	24	15
	Low-Fat	9	7.71±0.9	85.7±9.9	29.5±3.6				23.3	16
Fabricatore 2011	Low-GI/GL	40	6.6±1.26	102.3±17.08	36.7±5.06	High	NA	NA	NA	NA
	Low-Fat	33	7.0±1.25	99.1±14.36	35.8±4.37					
Heilbronn 1999	Moderate-Carbohydrate	0	7.75±0.49	NA	33.6±3.14	Unclear	NA	54	NA	NA

	ate									
	Low-Fat		8.51±0.41	NA	32.6±4.68			42		
Iqbal 2010	Low-Carbohydrate	60	7.9±1.7	118.3±21.3	38.1±5.5	High	Coronary artery disease 27.1, Congestive heart failure 7.1.	84.3 oral medications, 22.9 insulin.	62.9	45.7
	Low-Fat	46	7.6±1.3	115.5±16.7	36.9±5.3		Coronary artery disease 25.7, Congestive heart failure 14.9.	85.1 oral medications, 29.7 insulin.	68.9	62.2
Jenkins 2022	Vegetarian	16	7.28±0.55	95.0±17.3	34.5±4.8	Low	NA	100	77	70
	Low-Fat	16	7.23±0.47	90.6±16.9	32.8±4.5			100	77	72
Krebs 2012	High Protein	30	8.1±1.2	103.4±19.7	36.6±6.7	Low	NA	56 oral agents, 24.6 insulin + oral agents.	77.3	61.8
	Low-Fat	29	8.0±1.2	101.9±20.1	36.7±6.4			57.4 oral agents, 28.7 insulin + oral agents.	74.5	69.3
Larsen 2011	High Protein	9.2	7.89±0.94	94.6±15.06	27~40	Low	NA	72 tablets, 19 insulin.	NA	NA
	Low-Fat	2	7.78±0.93	95.5±13.64				74 tablets, 15 insulin.		
Li 2016	Low-Fat	4	8.10±1.77	73.77±8.58	27.19±2.82	Low	NA	57 oral diabetic medication, 17.7 insulin injection,	NA	NA

								16.4 combined treatment.		
	Control	2	8.05±1.52	71.54±5.82	25.17±0.89			53.3 oral diabetic medication, 20 insulin injection, 18.3 combined treatment.		
Li 2022	Low-Carbohydrate	20	8.74±1.63	78.32±15.27	29.04±5.81	Unclear	NA	0	NA	NA
	Low-Fat	3.3	8.69±1.59	77.95±14.76	29.75±6.07			0	NA	NA
Mclaughlin 2007	Moderate-Carbohydrate	0	NA	95±16.6	31.4±2.4	Unclear	NA	NA	NA	NA
	Low-Fat			90±15.2	31.0±2.4					
Mishra 2013	Vegetarian	34	7.54±1.92	96.5±22.64	34.7±7.15	High	NA	NA	NA	NA
	Control	22	7.05±1.50	96.4±23.19	35.3±8.54					
Mollentze 2019	Low-Fat	0	8.9±1.74	131.7±20.51	41.3±4.41	Unclear	88.9 dyslipidemia, 22 hypertriglyceridemia, 77.8 hypertension, 22 ischemic heart disease.	NA	NA	NA
	Control	22	9.1±1.53	125.4±26.04	40.1±6.46		88.9	NA	NA	NA



							dyslipidemia, 22 hypertriglyceridemia, 77.8. hypertension, 0 ischemic heart disease.			
Parker 2002	High Protein	0	6.42±0.83	97.7±17.4	34.8±5.7	Unclear	NA	48 hypoglycaemic agents, 7 insulin.	NA	NA
	Low-Fat		6.3±0.77	91.4±18.2	33.3±5.1					
Pedersen 2014	High protein	41	7.5±0.92	108.1±22.91	36±5.04	High		91	100	NA
	Low-Fat		7.1±0.98	104.7±18.62	35±3.92				100	
Rock 2014	Moderate-Carbohydrate	11	7.3±1.4	106.4±18.3	36.2±4.7	Low	77.9 hypertension, 70.1 high cholesterol, 5.2 coronary artery disease.	90 oral hypoglycemic, 13 insulin.	84	68
	Low-Fat	13	7.5±1.2	105.4±17.8	36.2±4.3		62.2 hypertension, 62.2 high cholesterol, 6.8 coronary artery	84 oral hypoglycemic, 26 insulin.	70	66

	Control	14	7.4±1.1	104.6±16.9	36.3±4.4		disease. 75 hypertension, 73.7 high cholesterol, 1.3 coronary artery disease.	82 oral hypoglycemic, 16 insulin.	79	75
Shige 2000	Moderate-Carbohydrate	0	7.9±1.8	90.9±8.6	33.1±2.8	Unclear	NA	NA	NA	NA
	Low-Fat		8.5±1.4	89.1±15.7	32.6±4.7					
Tay 2015	Low-Carbohydrate	29	7.3±1.1	101.7±14.4	34.2±4.5	Low	NA	10 insulin, 79 metformin, 34 sulfonylureas, 5 thiazolidinediones.	71	60
	Low-Fat	35	7.4±1.1	101.6±15.8	35.1±4.1			11 insulin, 72 metformin, 28 sulfonylureas, 5 thiazolidinediones.	61	63
Vetter 2010	Low-Carbohydrate	49	8.1±1.8	118.7±24.4	38.2±6.0	Unclear	73 hypertension, 56.8 hyperlipidemia, 27 coronary	20 insulin, 71.4 metformin, 14.3 thiazolidinedione, 65.7 sulfonylurea.	NA	NA

							artery disease.			
	Low-Fat	42	7.3±1.5	115.4±22.3	36.1±4.6		78.6 hypertension, 76.2 hyperlipidemia, 31 coronary artery disease.	32.4 insulin, 52.9 metformin, 17.7 thiazolidinedione, 55.9 sulfonylurea.		
Watson 2016	High Protein	28	8.0±1.3	97.3±17.1	34.3±5.4	Low	NA	58 metformin, 16 sulphonylureas, 19 insulin.	61	52
	Low-Fat	28	8.1±1.5	101.5±16.6	34.4±4.7			64 metformin, 18 sulphonylureas, 21 insulin.	43	64
Weber 2022	High Protein	9	7.37±2.76	98.8±13.4	34.0±4.7	Low	NA	75	92	86
	Moderate-Carbohydrate	22	7.43±2.86	97.4±25.9	33.0±5.2			65	68	77
Westman 2008	Low-GI/GL	44.7	8.3±1.9	105.2±19.8	37.9±6.0	Low	NA	75.9 oral agents or insulin.	NA	NA
	Low-Carbohydrate	37	8.8±1.8	108.4±20.5	37.8±6.7			95.2 oral agents or insulin.	NA	NA

Wolever 2008	Low-GI/GL	20	6.2±5.54	81.1±17.32	31.6±4.16	Low	NA	0	48	43
	Moderate-Carbohydrate	19	6.1±0.9	84.7±2.6	31.1±0.6			0	48	43
	Low-Fat	21	6.2 ±1	84.5±2.5	30.1±0.6			0	48	43
Wycherley 2010	High Protein	43	8.0±1.8	102.7±15.4	35.6±3.8	Unclear	NA	58	33	42
	Low-Fat	16	7.6±1.0	97.0±10.6	34.8±4.9			69	56	56
Kahleova 2010	Vegetarian	16	7.6±1.4	101.1±17.1	35.1±6.1	High	NA	78 metformin, 54 sulphonylurea, 19 thiazolidinedione, 22 other.	68	59
	Low-Fat	16	7.7±1.2	100.8±17.8	35.0±4.6			76 metformin, 35 sulphonylurea, 14 thiazolidinedione, 8 other.	59	43

**Supplementary Table S8: Percentage contribution of each direct estimate derived from direct (blue) and indirect (purple) comparisons for HbA1C (upper-right) and fasting glucose (bottom-left).**

Vegetarian	0	100	0	100	0	100	36.7	63.3	0	100	0	100	34	66
0	100	Moderate-Carbohydrate	0	100	91.8	8.2	41.1	58.9	0	100	2.1	97.9	27.1	72.9
0	100	0	100	Mediterranean	0	100	100	0	0	100	0	100	0	100
0	100	0	100	0	100	Low-GI/GL	2.8	97.2	4.5	95.5	0	100	0	100
100	0	58.6	41.4	100	0	87.8	12.2	Low-fat	81.4	18.6	95.2	4.8	47.7	52.3
0	100	0	100	0	100	18.5	81.5	60.3	39.7	Low-Carbohydrate	0	100	0	100
0	100	7.3	92.7	0	100	0	100	97.7	2.3	0	100	High Protein	0	100
0	100	47	53	0	100	0	100	29.3	70.7	0	100	0	100	Control

The values upper-right the dietary approaches correspond to the percentage contribution of direct and indirect comparisons between the row and columns for HbA1c (e.g., the percentage contribution of direct comparisons for HbA1c between Low-Carbohydrate diet and Low-Fat diet is 81.4%, and 18.6% for the indirect comparisons). The values bottom-left the dietary approaches correspond to the percentage contribution of direct and indirect comparisons between the column and the rows for fasting glucose (e.g., the percentage contribution of direct comparisons for fasting glucose between Low- Carbohydrate diet and Low-Fat diet is 100%, and 0% for the indirect comparisons). HbA1C, glycosylated hemoglobin A1c. GI/GL, glycaemic index/load.

**Supplementary Table S9: Percentage contribution of each direct estimate derived from direct (blue) and indirect (purple) comparisons for body weight (upper-right) and BMI (bottom-left).**

Vegetarian	0	100	0	100	0	100	33.2	66.8	0	100	0	100	39.7	60.3
0	100	Moderate-Carbohydrate	0	100	82.6	17.4	79.6	20.4	0	100	40.7	59.3	14.3	85.7
0	100	0	100	Mediterranean	0	100	100	0	0	100	0	100	0	100
0	100	0	100	0	100	Low-GI/GL	9.5	90.5	3.3	96.7	0	100	0	100
32.4	67.6	32	68	100	0	0	100	Low-fat	79.1	20.9	26.4	73.6	39.9	60.1
0	100	0	100	0	100	99.7	0.3	99.7	0.3	Low-Carbohydrate	0	100	0	100
0	100	72.7	27.8	0	100	0	100	23.9	76.1	0	100	High Protein	0	100
43.2	56.8	36.2	63.8	0	100	0	100	19.2	80.8	0	100	0	100	Control

The values upper-right the dietary approaches correspond to the percentage contribution of direct and indirect comparisons between the row and columns for body weight (e.g., the percentage contribution of direct comparisons for body weight between Low-Carbohydrate diet and Low-Fat diet is 79.1%, and 20.9% for the indirect comparisons). The values bottom-left the dietary approaches correspond to the percentage contribution of direct and indirect comparisons between the column and the rows for BMI (e.g., the percentage contribution of direct comparisons for BMI between Low-Carbohydrate and Low-Fat diet is 99.7%, and 0.3% for the indirect comparisons). BMI, body mass index. GI/GL, glycaemic index/load.

**Supplementary Table S10: Percentage contribution of each direct estimate derived from direct (blue) and indirect (purple) comparisons for waist circumference.**

Vegetarian	0	100	0	100	0	100	99.6	0.4	0	100	0	100	0	100
	Moderate-Carbohydrate		0	100	40.5	59.5	37.8	62.2	0	100	0	100	15.9	84.1
			Mediterranean		0	100	100	0	0	100	0	100	0	100
					Low-GI/GL		44.2	55.8	49.8	50.2	0	100	0	100
							Low-fat		21.3	78.7	99.9	0.1	62	38
									Low-Carbohydrate		0	100	0	100
											High Protein		0	100
													Control	

The values upper-right the dietary approaches correspond to the percentage contribution of direct and indirect comparisons between the row and columns for waist circumference (e.g., the percentage contribution of direct comparisons for waist circumference between Low-Carbohydrate diet and Low-Fat diet is 21.3%, and 78.7% for the indirect comparisons). GI/GL, glycaemic index/load.

**Supplementary Table S11: Side-splitting approach to assess inconsistency for HbA1c.**

Side	Direct		Indirect		Difference		P> z
	Coef.	Std.Err.	Coef.	Std.Err.	Coef.	Std.Err.	
AD	-0.4692659	0.197333	-0.3717954	0.3731774	-0.0974706	0.422802	0.818
AG	-0.9181662	0.3496028	-0.6446125	0.2754582	-0.2735537	0.4447902	0.539
AH	-0.3499999	0.3723371	-0.7511377	0.2999075	0.4011378	0.4780998	0.401
BD	-0.0996334	0.156555	0.3816408	0.7862835	-0.4812742	0.8017235	0.548
BG	0.0600005	0.7694751	-0.4225142	0.2263569	0.4825147	0.8020782	0.547
CD	0.1032131	0.1587999	1.070076	0.6083065	-0.9668627	0.6286724	0.124
CE	0.4999951	0.5781263	-0.4678053	0.2473232	0.9678005	0.6288074	0.124
DE	-0.5555543	0.2092603	-0.1153491	0.4516281	-0.4402052	0.4973615	0.376
DF*	-0.333182	0.2140301	0.9159786	28.51699	-1.249161	28.51778	0.965
DG	-0.2337029	0.1630055	-0.7553647	0.4588882	0.5216619	0.4989387	0.296
DH	-0.2414659	0.2314263	0.16018	0.4175114	-0.4016459	0.4781312	0.401
EG	0.0102198	0.2824487	0.3928234	0.3249962	-0.3826036	0.4305533	0.374
*Warning: all the evidence about these contrasts comes from the trials which directly compare them.							

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load, H=Vegetarian.



**Supplementary Table S12: Side-splitting approach to assess inconsistency for fasting glucose.**

Side	Direct		Indirect		Difference		P> z
	Coef.	Std.Err.	Coef.	Std.Err.	Coef.	Std.Err.	
AD*	-1.40789	0.3436945	-1.665667	1.015935	0.2577775	1.072152	0.81
AG	-1.580969	0.5215233	-1.962623	0.4538243	0.3816537	0.6757337	0.572
BD	-0.1922739	0.1907071	0.5336433	0.762688	-0.7259171	0.7909834	0.359
BG	0.1	0.7318272	-0.6259832	0.3001579	0.7259832	0.7909905	0.359
CD	0.0202298	0.3737676	0.6899926	0.9143859	-0.6697628	0.9878278	0.498
CE	-0.4099997	0.8323118	-1.079769	0.5320362	0.6697691	0.9878286	0.498
DE	-1.1	0.3786292	-0.4302184	0.9123826	-0.6697816	0.9878269	0.498
DF*	-0.7656038	0.3039493	3.086955	755.8061	-3.852559	755.8062	0.996
DG	-0.510387	0.2040551	0.5920537	0.6327595	-1.102441	0.6747474	0.102
DH*	0.0316766	0.3287423	2.59695	771.5742	-2.565274	771.5743	0.997
* Warning: all the evidence about these contrasts comes from the trials which directly compare them							

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load, H=Vegetarian.

**Supplementary Table S13: Side-splitting approach to assess inconsistency for body weight.**

Side	Direct		Indirect		Difference		P> z
	Coef.	Std.Err.	Coef.	Std.Err.	Coef.	Std.Err.	
AD	-2.143113	1.919914	-5.586063	3.727404	3.44295	4.195351	0.412
AG	-5.198849	3.978087	-1.065962	2.526021	-4.132887	4.71736	0.381
AH	-4.4	3.846953	-2.20669	2.673792	-2.19331	4.684892	0.64
BD	-1.293486	1.689968	0.1763848	3.388905	-1.469871	3.786623	0.698
BG	0.4999998	2.946627	-0.969888	2.378211	1.469888	3.786621	0.698
CD	2.536152	1.346161	0.4906747	6.254631	2.045477	6.397797	0.749
CE	1	5.992993	3.045353	2.239768	-2.045353	6.397854	0.749
DE	0.4472792	1.911334	-0.1647308	4.298231	0.61201	4.704008	0.896
DF *	-1.016089	2.068843	5.734505	1223.4	-6.750594	1223.402	0.996
DG	0.4447803	1.769758	1.042097	2.84423	-0.5973171	3.347429	0.858
DH	0.3172222	1.902145	-1.875953	4.28142	2.193176	4.684894	0.64
EG	0.3999734	2.726613	0.0972146	3.098505	0.3027588	4.127357	0.942
* Warning: all the evidence about these contrasts comes from the trials which directly compare them							

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load, H=Vegetarian.

**Supplementary Table S14: Side-splitting approach to assess inconsistency for BMI.**

Side	Direct		Indirect		Difference		P> z
	Coef.	Std.Err.	Coef.	Std.Err.	Coef.	Std.Err.	
AD	-0.4741358	0.7367569	-2.488752	1.505576	2.014616	1.676955	0.23
AG	-2.403072	1.376565	0.5720875	1.297568	-2.975159	1.886457	0.115
AH	-2	1.515396	-0.7535385	1.186168	-1.246461	1.924427	0.517
BD	-0.0381416	1.145034	0.9132772	1.703065	-0.9514188	2.052227	0.643
BG	0.7000001	1.34383	-0.2514325	1.551055	0.9514326	2.052231	0.643
CD*	1.399771	1.130188	-1.142868	1145.063	2.542639	1145.063	0.998
CE*	1.3	2.094544	4.34158	3742.344	-3.04158	3742.345	0.999
DF*	-0.3765906	0.9022541	1.753298	401.1976	-2.129889	401.1986	0.996
DG	0.2225879	1.112653	-0.3257017	1.538118	0.5482896	1.891401	0.772
DH	-0.0633065	0.9116813	-1.30974	1.692895	1.246433	1.924429	0.517

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load, H=Vegetarian.

**Supplementary Table S15: Side-splitting approach to assess inconsistency for waist circumference.**

Side	Direct		Indirect		Difference		P> z
	Coef.	Std.Err.	Coef.	Std.Err.	Coef.	Std.Err.	
AD*	-4.018393	1.74084	-4.857293	5.907961	0.8388997	6.169779	0.892
AG	-4.788336	2.854211	-4.460205	2.69701	-0.3281304	3.937974	0.934
BD*	-0.6036194	1.464914	-8.374757	3383.476	7.771137	3383.477	0.998
CD	3.315978	1.861679	-1.128112	2.770645	4.44409	3.338176	0.183
CE	0.6000003	2.271646	5.044077	2.446027	-4.444077	3.338177	0.183
DE	1.830429	1.679448	-1.842671	2.550175	3.6731	3.053314	0.229
DF*	-0.9934731	1.376387	8.231266	1145.571	-9.224739	1145.572	0.994
DG*	-0.2776976	1.411478	-2.830718	4.247856	2.55302	4.467252	0.568
DH*	1.012783	1.305981	8.165979	1184.419	-7.153196	1184.419	0.995
EG	-1.799994	2.096731	-0.1849672	2.823019	-1.615027	3.516492	0.646

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load, H=Vegetarian.

**Supplementary Table S16: Subgroup analysis presenting mean differences with 95% CI in HbA1c (%) between different dietary approaches, stratified by intervention duration: long-term studies<12 months (bottom-left) and long-term studies ≥12 months (upper-right).**

Vegetarian	-	-	-	-	-	-	-
-0.46 (-2.41,1.50)	Moderate-Carbohydrate	0.23 (-0.24,0.70)	<b>0.58 (0.10,1.05)</b>	<b>0.58 (0.12,1.03)</b>	<b>0.54 (0.00,1.08)</b>	<b>0.72 (0.20,1.24)</b>	<b>0.67 (0.43,0.91)</b>
-	-	Mediterranean	<b>0.35 (0.16,0.54)</b>	<b>0.35 (0.23,0.47)</b>	<b>0.31 (-0.00,0.63)</b>	<b>0.49 (0.20,0.78)</b>	<b>0.32 (0.07,0.57)</b>
-0.18 (-1.88,1.51)	0.27 (-1.66,2.20)	-	Low-GI/GL	-0.00 (-0.14,0.14)	-0.04 (-0.36,0.28)	0.14 (-0.15,0.44)	<b>0.32 (0.11,0.53)</b>
-0.55 (-1.76,0.66)	-0.09 (-1.62,1.43)	-	-0.37 (-1.55,0.82)	Low-Fat	-0.04 (-0.33,0.25)	0.14 (-0.12,0.40)	-0.02 (-0.54,0.50)
-0.68 (-1.98,0.61)	-0.23 (-1.83,1.37)	-	-0.50 (-1.59,0.59)	-0.13 (-0.59,0.32)	Low-Carbohydrate	0.18 (-0.21,0.57)	<b>0.36 (0.00,0.72)</b>
-0.52 (-1.80,0.77)	-0.06 (-1.53,1.41)	-	-0.33 (-1.58,0.92)	0.03 (-0.38,0.45)	0.17 (-0.45,0.79)	High Protein	0.18 (-0.15,0.51)
0.28 (-1.37,1.94)	0.53 (-1.03,2.10)	-	<b>1.47 (0.20,2.73)</b>	0.90 (-0.13,1.93)	1.03 (-0.09,2.16)	0.87 (-0.24,1.97)	Control

**Supplementary Table S17: Subgroup analysis presenting mean differences with 95% CI in HbA1c (%) between different dietary approaches, stratified by mean age:  $\geq 60$  years old (bottom-left) and  $< 60$  years old (upper-right).**

Vegetarian	-0.55 (-1.17,0.07)	<b>-0.86 (-1.57, -0.14)</b>	-0.22 (-1.50,1.05)	-0.51 (-1.21,0.19)	-0.72 (-1.51,0.07)	-0.44 (-1.19,0.31)	<b>1.21 (0.67,1.75)</b>
-	Moderate-Carbohydrate	-0.31 (-0.98,0.37)	0.33 (-0.92,1.58)	0.04 (-0.62,0.70)	-0.17 (-0.93,0.58)	0.11 (-0.60,0.82)	0.57 (-0.61,1.76)
-	-	Mediterranean	0.64 (-0.43,1.71)	<b>0.35 (0.23,0.47)</b>	0.14 (-0.25,0.52)	<b>0.42 (0.14,0.70)</b>	<b>1.39 (0.32,2.46)</b>
-	0.22 (-1.23,1.67)	-	Low-GI/GL	-0.29 (-1.35,0.78)	-0.50 (-1.50,0.50)	-0.22 (-1.31,0.88)	<b>0.86 (0.33,1.38)</b>
-	0.22 (-1.23,1.66)	-	0.00 (-0.14,0.14)	Low-Fat	-0.21 (-0.58,0.15)	0.07 (-0.18,0.33)	-0.56 (-1.27,0.15)
-	-0.12 (-1.62,1.39)	-	-0.34 (-0.78,0.11)	-0.34 (-0.76,0.09)	Low-Carbohydrate	0.28 (-0.16,0.73)	<b>1.07 (0.43,1.71)</b>
-	0.06 (-1.34,1.46)	-	-0.16 (-0.52,0.21)	-0.16 (-0.50,0.18)	0.18 (-0.36,0.72)	High Protein	<b>0.79 (0.20,1.37)</b>
-	-0.21 (-1.66,1.24)	-	<b>-0.26 (-0.52, -0.00)</b>	<b>-0.26 (-0.48, -0.04)</b>	0.08 (-0.40,0.55)	-0.10 (-0.51,0.30)	Control

**Supplementary Table S18: Subgroup analysis presenting mean differences with 95% CI in HbA1c (%) between different dietary approaches, stratified by sample size: <100 (bottom-left) and ≥100 (upper-right).**

Vegetarian	-0.55 (-1.25,0.15)	-0.36 (-1.04,0.32)	-0.02 (-0.73,0.70)	-0.02 (-0.68,0.64)	-0.09 (-0.76,0.58)	0.08 (-0.69,0.86)	-0.54 (-1.22,0.13)
-0.70 (-2.21,0.80)	Moderate-Carbohydrate	0.19 (-0.44,0.83)	0.53 (-0.14,1.21)	0.53 (-0.08,1.15)	0.46 (-0.17,1.09)	0.63 (-0.10,1.37)	<b>0.71 (0.27,1.14)</b>
-	-	Mediterranean	0.34 (-0.01,0.69)	<b>0.34 (0.12,0.56)</b>	0.27 (-0.06,0.60)	0.44 (-0.02,0.90)	0.37 (-0.12,0.85)
-0.44 (-1.80,0.92)	0.26 (-1.65,2.18)	-	Low-GI/GL	-0.00 (-0.27,0.27)	-0.07 (-0.45,0.30)	0.10 (-0.39,0.59)	0.37 (-0.04,0.77)
<b>-0.54 (-1.02, -0.06)</b>	0.16 (-1.26,1.59)	-	-0.10 (-1.37,1.17)	Low-Fat	-0.07 (-0.33,0.18)	0.10 (-0.31,0.51)	-0.07 (-0.73,0.60)
0.06 (-0.87,0.99)	0.76 (-0.87,2.40)	-	0.50 (-0.50,1.50)	0.60 (-0.19,1.39)	Low-Carbohydrate	0.17 (-0.31,0.65)	<b>0.44 (0.01,0.86)</b>
<b>-0.64 (-1.19, -0.10)</b>	0.06 (-1.34,1.46)	-	-0.10 (-0.36,0.15)	-0.10 (-0.36,0.15)	-0.70 (-1.54,0.13)	High Protein	0.27 (-0.31,0.84)
-0.36 (-1.90,1.17)	-1.00 (-2.58,0.58)	-	-1.00 (-2.28,0.28)	-0.90 (-1.83,0.03)	<b>-1.50 (-2.72, -0.28)</b>	-0.80 (-1.76,0.17)	Control

**Supplementary Table S19: Subgroup analysis presenting mean differences with 95% CI in fasting glucose (mmol/L) between different dietary approaches, stratified by intervention duration: long-term studies <12 months (bottom-left) and long-term studies ≥12 months (upper-right).**

Vegetarian	-	-	-	-	-	-	-
-0.03 (-0.66,0.61)	Moderate-Carbohydrate	0.01 (-0.45,0.47)	-	<b>0.79 (0.63,0.94)</b>	<b>1.23 (0.38,2.07)</b>	<b>0.90 (0.39,1.42)</b>	<b>2.04 (1.53,2.54)</b>
-	-	Mediterranean	-	<b>0.77 (0.34,1.21)</b>	<b>1.22 (0.28,2.15)</b>	<b>0.89 (0.24,1.54)</b>	<b>2.02 (1.37,2.68)</b>
<b>1.20 (0.57,1.83)</b>	<b>1.23 (0.57,1.88)</b>	-	Low-GI/GL	-	-	-	-
0.09 (-0.34,0.53)	0.12 (-0.35,0.59)	-	<b>-1.11 (-1.56, -0.65)</b>	Low-fat	0.44 (-0.39,1.27)	0.12 (-0.37,0.61)	<b>1.25 (0.76,1.74)</b>
0.86 (-0.11,1.83)	0.89 (-0.10,1.88)	-	-0.34 (-1.25,0.57)	0.77 (-0.10,1.64)	Low-Carbohydrate	-0.33 (-1.29,0.64)	0.81 (-0.16,1.77)
-0.25 (-0.71,0.21)	-0.22 (-0.71,0.26)	-	<b>-1.45 (-1.93, -0.97)</b>	<b>-0.34 (-0.50, -0.19)</b>	<b>-1.11 (-2.00, -0.23)</b>	High Protein	<b>1.13 (0.44,1.83)</b>
<b>-3.04 (-5.27, -0.82)</b>	<b>-3.02 (-5.25, -0.78)</b>	-	<b>-4.24 (-6.47, -2.01)</b>	<b>-3.14 (-5.32, -0.95)</b>	<b>-3.90 (-6.25, -1.55)</b>	<b>-2.79 (-4.98, -0.60)</b>	Control



**Supplementary Table S20: Subgroup analysis presenting mean differences with 95% CI in fasting glucose (mmol/L) between different dietary approaches, stratified by mean age:  $\geq 60$  years old (bottom-left) and  $< 60$  years old (upper-right).**

<b>Vegetarian</b>	-0.44 (-1.26,0.38)	-0.79 (-1.69,0.11)	-1.07 (-2.04, -0.11)	-0.03 (-0.69,0.63)	-0.40 (-1.42,0.61)	0.06 (-0.84,0.95)	<b>1.39 (0.47,2.31)</b>
-	<b>Moderate-Carbohydrate</b>	-0.35 (-1.11,0.40)	-0.63 (-1.45,0.19)	0.41 (-0.03,0.86)	0.04 (-0.85,0.93)	0.50 (-0.25,1.24)	<b>1.83 (1.13,2.53)</b>
-	-	<b>Mediterranean</b>	-0.28 (-1.21,0.65)	<b>0.77 (0.16,1.37)</b>	0.39 (-0.59,1.37)	0.85 (-0.01,1.70)	<b>2.18 (1.31,3.06)</b>
-	-	-	<b>Low-GI/GL</b>	<b>1.04 (0.35,1.74)</b>	0.67 (-0.26,1.60)	<b>1.13 (0.21,2.05)</b>	<b>2.46 (1.53,3.40)</b>
-	0.45 (-0.89,1.80)	-	-	<b>Low-fat</b>	-0.37 (-1.14,0.39)	0.08 (-0.51,0.68)	<b>1.42 (0.79,2.05)</b>
-	-0.39 (-2.29,1.52)	-	-	-0.84 (-2.19,0.51)	<b>Low-Carbohydrate</b>	0.46 (-0.52,1.43)	<b>1.79 (0.80,2.79)</b>
-	0.10 (-1.23,1.43)	-	-	<b>-0.35 (-0.51, -0.20)</b>	0.49 (-0.87,1.84)	<b>High Protein</b>	<b>1.34 (0.47,2.20)</b>
-	-	-	-	-	-	-	<b>Control</b>

**Supplementary Table S21: Subgroup analysis presenting mean differences with 95% CI in fasting glucose (mmol/L) between different dietary approaches, stratified by sample size: <100 (bottom-left) and ≥100 (upper-right).**

Vegetarian	-0.68 (-1.62,0.26)	<b>-0.94 (-1.62, -0.26)</b>	-	-0.17 (-0.67,0.33)	-	0.03 (-0.81,0.87)	<b>1.14 (0.23,2.06)</b>
-0.15 (-1.67,1.37)	Moderate-Carbohydrate	-0.26 (-1.20,0.67)	-	0.51 (-0.29,1.30)	-	0.71 (-0.33,1.75)	<b>1.82 (1.03,2.62)</b>
-	-	Mediterranean	-	<b>0.77 (0.31,1.23)</b>	-	<b>0.97 (0.16,1.78)</b>	<b>2.09 (1.15,3.02)</b>
0.54 (-1.08,2.16)	0.69 (-0.25,1.62)	-	Low-GI/GL	-	-	-	-
-0.44 (-1.86,0.98)	-0.29 (-0.84,0.25)	-	<b>-0.98 (-1.76, -0.20)</b>	Low-fat	-	0.20 (-0.47,0.87)	<b>1.31 (0.54,2.08)</b>
-0.33 (-1.92,1.26)	-0.18 (-1.08,0.71)	-	-0.87 (-1.83,0.08)	0.11 (-0.61,0.83)	Low-Carbohydrate	-	-
-0.55 (-2.04,0.95)	-0.40 (-1.11,0.31)	-	<b>-1.09 (-2.01, -0.17)</b>	-0.11 (-0.58,0.37)	-0.22 (-1.08,0.65)	High Protein	<b>1.11 (0.09,2.13)</b>
<b>-3.53 (-6.22, -0.85)</b>	<b>-3.38 (-5.73, -1.04)</b>	-	<b>-4.07 (-6.48, -1.66)</b>	<b>-3.09 (-5.37, -0.81)</b>	<b>-3.20 (-5.59, -0.81)</b>	<b>-2.98 (-5.31, -0.66)</b>	Control

**Supplementary Table S22: Subgroup analysis presenting mean differences with 95% CI in body weight (kg) between different dietary approaches, stratified by intervention duration: long-term studies<12 months (bottom-left) and long-term studies  $\geq$ 12 months (upper-right).**

Vegetarian	-	-	-	-	-	-	-
-2.79 (-9.91,4.34)	Moderate-Carbohydrate	-0.16 (-5.97,5.64)	0.04 (-5.09,5.17)	0.87 (-3.07,4.81)	-2.20 (-7.89,3.48)	1.93 (-3.69,7.54)	3.12 (-1.97,8.22)
-	-	Mediterranean	0.20 (-6.47,6.88)	1.04 (-3.24,5.31)	-2.04 (-7.96,3.88)	2.09 (-3.77,7.95)	3.29 (-2.48,9.06)
-0.55 (-7.42,6.32)	2.24 (-5.70,10.17)	-	Low-GI/GL	0.83 (-4.29,5.96)	-2.24 (-8.79,4.31)	1.89 (-4.62,8.39)	3.09 (-3.15,9.32)
0.33 (-3.86,4.52)	3.12 (-2.65,8.88)	-	0.88 (-4.57,6.32)	Low-fat	-3.07 (-7.13,0.98)	1.05 (-2.95,5.06)	2.25 (-1.60,6.10)
2.23 (-3.49,7.96)	5.02 (-1.94,11.98)	-	2.78 (-3.44,9.00)	1.91 (-1.99,5.81)	Low-Carbohydrate	4.13 (-1.57,9.83)	5.32 (-0.22,10.87)
-1.92 (-8.71,4.88)	0.87 (-4.51,6.25)	-	-1.37 (-9.00,6.26)	-2.24 (-7.59,3.11)	-4.15 (-10.77,2.46)	High Protein	1.20 (-4.36,6.75)
-4.42 (-12.00,3.15)	-1.63 (-11.82,8.55)	-	-3.87 (-13.87,6.12)	-4.75 (-13.15,3.65)	-6.65 (-15.92,2.61)	-2.50 (-12.46,7.46)	Control

**Supplementary Table S23: Subgroup analysis presenting mean differences with 95% CI in body weight (kg) between different dietary approaches, stratified by mean age:  $\geq 60$  years old (bottom-left) and  $< 60$  years old (upper-right).**

Vegetarian	0.42 (-5.34,6.18)	-0.85 (-6.63,4.93)	0.75 (-5.65,7.14)	0.20 (-3.51,3.91)	-3.57 (-8.49,1.34)	1.17 (-4.32,6.66)	2.45 (-2.45,7.34)
-	Moderate-Carbohydrate	-1.27 (-7.63,5.10)	0.33 (-6.61,7.27)	-0.22 (-4.77,4.33)	-3.99 (-9.57,1.58)	0.75 (-5.34,6.85)	2.03 (-3.53,7.59)
-	-	Mediterranean	1.60 (-5.24,8.43)	1.05 (-3.39,5.48)	-2.72 (-8.21,2.76)	2.02 (-3.98,8.02)	3.30 (-2.79,9.38)
-	0.41 (-0.14,0.96)	-	Low-GI/GL	-0.55 (-5.76,4.67)	-4.32 (-10.13,1.49)	0.42 (-6.17,7.02)	1.70 (-5.00,8.40)
-	0.02 (-0.53,0.57)	-	-0.39 (-0.94,0.16)	Low-fat	<b>-3.77 (-6.99, -0.55)</b>	0.97 (-3.08,5.02)	2.25 (-1.90,6.40)
-	-1.48 (-4.03,1.08)	-	-1.89 (-4.44,0.67)	-1.50 (-3.99,0.99)	Low-Carbohydrate	4.74 (-0.43,9.92)	<b>6.02 (0.77,11.27)</b>
-	0.10 (-2.10,2.29)	-	-0.31 (-2.57,1.94)	0.08 (-2.16,2.32)	1.58 (-1.78,4.93)	High Protein	1.28 (-4.52,7.08)
-	<b>-4.77 (-9.06, -0.47)</b>	-	<b>-5.18 (-9.47, -0.88)</b>	<b>-4.79 (-9.05, -0.53)</b>	-3.29 (-8.22,1.65)	<b>-4.86 (-9.68, -0.05)</b>	Control

**Supplementary Table S24: Subgroup analysis presenting mean differences with 95% CI in body weight (kg) between different dietary approaches, stratified by sample size: <100 (bottom-left) and ≥100 (upper-right).**

<b>Vegetarian</b>	-2.44 (-7.96,3.09)	-2.87 (-8.41,2.67)	-2.56 (-8.60,3.48)	-1.89 (-6.04,2.26)	-	2.11 (-5.24,9.46)	1.06 (-3.70,5.82)
-4.03 (-11.08,3.02)	<b>Moderate-Carbohydrate</b>	-0.43 (-5.80,4.93)	-0.13 (-4.61,4.35)	0.54 (-3.32,4.41)	-	4.54 (-2.65,11.74)	3.50 (-1.24,8.23)
-	-	<b>Mediterranean</b>	0.31 (-5.52,6.14)	0.98 (-2.77,4.73)	-	4.98 (-2.16,12.12)	3.93 (-1.09,8.95)
-3.53 (-10.96,3.90)	0.50 (-6.19,7.19)	-	<b>Low-GI/GL</b>	0.67 (-3.81,5.15)	-	4.67 (-2.87,12.21)	3.62 (-1.78,9.02)
-2.69 (-8.19,2.80)	1.33 (-3.09,5.75)	-	0.83 (-4.17,5.84)	<b>Low-fat</b>	-	4.00 (-2.07,10.07)	2.95 (-0.32,6.22)
-0.28 (-6.40,5.83)	3.74 (-1.42,8.90)	-	3.24 (-2.22,8.70)	2.41 (-0.27,5.09)	<b>Low-Carbohydrate</b>	-	-
-3.21 (-9.74,3.31)	0.81 (-3.67,5.29)	-	0.31 (-5.82,6.45)	-0.52 (-4.04,3.00)	-2.93 (-7.35,1.49)	<b>High Protein</b>	-1.05 (-7.94,5.85)
-7.55 (-29.42,14.33)	-3.52 (-25.17,18.13)	-	-4.02 (-25.76,17.72)	-4.85 (-26.05,16.35)	-7.26 (-28.62,14.10)	-4.33 (-25.82,17.16)	<b>Control</b>

**Supplementary Table S25: Subgroup analysis presenting mean differences with 95% CI in BMI (kg/m<sup>2</sup>) between different dietary approaches, stratified by intervention duration: long-term studies <12 months (bottom-left) and long-term studies ≥12 months (upper-right).**

Vegetarian	-	-	-	-	-	-	-
-0.94 (-3.38,1.49)	Moderate-Carbohydrate	0.88 (-2.85,4.60)	-	1.26 (-1.80,4.32)	0.66 (-3.72,5.03)	1.26 (-3.81,6.33)	1.65 (-1.40,4.71)
-	-	Mediterranean	-	0.38 (-1.75,2.51)	-0.22 (-4.00,3.57)	0.38 (-4.19,4.95)	0.78 (-2.04,3.59)
1.87 (-3.55,7.29)	2.81 (-2.83,8.45)	-	Low-GI/GL	-	-	-	-
-0.04 (-1.35,1.27)	0.90 (-1.14,2.95)	-	-1.91 (-7.16,3.35)	Low-fat	-0.60 (-3.73,2.53)	0.00 (-4.04,4.04)	0.39 (-1.45,2.23)
3.17 (-0.70,7.04)	4.11 (-0.07,8.29)	-	1.30 (-2.49,5.09)	3.21 (-0.43,6.85)	Low-Carbohydrate	0.60 (-4.51,5.71)	0.99 (-2.64,4.62)
-0.19 (-2.59,2.21)	0.75 (-1.00,2.51)	-	-2.06 (-7.69,3.57)	-0.15 (-2.16,1.86)	-3.36 (-7.52,0.80)	High Protein	0.39 (-4.05,4.83)
-1.96 (-4.15,0.22)	-1.02 (-4.16,2.13)	-	-3.83 (-9.60,1.94)	-1.92 (-4.31,0.46)	<b>-5.13 (-9.49, -0.78)</b>	-1.77 (-4.89,1.35)	Control

**Supplementary Table S26: Subgroup analysis presenting mean differences with 95% CI in BMI (kg/m<sup>2</sup>) between different dietary approaches, stratified by mean age:  $\geq 60$  years old (bottom-left) and  $< 60$  years old (upper-right).**

Vegetarian	-	-	-	-	-	-	-
-0.16 (-2.89,2.57)	Moderate-Carbohydrate	-	-	-0.60 (-3.81,2.61)	-	-0.70 (-1.55,0.15)	0.60 (-2.61,3.81)
-0.02 (-2.67,2.64)	0.14 (-2.83,3.11)	Mediterranean	-	-	-	-	-
-0.23 (-5.48,5.01)	-0.07 (-5.49,5.35)	-0.21 (-5.55,5.12)	Low-GI/GL	-	-	-	-
-0.40 (-2.15,1.35)	-0.24 (-2.43,1.96)	-0.38 (-2.38,1.62)	-0.17 (-5.11,4.78)	Low-fat	-	0.00 (-2.78,2.79)	1.30 (-0.06,2.66)
1.07 (-1.92,4.06)	1.23 (-2.06,4.52)	1.09 (-2.06,4.23)	1.30 (-3.01,5.61)	1.47 (-0.96,3.89)	Low-Carbohydrate	-	-
-0.46 (-3.86,2.95)	-0.29 (-3.95,3.36)	-0.44 (-3.97,3.09)	-0.22 (-5.97,5.52)	-0.06 (-2.97,2.86)	-1.52 (-5.32,2.27)	High Protein	1.30 (-1.80,4.40)
-1.15 (-3.24,0.95)	-0.99 (-3.43,1.45)	-1.13 (-3.75,1.49)	-0.92 (-6.16,4.32)	-0.75 (-2.45,0.94)	-2.22 (-5.20,0.77)	-0.69 (-4.07,2.68)	Control

**Supplementary Table S27: Subgroup analysis presenting mean differences with 95% CI in BMI (kg/m<sup>2</sup>) between different dietary approaches, stratified by sample size: <100 (bottom-left) and ≥100 (upper-right).**

<b>Vegetarian</b>	-1.04 (-4.75,2.68)	-0.34 (-3.54,2.87)	-	0.04 (-2.33,2.41)	-	-	0.79 (-1.67,3.25)
<b>-1.97 (-3.57, -0.37)</b>	<b>Moderate-Carbohydrate</b>	0.70 (-3.06,4.45)	-	1.08 (-1.99,4.15)	-	-	1.83 (-1.24,4.90)
-	-	<b>Mediterranean</b>	-	0.38 (-1.78,2.54)	-	-	1.13 (-1.63,3.89)
-1.52 (-5.11,2.06)	0.45 (-3.30,4.19)	-	<b>Low-GI/GL</b>	-	-	-	-
<b>-1.10 (-1.93, -0.27)</b>	0.87 (-0.50,2.23)	-	0.42 (-3.06,3.91)	<b>Low-fat</b>	-	-	0.75 (-0.97,2.47)
-0.22 (-1.55,1.11)	<b>1.75 (0.04,3.46)</b>	-	1.30 (-2.03,4.63)	0.88 (-0.15,1.91)	<b>Low-Carbohydrate</b>	-	-
-1.24 (-2.82,0.33)	0.72 (-0.08,1.53)	-	0.28 (-3.45,4.01)	-0.14 (-1.48,1.19)	-1.02 (-2.71,0.67)	<b>High Protein</b>	-
-2.92 (-7.30,1.47)	-0.95 (-5.46,3.57)	-	-1.40 (-6.94,4.15)	-1.82 (-6.12,2.49)	-2.70 (-7.12,1.73)	-1.67 (-6.18,2.84)	<b>Control</b>



**Supplementary Table S28: Subgroup analysis presenting mean differences with 95% CI in waist circumference (cm) between different dietary approaches, stratified by intervention duration: long-term studies <12 months (bottom-left) and long-term studies ≥12 months (upper-right).**

Vegetarian	-	-	-	-	-	-	-
1.41 (-6.50,9.31)	Moderate-Carbohydrate	-0.25 (-2.25,1.76)	1.90 (-0.25,4.05)	0.20 (-1.74,2.14)	-0.60 (-4.63,3.43)	1.01 (-2.03,4.05)	<b>4.28 (1.49,7.07)</b>
-	-	Mediterranean	2.14 (-0.06,4.34)	0.44 (-0.05,0.93)	-0.36 (-3.92,3.21)	1.25 (-1.14,3.65)	<b>4.53 (2.16,6.89)</b>
2.47 (-5.31,10.26)	1.07 (-7.85,9.98)	-	Low-GI/GL	-1.70 (-3.85,0.44)	-2.50 (-6.63,1.63)	-0.89 (-4.07,2.29)	2.38 (-0.66,5.43)
1.20 (-3.47,5.87)	-0.21 (-6.58,6.17)	-	-1.27 (-7.50,4.95)	Low-fat	-0.80 (-4.33,2.73)	0.81 (-1.53,3.16)	<b>4.09 (1.77,6.40)</b>
5.53 (-1.88,12.95)	4.13 (-4.45,12.70)	-	3.06 (-2.88,9.00)	4.33 (-1.41,10.08)	Low-Carbohydrate	1.61 (-2.63,5.85)	<b>4.89 (0.66,9.11)</b>
0.99 (-7.35,9.33)	-0.42 (-9.82,8.99)	-	-1.48 (-10.79,7.82)	-0.21 (-7.12,6.70)	-4.54 (-13.53,4.44)	High Protein	3.27 (-0.02,6.57)
-3.95 (-21.43,13.53)	-5.36 (-23.38,12.66)	-	-6.42 (-24.39,11.54)	-5.15 (-22.01,11.71)	-9.49 (-27.29,8.32)	-4.94 (-23.16,13.28)	Control

**Supplementary Table S29: Subgroup analysis presenting mean differences with 95% CI in waist circumference (cm) between different dietary approaches, stratified by mean age:  $\geq 60$  years old (bottom-left) and  $< 60$  years old (upper-right).**

Vegetarian	-1.56 (-6.45,3.34)	-2.13 (-6.43,2.18)	-1.13 (-6.55,4.30)	-1.08 (-4.04,1.88)	-2.94 (-7.85,1.96)	-0.50 (-4.79,3.80)	3.11 (-2.75,8.97)
-	Moderate-Carbohydrate	-0.57 (-5.56,4.42)	0.43 (-5.56,6.42)	0.48 (-3.43,4.38)	-1.39 (-6.89,4.12)	1.06 (-3.93,6.04)	4.66 (-0.59,9.91)
-	-	Mediterranean	1.00 (-4.50,6.50)	1.05 (-2.06,4.15)	-0.81 (-5.76,4.13)	1.63 (-2.75,6.01)	5.24 (-0.70,11.18)
-	-1.80 (-4.02,0.42)	-	Low-GI/GL	0.05 (-4.49,4.59)	-1.82 (-5.99,2.36)	0.63 (-4.87,6.12)	4.23 (-2.57,11.03)
-	0.00 (-2.21,2.21)	-	1.80 (-0.41,4.01)	Low-fat	-1.86 (-5.74,2.01)	0.58 (-2.52,3.68)	4.19 (-0.87,9.25)
-	5.70 (-1.75,13.15)	-	<b>7.50 (0.05,14.95)</b>	5.70 (-1.42,12.82)	Low-Carbohydrate	2.44 (-2.51,7.40)	6.05 (-0.33,12.43)
-	-	-	-	-	-	High Protein	3.61 (-2.33,9.54)
-	<b>-4.00 (-7.67, -0.33)</b>	-	-2.20 (-5.87,1.47)	<b>-4.00 (-6.93, -1.07)</b>	<b>-9.70 (-17.40, -2.00)</b>	-	Control

**Supplementary Table S30: Subgroup analysis presenting mean differences with 95% CI in waist circumference (cm) between different dietary approaches, stratified by sample size: <100 (bottom-left) and ≥100 (upper-right).**

<b>Vegetarian</b>	<b>-3.95 (-6.66, -1.23)</b>	<b>-4.19 (-6.15, -2.23)</b>	-2.05 (-4.91,0.82)	<b>-3.75 (-5.65, -1.85)</b>	-	-2.35 (-5.91,1.21)	0.34 (-2.66,3.33)
-1.01 (-7.61,5.59)	<b>Moderate-Carbohydrate</b>	-0.25 (-2.25,1.76)	1.90 (-0.25,4.05)	0.20 (-1.74,2.14)	-	1.60 (-1.98,5.18)	<b>4.28 (1.49,7.07)</b>
-	-	<b>Mediterranean</b>	2.14 (-0.06,4.34)	0.44 (-0.05,0.93)	-	1.84 (-1.21,4.89)	<b>4.53 (2.16,6.89)</b>
-0.72 (-6.69,5.25)	0.29 (-6.57,7.15)	-	<b>Low-GI/GL</b>	-1.70 (-3.85,0.44)	-	-0.30 (-4.00,3.39)	2.38 (-0.66,5.43)
-1.20 (-5.20,2.81)	-0.19 (-5.44,5.06)	-	-0.48 (-4.90,3.95)	<b>Low-fat</b>	-	1.40 (-1.61,4.41)	<b>4.09 (1.77,6.40)</b>
1.36 (-4.16,6.89)	2.37 (-4.09,8.83)	-	2.08 (-2.24,6.41)	2.56 (-1.23,6.36)	<b>Low-Carbohydrate</b>	-	-
-1.25 (-6.89,4.40)	-0.24 (-6.82,6.35)	-	-0.52 (-6.48,5.43)	-0.05 (-4.03,3.93)	-2.61 (-8.13,2.91)	<b>High Protein</b>	2.69 (-1.11,6.48)
-6.34 (-22.93,10.25)	-5.33 (-22.27,11.60)	-	-5.62 (-22.32,11.08)	-5.15 (-21.25,10.96)	-7.71 (-24.25,8.84)	-5.10 (-21.69,11.49)	<b>Control</b>

**Table S31: Sensitivity analysis presenting mean differences with 95% CI in HbA1c (%) between different dietary approaches, after exclusion of studies with overall high risk of bias (bottom-left) and inclusion low risk of bias studies (upper-right).**

<b>Vegetarian</b>	-0.52 (-1.56,0.53)	-0.87 (-2.03,0.29)	-0.38 (-2.50,1.74)	-0.17 (-0.88,0.54)	0.03 (-1.35,1.41)	-0.10 (-1.09,0.88)	<b>1.14 (0.13,2.14)</b>
0.53 (-0.36,1.41)	<b>Moderate-Carbohydrate</b>	-0.35 (-1.56,0.85)	0.14 (-2.01,2.28)	0.34 (-0.43,1.12)	0.55 (-0.87,1.96)	0.41 (-0.50,1.32)	<b>1.65 (0.77,2.53)</b>
0.93 (-0.05,1.92)	0.41 (-0.35,1.17)	<b>Mediterranean</b>	0.49 (-1.71,2.69)	0.70 (-0.22,1.62)	0.90 (-0.60,2.40)	0.77 (-0.39,1.92)	<b>2.01 (0.84,3.17)</b>
0.88 (-1.12,2.89)	0.36 (-1.55,2.27)	-0.05 (-2.01,1.91)	<b>Low-GI/GL</b>	0.21 (-1.79,2.21)	0.41 (-1.21,2.03)	0.27 (-1.84,2.39)	1.52 (-0.61,3.64)
0.17 (-0.60,0.94)	-0.36 (-0.80,0.09)	<b>-0.76 (-1.39, -0.14)</b>	-0.71 (-2.57,1.14)	<b>Low-fat</b>	0.20 (-0.98,1.38)	0.07 (-0.63,0.76)	<b>1.31 (0.59,2.02)</b>
0.47 (-0.68,1.63)	-0.05 (-1.02,0.91)	-0.46 (-1.52,0.60)	-0.41 (-2.06,1.24)	0.30 (-0.55,1.16)	<b>Low-Carbohydrate</b>	-0.14 (-1.50,1.23)	1.11 (-0.27,2.49)
0.01 (-0.88,0.89)	-0.52 (-1.14,0.10)	<b>-0.93 (-1.69, -0.17)</b>	-0.88 (-2.78,1.03)	-0.16 (-0.60,0.27)	-0.47 (-1.43,0.49)	<b>High Protein</b>	<b>1.24 (0.33,2.16)</b>
<b>-1.26 (-2.26, -0.26)</b>	<b>-1.79 (-2.49, -1.08)</b>	<b>-2.20 (-3.09, -1.31)</b>	<b>-2.15 (-4.11, -0.19)</b>	<b>-1.43 (-2.07, -0.80)</b>	<b>-1.74 (-2.81, -0.67)</b>	<b>-1.27 (-2.04, -0.50)</b>	<b>Control</b>

**Table S32: Sensitivity analysis presenting mean differences with 95% CI in fasting glucose (mmol/L) between different dietary approaches, after exclusion of studies with overall high risk of bias (bottom-left) and inclusion low risk of bias studies (upper-right).**

Vegetarian	-0.49 (-0.96, -0.02)	-0.29 (-0.47, -0.11)	0.48 (-0.55, 1.52)	0.06 (-0.06, 0.18)	-0.02 (-0.30, 0.27)	0.14 (-0.12, 0.39)	-0.08 (-1.13, 0.97)
0.48 (-0.19, 1.15)	Moderate-Carbohydrate	0.20 (-0.27, 0.67)	0.98 (-0.15, 2.10)	<b>0.55 (0.10, 1.00)</b>	0.48 (-0.05, 1.00)	<b>0.63 (0.12, 1.13)</b>	0.42 (-0.62, 1.46)
0.30 (-0.06, 0.66)	-0.18 (-0.85, 0.49)	Mediterranean	0.77 (-0.26, 1.81)	<b>0.35 (0.23, 0.47)</b>	0.27 (-0.01, 0.56)	<b>0.43 (0.17, 0.68)</b>	<b>0.35 (0.15, 0.55)</b>
-0.34 (-1.47, 0.80)	-0.81 (-2.11, 0.48)	-0.64 (-1.77, 0.50)	Low-GI/GL	-0.42 (-1.46, 0.61)	-0.50 (-1.50, 0.50)	-0.35 (-1.40, 0.71)	-0.05 (-0.57, 0.47)
-0.06 (-0.31, 0.19)	-0.54 (-1.16, 0.08)	<b>-0.36 (-0.62, -0.10)</b>	0.28 (-0.83, 1.38)	Low-Fat	-0.08 (-0.33, 0.18)	0.08 (-0.15, 0.30)	<b>0.42 (0.10, 0.75)</b>
0.16 (-0.33, 0.66)	-0.31 (-1.11, 0.49)	-0.14 (-0.64, 0.36)	0.50 (-0.52, 1.52)	0.22 (-0.20, 0.65)	Low-Carbohydrate	0.15 (-0.19, 0.49)	0.27 (-0.03, 0.58)
-0.17 (-0.58, 0.24)	-0.65 (-1.34, 0.04)	<b>-0.47 (-0.88, -0.06)</b>	0.17 (-0.99, 1.32)	-0.11 (-0.43, 0.21)	-0.33 (-0.87, 0.20)	High Protein	0.69 (-0.81, 2.18)
-0.09 (-1.30, 1.13)	-0.28 (-1.41, 0.86)	-0.36 (-0.77, 0.05)	0.06 (-0.61, 0.73)	-0.59 (-1.24, 0.07)	-0.25 (-0.77, 0.26)	-0.71 (-2.29, 0.87)	Control

**Table S33: Sensitivity analysis presenting mean differences with 95% CI in body weight (kg) between different dietary approaches, after exclusion of studies with overall high risk of bias (bottom-left) and inclusion low risk of bias studies (upper-right).**

<b>Vegetarian</b>	-3.20 (-8.12,1.72)	-3.64 (-9.20,1.92)	-3.55 (-8.86,1.76)	-3.34 (-7.30,0.62)	-3.21 (-9.30,2.88)	-3.16 (-8.11,1.79)	-2.19 (-7.63,3.26)
2.85 (-3.44,9.15)	<b>Moderate-Carbohydrate</b>	-0.44 (-5.31,4.43)	-0.35 (-3.98,3.28)	-0.14 (-3.06,2.78)	-0.01 (-5.35,5.33)	0.04 (-3.28,3.36)	1.01 (-3.75,5.78)
4.37 (-2.58,11.33)	1.52 (-3.74,6.78)	<b>Mediterranean</b>	0.09 (-5.17,5.35)	0.30 (-3.60,4.20)	0.43 (-5.62,6.48)	0.48 (-4.42,5.38)	1.45 (-3.94,6.85)
3.68 (-3.48,10.85)	0.83 (-3.91,5.57)	-0.69 (-6.96,5.58)	<b>Low-GI/GL</b>	0.21 (-3.32,3.74)	0.34 (-5.12,5.80)	0.39 (-3.91,4.68)	1.36 (-3.75,6.47)
3.34 (-2.15,8.83)	0.49 (-2.59,3.56)	-1.03 (-5.30,3.23)	-0.34 (-4.95,4.26)	<b>Low-fat</b>	0.13 (-4.49,4.76)	0.18 (-2.79,3.15)	1.15 (-2.57,4.88)
5.87 (-0.47,12.21)	3.02 (-1.33,7.37)	1.50 (-3.81,6.81)	2.19 (-3.13,7.50)	2.53 (-0.64,5.70)	<b>Low-Carbohydrate</b>	0.05 (-5.40,5.49)	1.02 (-4.95,6.99)
2.23 (-4.15,8.61)	-0.62 (-4.46,3.21)	-2.15 (-7.52,3.22)	-1.45 (-6.89,3.98)	-1.11 (-4.36,2.14)	-3.64 (-8.17,0.89)	<b>High Protein</b>	0.98 (-3.83,5.78)
0.80 (-5.86,7.47)	-2.05 (-6.62,2.52)	-3.57 (-9.28,2.14)	-2.88 (-8.74,2.98)	-2.54 (-6.32,1.24)	<b>-5.07 (-10.00, -0.13)</b>	-1.43 (-6.31,3.46)	<b>Control</b>

**Table S34: Sensitivity analysis presenting mean differences with 95% CI in BMI (kg/m<sup>2</sup>) between different dietary approaches, after exclusion of studies with overall high risk of bias (bottom-left) and inclusion low risk of bias studies (upper-right).**

<b>Vegetarian</b>	-1.81 (-6.01,2.39)	-0.98 (-5.42,3.46)	-0.18 (-6.65,6.29)	-0.88 (-4.03,2.27)	-1.48 (-6.05,3.09)	-2.18 (-6.66,2.29)	-0.42 (-4.10,3.27)
0.92 (-2.20,4.05)	<b>Moderate-Carbohydrate</b>	0.83 (-3.36,5.02)	1.63 (-4.66,7.93)	0.93 (-1.85,3.71)	0.33 (-4.00,4.66)	-0.37 (-3.17,2.42)	1.39 (-1.53,4.32)
1.26 (-1.88,4.40)	0.34 (-2.26,2.94)	<b>Mediterranean</b>	0.80 (-5.66,7.26)	0.10 (-3.04,3.23)	-0.50 (-5.07,4.06)	-1.21 (-5.68,3.26)	0.56 (-3.11,4.24)
1.00 (-4.39,6.40)	0.08 (-5.03,5.19)	-0.25 (-5.36,4.85)	<b>Low-GI/GL</b>	-0.70 (-6.35,4.95)	-1.30 (-5.87,3.27)	-2.00 (-8.49,4.48)	-0.24 (-6.20,5.73)
0.88 (-1.66,3.42)	-0.04 (-1.87,1.79)	-0.38 (-2.23,1.47)	-0.12 (-4.89,4.64)	<b>Low-fat</b>	-0.60 (-3.92,2.72)	-1.30 (-4.49,1.88)	0.46 (-1.46,2.39)
2.30 (-1.12,5.72)	1.38 (-1.56,4.33)	1.05 (-1.90,3.99)	1.30 (-2.87,5.47)	1.42 (-0.87,3.72)	<b>Low-Carbohydrate</b>	-0.70 (-5.30,3.90)	1.06 (-2.77,4.90)
1.24 (-2.09,4.58)	0.32 (-1.79,2.44)	-0.01 (-2.86,2.84)	0.24 (-5.01,5.49)	0.36 (-1.80,2.53)	-1.06 (-4.24,2.12)	<b>High Protein</b>	1.77 (-1.69,5.22)
0.19 (-2.77,3.14)	-0.74 (-2.86,1.39)	-1.07 (-3.46,1.32)	-0.82 (-5.83,4.20)	-0.69 (-2.21,0.82)	-2.12 (-4.90,0.66)	-1.06 (-3.58,1.46)	<b>Control</b>

**Table S35: Sensitivity analysis presenting mean differences with 95% CI in waist circumference (cm) between different dietary approaches, after exclusion of studies with overall high risk of bias (bottom-left) and inclusion low risk of bias studies (upper-right).**

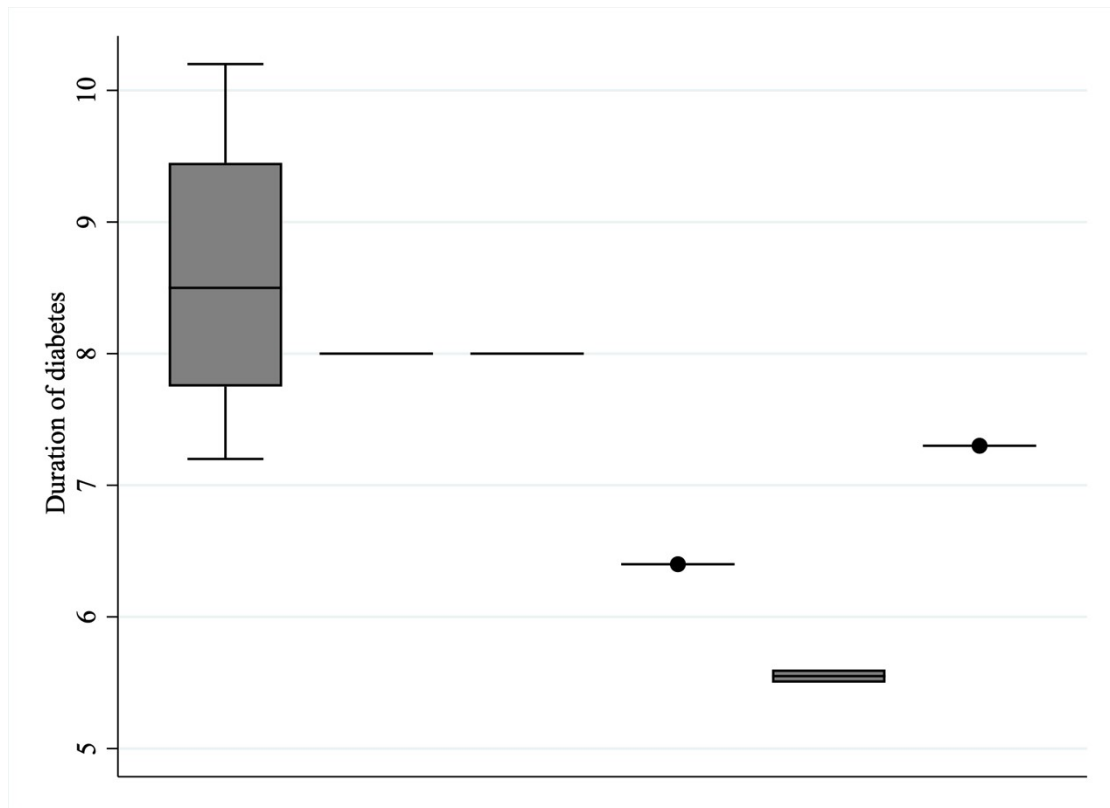
<b>Vegetarian</b>	<b>-4.08 (-6.77, -1.39)</b>	<b>-4.15 (-6.11, -2.19)</b>	-2.38 (-5.10,0.34)	<b>-3.75 (-5.65, -1.85)</b>	<b>-3.64 (-6.83, -0.46)</b>	<b>-3.18 (-6.11, -0.24)</b>	0.31 (-2.68,3.31)
<b>4.22 (1.63,6.80)</b>	<b>Moderate-Carbohydrate</b>	-0.07 (-2.04,1.90)	1.70 (-0.38,3.79)	0.33 (-1.57,2.24)	0.44 (-2.46,3.33)	0.91 (-2.03,3.84)	<b>4.39 (1.62,7.16)</b>
<b>4.19 (2.23,6.15)</b>	-0.02 (-1.84,1.79)	<b>Mediterranean</b>	1.77 (-0.24,3.78)	0.40 (-0.10,0.90)	0.51 (-2.10,3.11)	0.97 (-1.31,3.26)	<b>4.46 (2.09,6.83)</b>
<b>2.83 (0.15,5.50)</b>	-1.39 (-3.41,0.64)	-1.36 (-3.31,0.58)	<b>Low-GI/GL</b>	-1.37 (-3.32,0.58)	-1.26 (-3.70,1.18)	-0.79 (-3.76,2.17)	2.69 (-0.24,5.62)
<b>3.75 (1.85,5.65)</b>	-0.47 (-2.21,1.28)	-0.44 (-0.93,0.05)	0.92 (-0.96,2.80)	<b>Low-fat</b>	0.11 (-2.45,2.66)	0.57 (-1.66,2.81)	<b>4.06 (1.75,6.38)</b>
<b>5.04 (2.09,8.00)</b>	0.83 (-1.82,3.47)	0.85 (-1.47,3.17)	2.21 (-0.09,4.52)	1.29 (-0.97,3.56)	<b>Low-Carbohydrate</b>	0.47 (-2.93,3.86)	<b>3.96 (0.55,7.36)</b>
<b>3.04 (0.18,5.90)</b>	-1.18 (-3.94,1.58)	-1.15 (-3.35,1.04)	0.21 (-2.64,3.06)	-0.71 (-2.85,1.42)	-2.01 (-5.12,1.11)	<b>High Protein</b>	<b>3.49 (0.27,6.70)</b>
-0.31 (-3.28,2.66)	<b>-4.53 (-7.21, -1.84)</b>	<b>-4.50 (-6.84, -2.17)</b>	<b>-3.14 (-6.03, -0.26)</b>	<b>-4.06 (-6.35, -1.78)</b>	<b>-5.36 (-8.54, -2.17)</b>	<b>-3.35 (-6.48, -0.22)</b>	<b>Control</b>



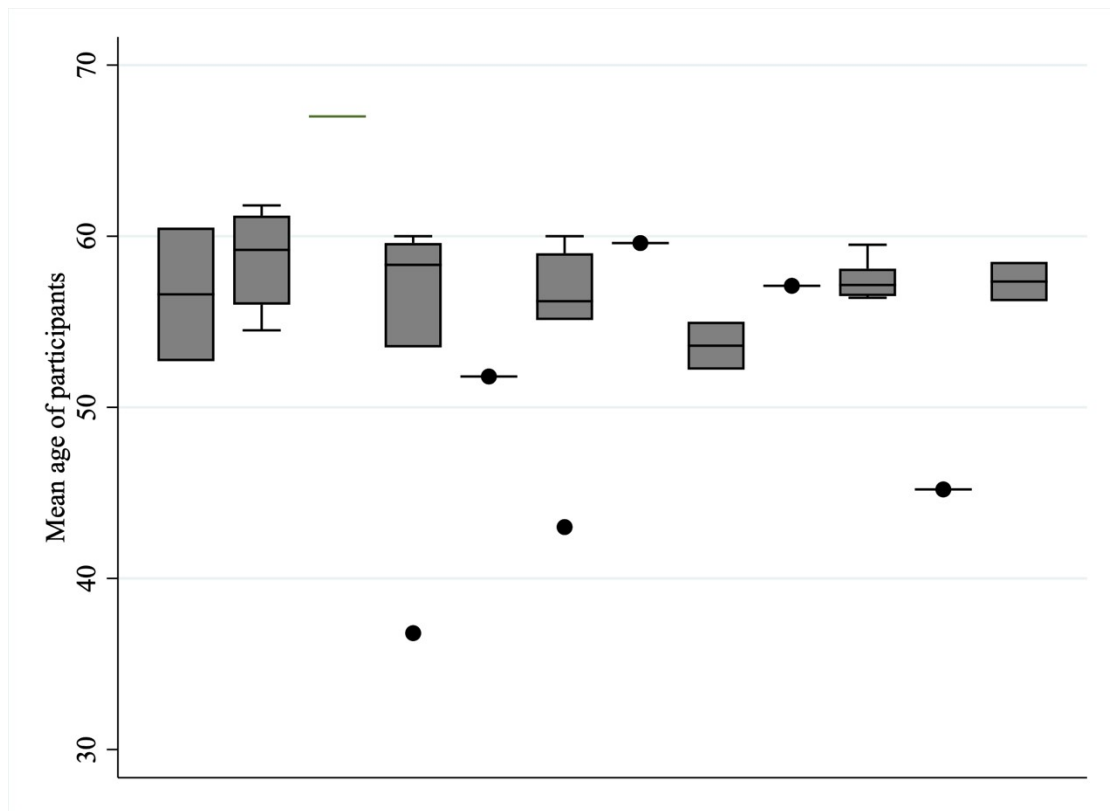
**Supplementary Figure S1: Risk of bias assessment for included trials**

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
AlFaris 2020	?	?	+	+	+
Andrews 2011	+	+	+	+	+
Brehm 2008	?	?	+	+	+
Brinkworth 2004	+	?	+	+	?
Daly 2006	+	?	+	?	+
Davis 2009	+	?	+	+	?
Elhayany 2010	?	?	+	+	+
Esposito 2009	+	+	?	+	+
Fabricatore 2011	?	?	+	+	+
Hellbronn 1999	?	?	+	+	+
Iqbal 2010	+	?	+	+	+
Jenkins 2022	+	+	+	+	+
Kahleova 2010	?	+	+	+	+
Krebs 2012	+	+	?	+	+
Larsen 2011	+	+	?	+	+
Li 2016	+	?	+	+	+
Li 2022	?	?	+	+	+
McLaughlin 2007	?	?	+	+	?
Mishra 2013	+	?	+	+	+
Mollentze 2019	?	?	+	+	+
Parker 2002	?	?	+	+	+
Pedersen 2014	+	?	+	+	+
Rock 2014	+	?	+	+	+
Shige 2000	?	?	+	+	+
Tay 2015	+	+	+	+	+
Vetter 2010	?	?	+	?	+
Watson 2016	+	?	+	+	+
Weber 2022	+	?	+	+	+
Westman 2008	+	?	+	+	+
Wolever 2008	+	+	+	+	+
Wycherley 2010	?	?	+	+	+

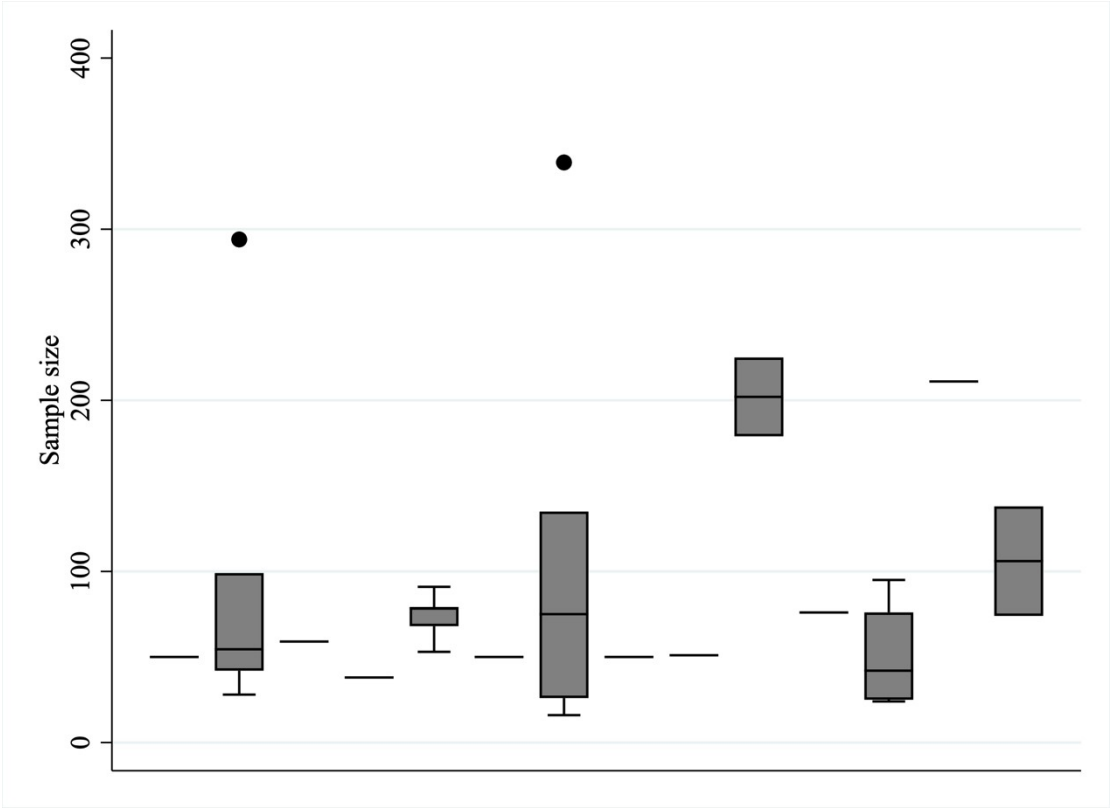
**Supplementary Figure S2: Box plots showing the distribution of the mean duration of diabetes (years) in the trials across the available direct comparisons.**



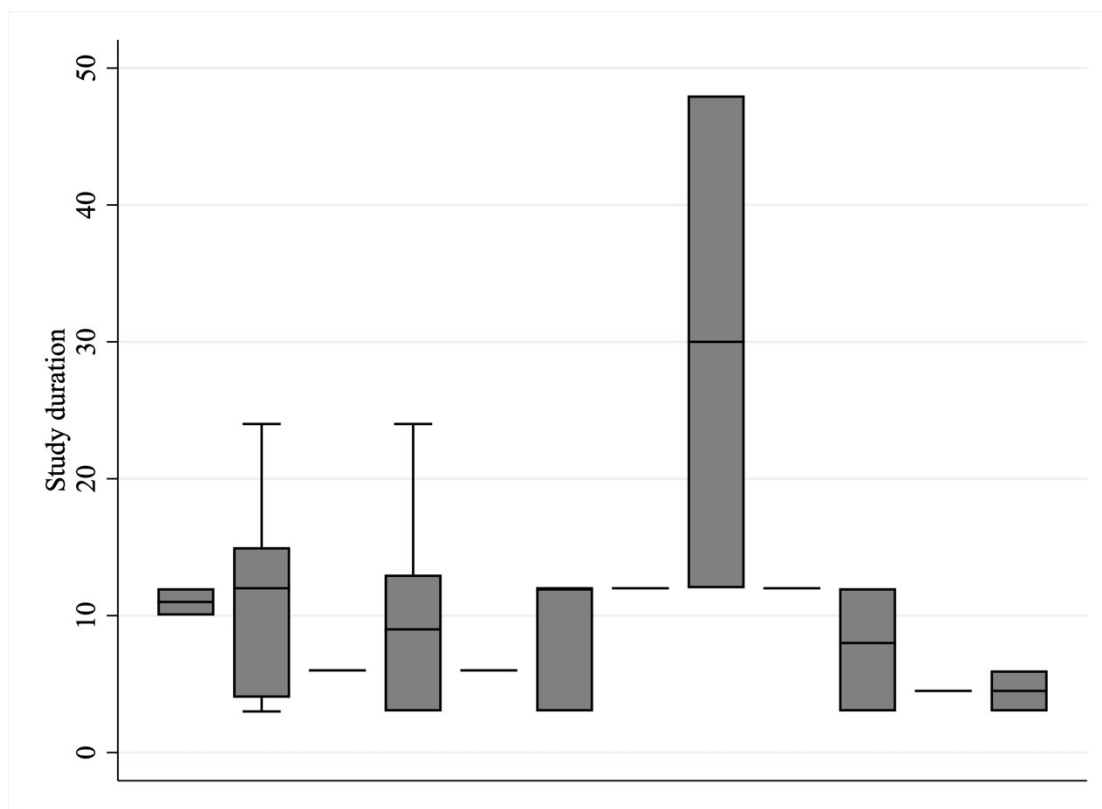
**Supplementary Figure S3: Box plots showing the distribution of the mean age (years) of the trials across the available direct comparisons.**



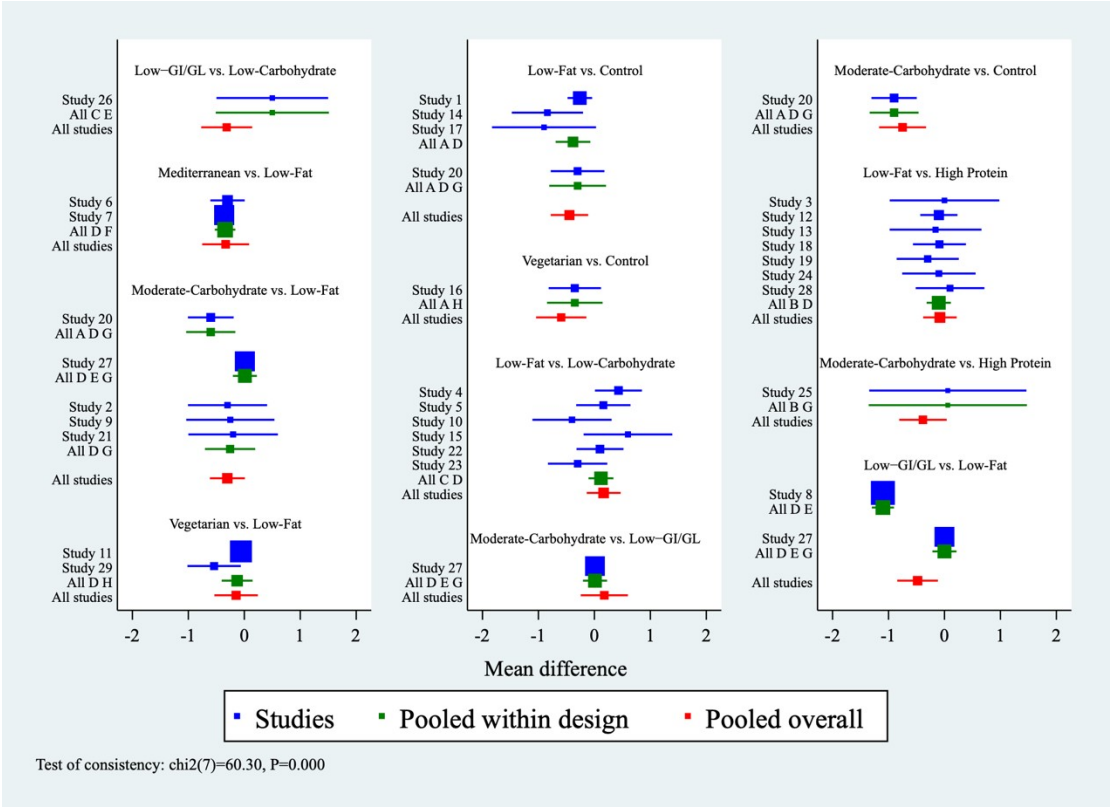
**Supplementary Figure S4: Box plots showing the distribution of the sample size of the trials across the available direct comparisons.**



**Supplementary Figure S5: Box plots showing the distribution of the study duration of the trials across the available direct comparisons.**

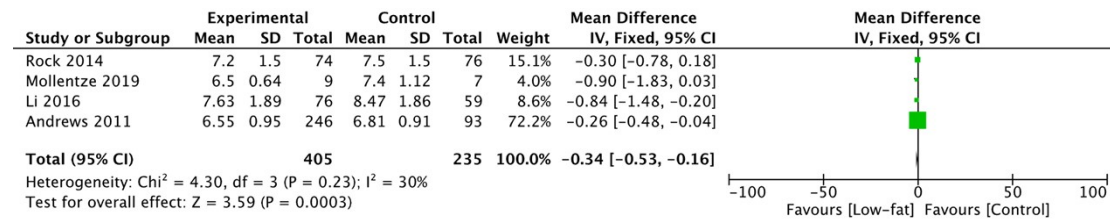


**Supplementary Figure S6: Forest plots for network meta-analysis of HbA1c**

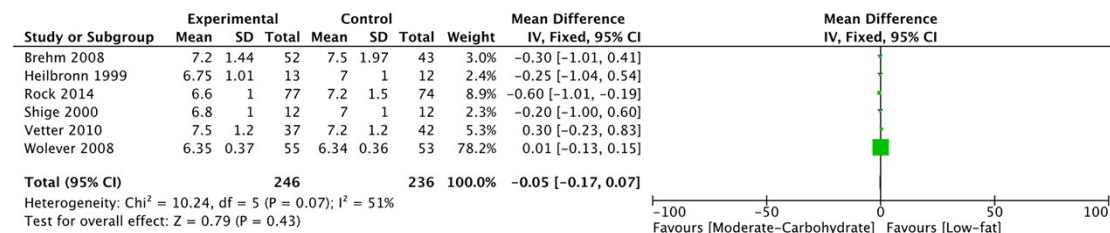


## Supplementary Figures S7: Forest plot for each direct pairwise comparison of HbA1c

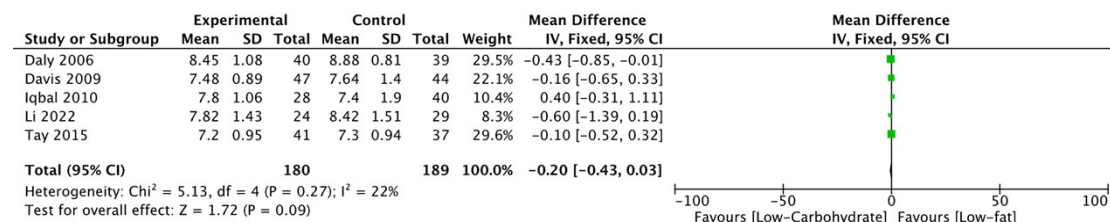
### 7.1 Low-fat vs. Control



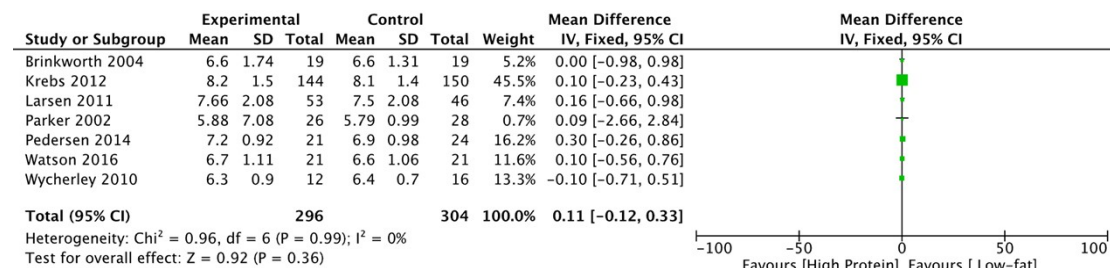
### 7.2 Moderate-Carbohydrate vs. Low-fat



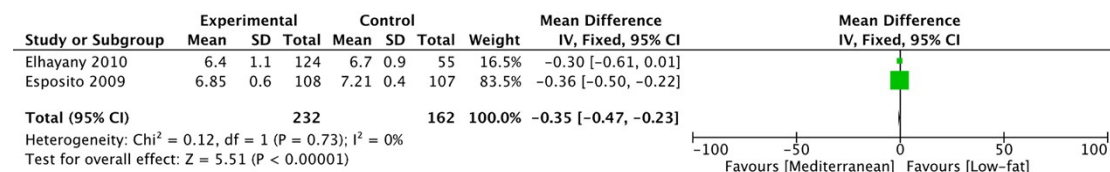
### 7.3 Low-Carbohydrate vs. Low-fat



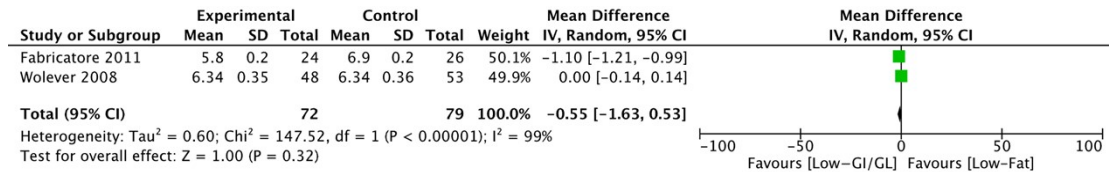
### 7.4 High Protein vs. Low-fat



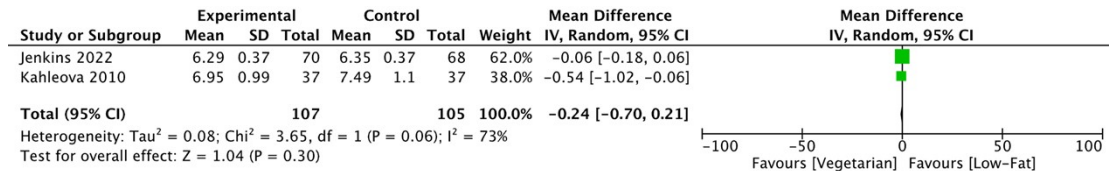
### 7.5 Mediterranean vs. Low-fat



### 7.6 Low-GI/GL vs. Low-Fat

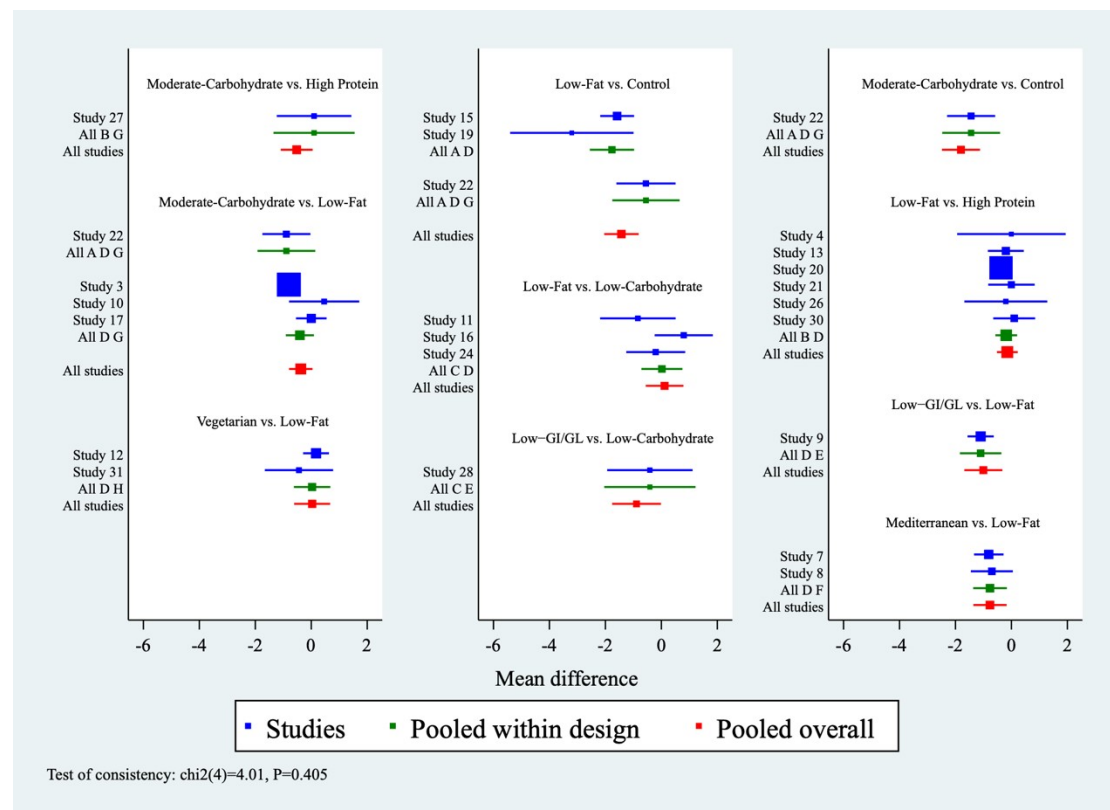


## 7.7 Vegetarian vs. Low-Fat



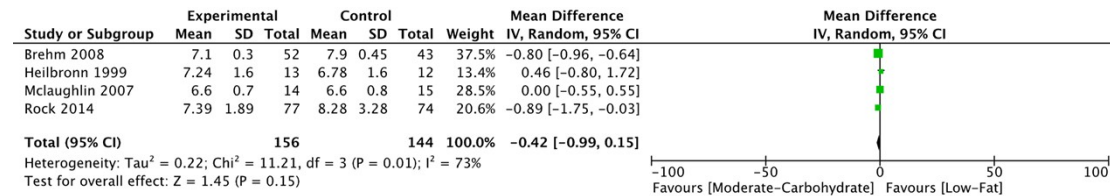


## Supplementary Figure S8: Forest plots for network meta-analysis of fasting glucose

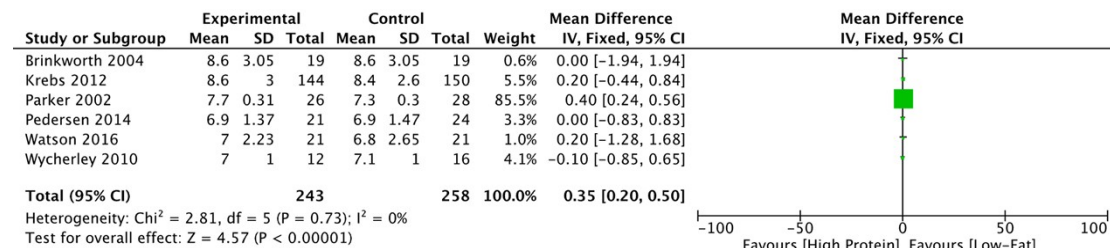


## Supplementary Figures S9: Forest plot for each direct pairwise comparison of fasting glucose

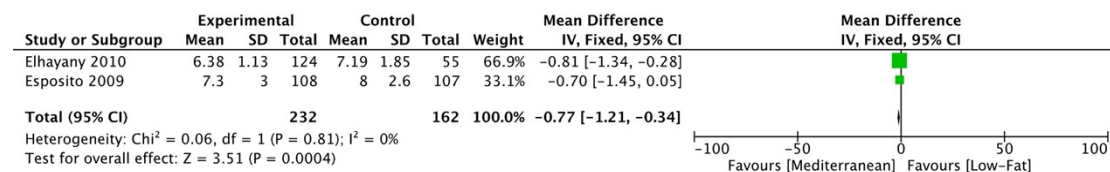
### 9.1 Moderate-Carbohydrate vs. Low-Fat



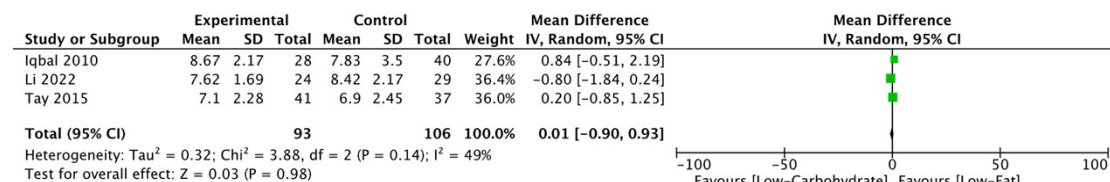
### 9.2 High Protein vs. Low-Fat



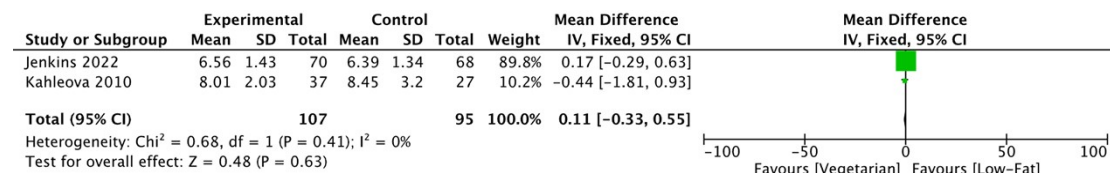
### 9.3 Mediterranean vs. Low-Fat



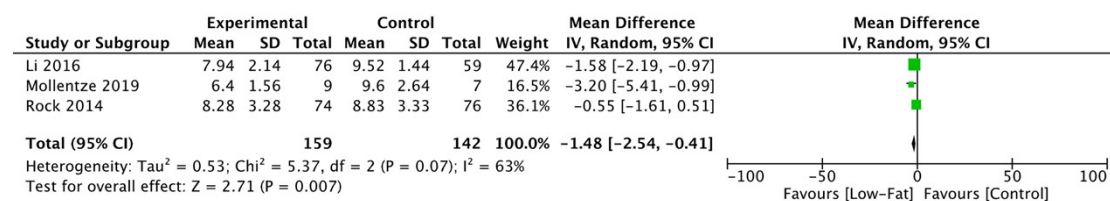
### 9.4 Low-Carbohydrate vs. Low-Fat



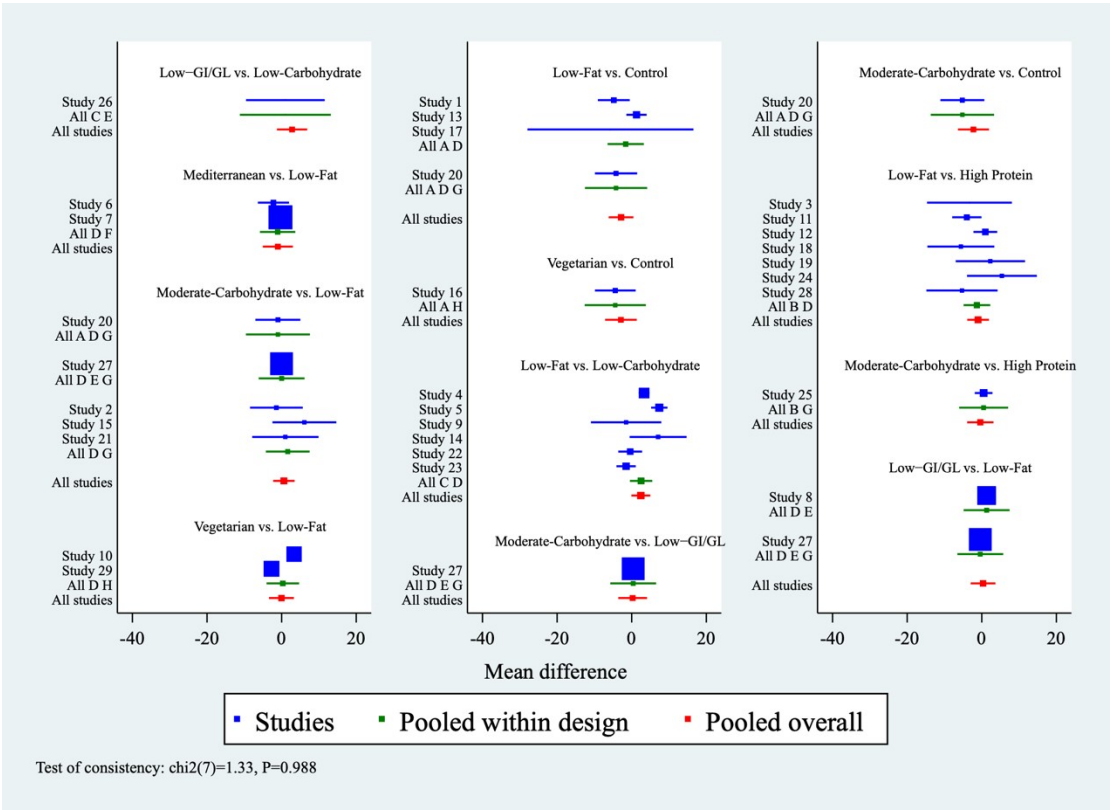
### 9.5 Vegetarian vs. Low-Fat



### 9.6 Low-Fat vs. Control

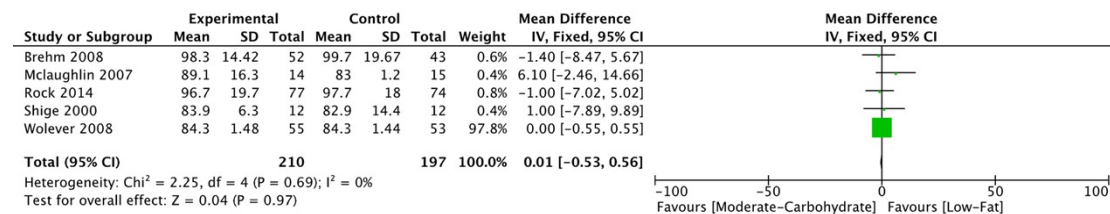


**Supplementary Figure S10: Forest plots for network meta-analysis of body weight**

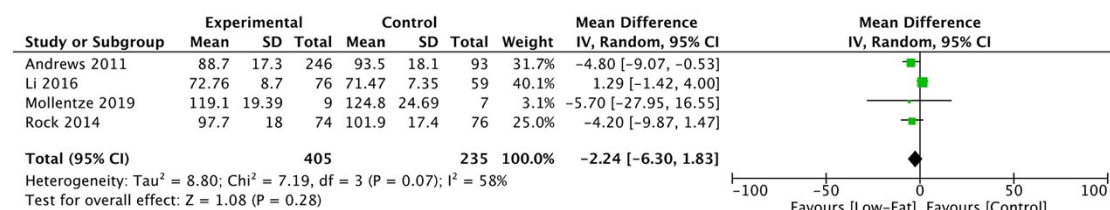


## Supplementary Figures S11: Forest plot for each direct pairwise comparison of body weight

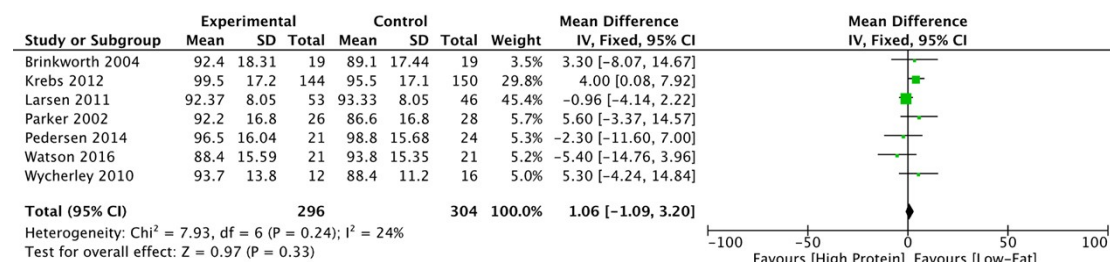
### 11.1 Moderate-Carbohydrate vs. Low-Fat



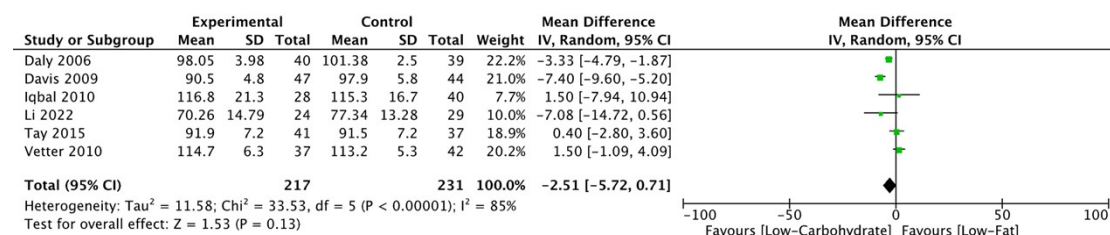
### 11.2 Low-Fat vs. Control



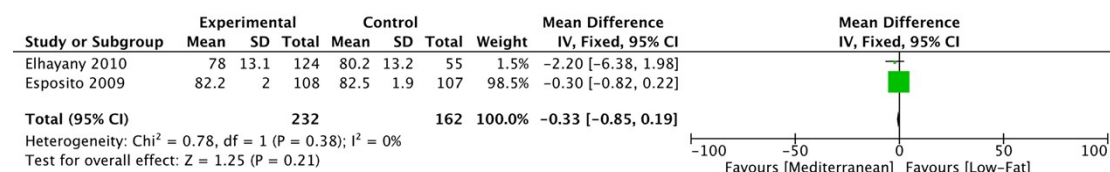
### 11.3 High Protein vs. Low-Fat



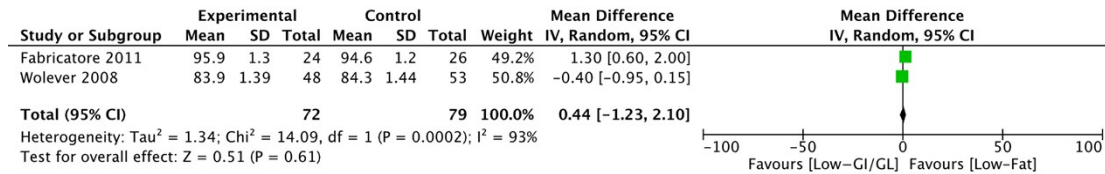
### 11.4 Low-Carbohydrate vs. Low-Fat



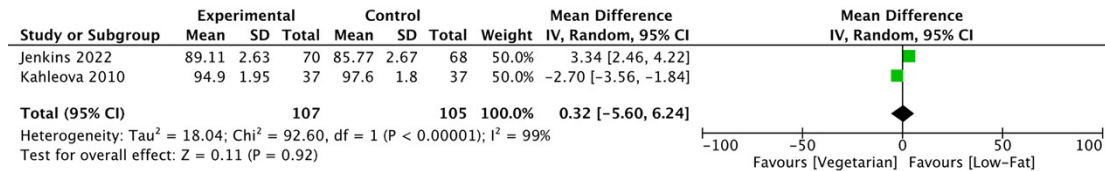
### 11.5 Mediterranean vs. Low-Fat



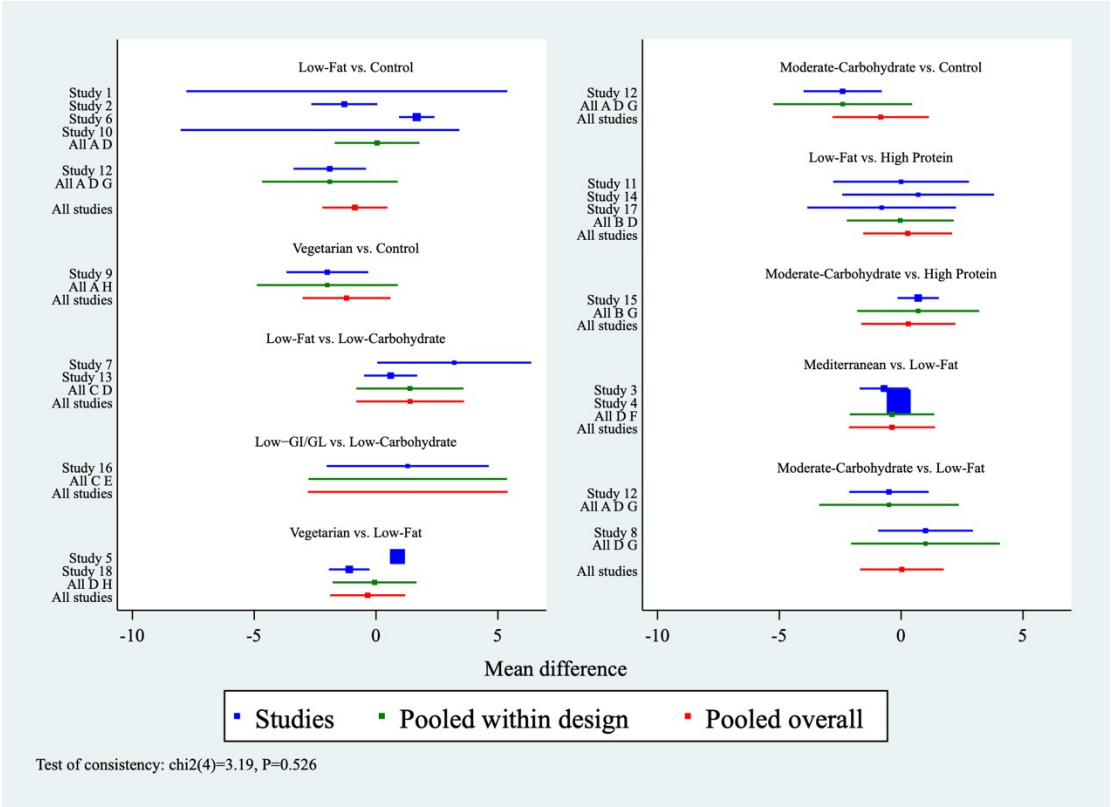
### 11.6 Low-GI/GL vs. Low-Fat



## 11.7 Vegetarian vs. Low-Fat

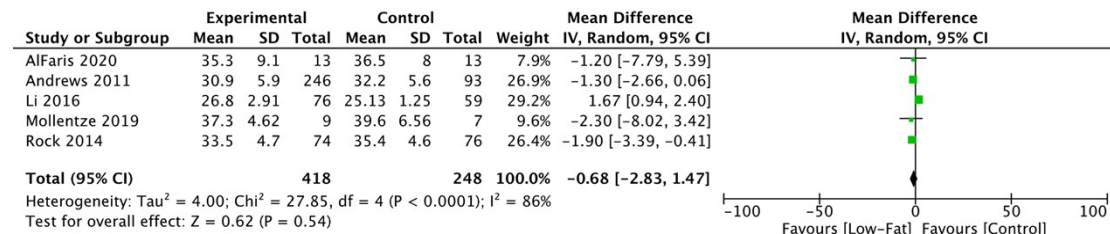


**Supplementary Figure S12: Forest plots for network meta-analysis of BMI**

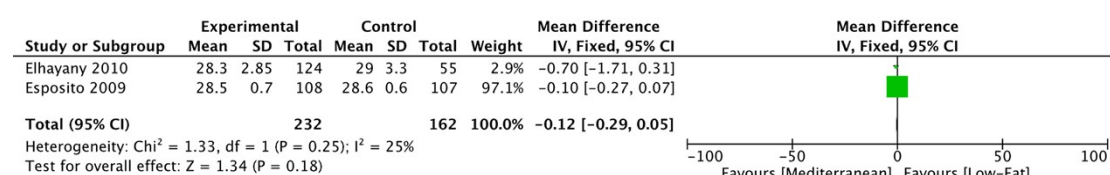


## Supplementary Figures S13: Forest plot for each direct pairwise comparison of BMI

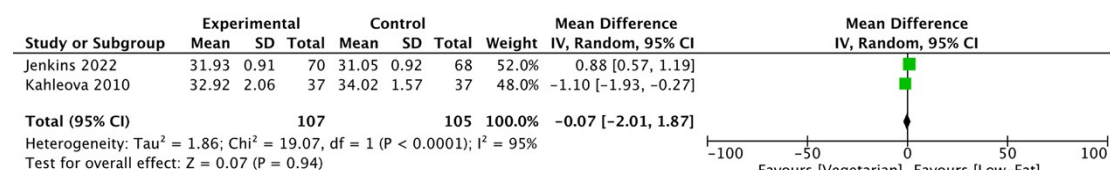
### 13.1 Low-Fat vs. Control



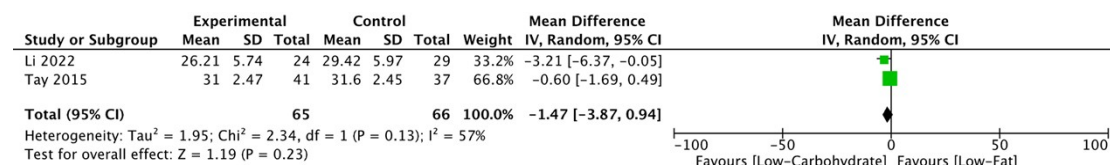
### 13.2 Mediterranean vs. Low-Fat



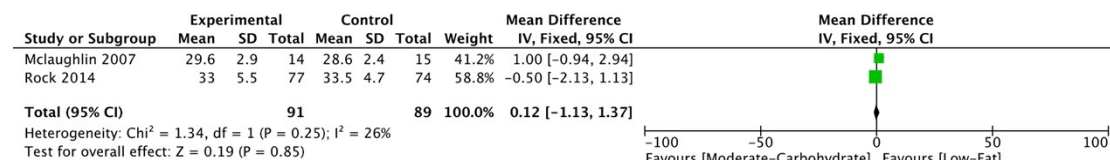
### 13.3 Vegetarian vs. Low-Fat



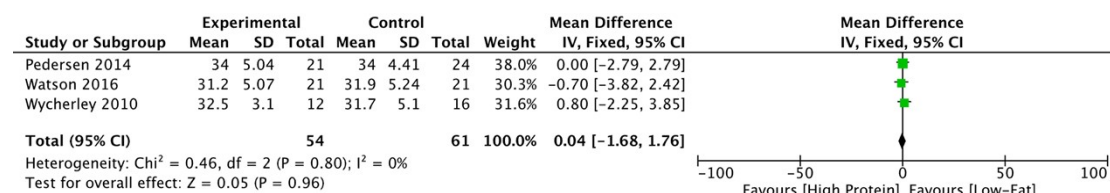
### 13.4 Low-Carbohydrate vs. Low-Fat



### 13.5 Moderate-Carbohydrate vs. Low-Fat

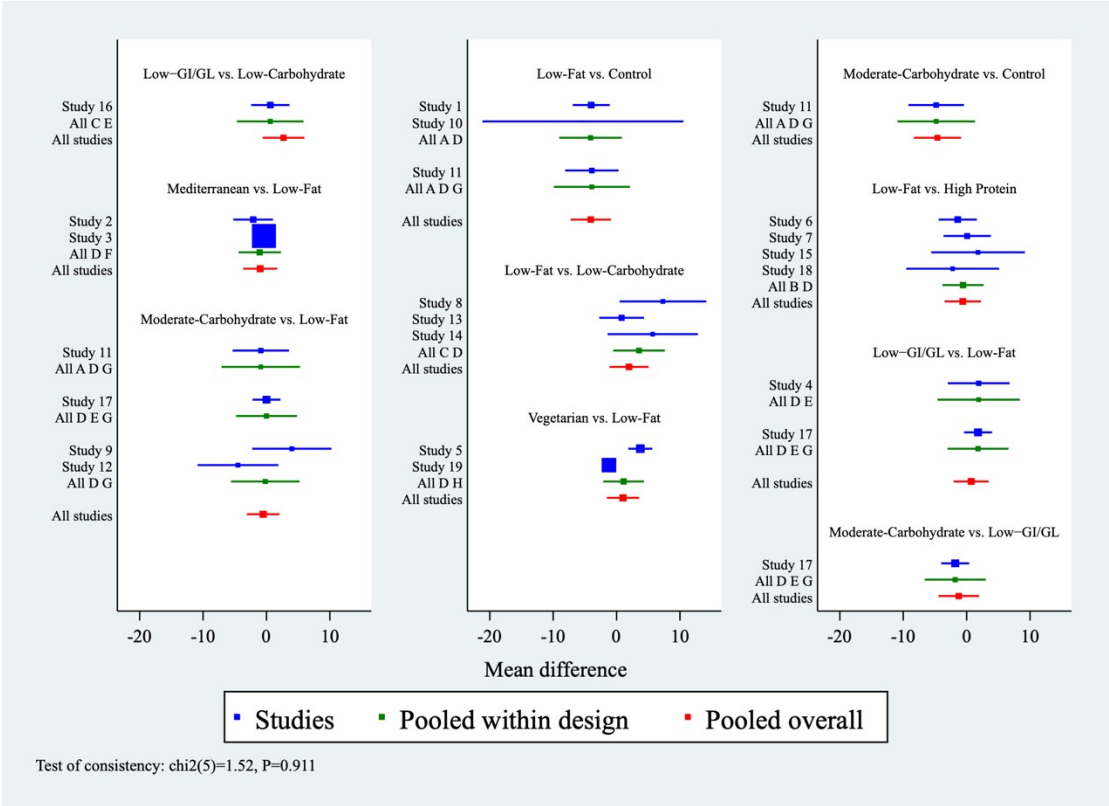


### 13.6 High Protein vs. Low-Fat





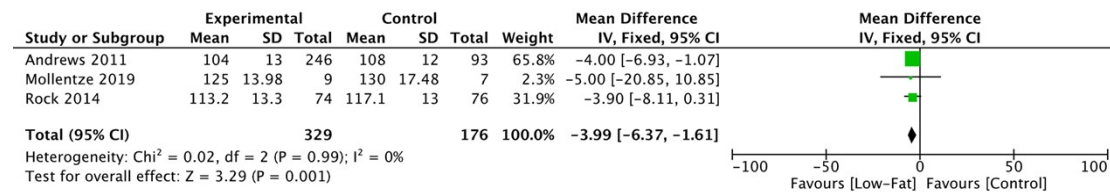
Supplementary Figure S14: Forest plots for network meta-analysis of waist circumference



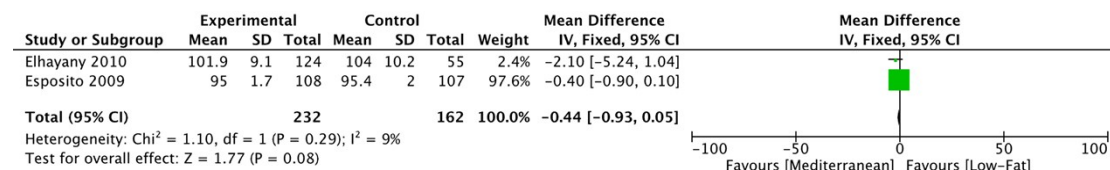


## Supplementary Figures S15: Forest plot for each direct pairwise comparison of waist circumference

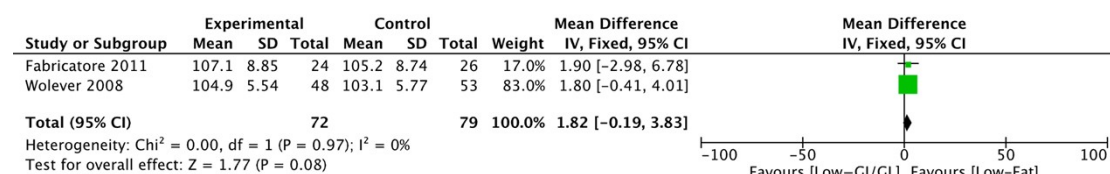
### 15.1 Low-Fat vs. Control



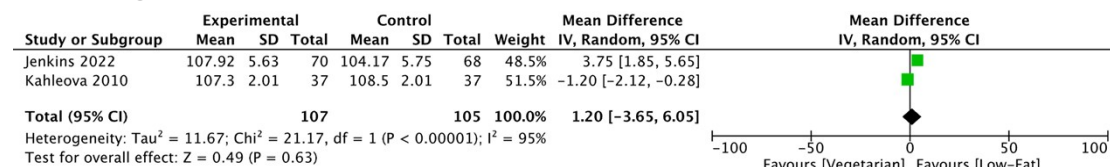
### 15.2 Mediterranean vs. Low-Fat



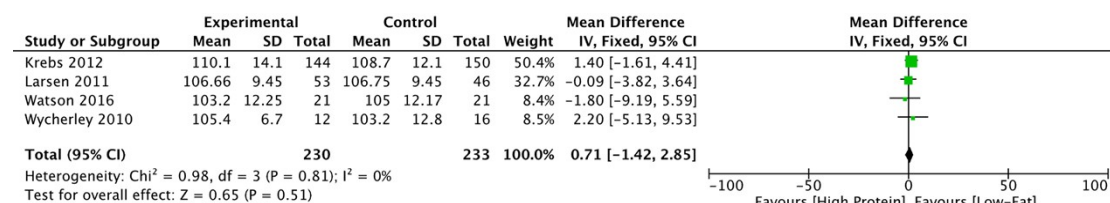
### 15.3 Low-GI/GL vs. Low-Fat



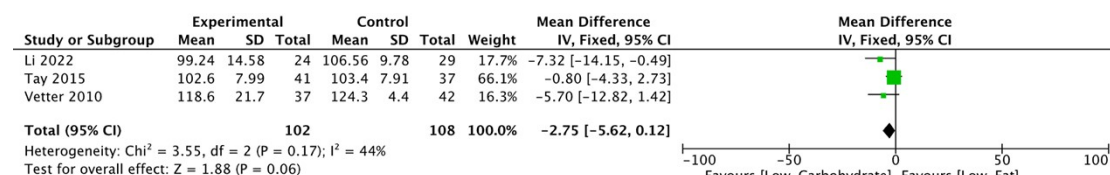
### 15.4 Vegetarian vs. Low-Fat



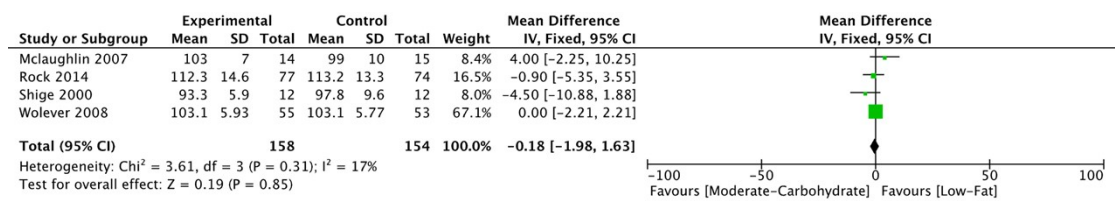
### 15.5 High Protein vs. Low-Fat



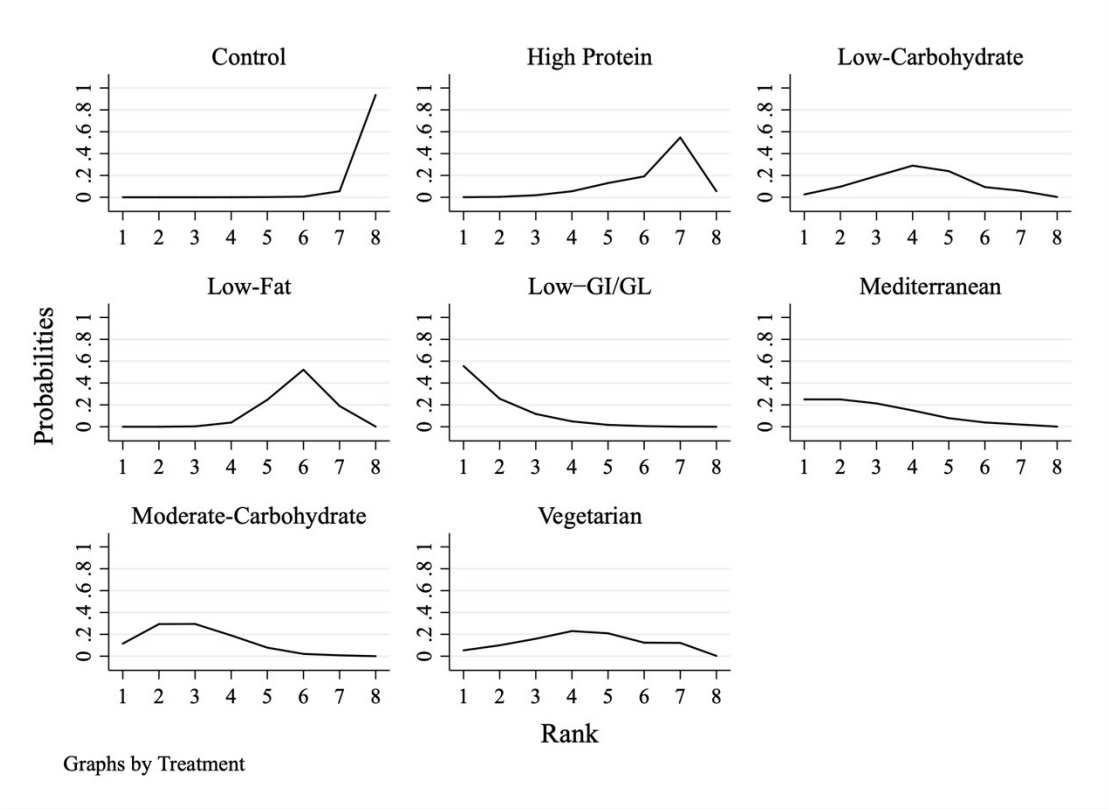
### 15.6 Low-Carbohydrate vs. Low-Fat



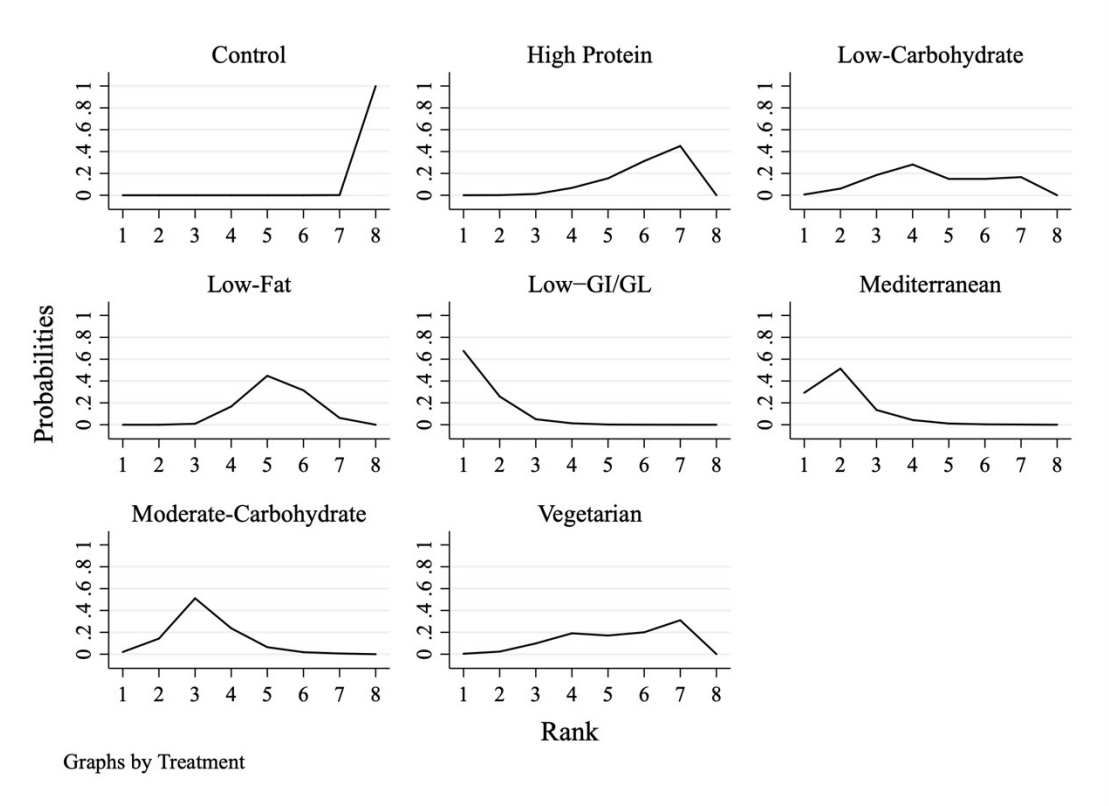
### 15.7 Moderate-Carbohydrate vs. Low-Fat



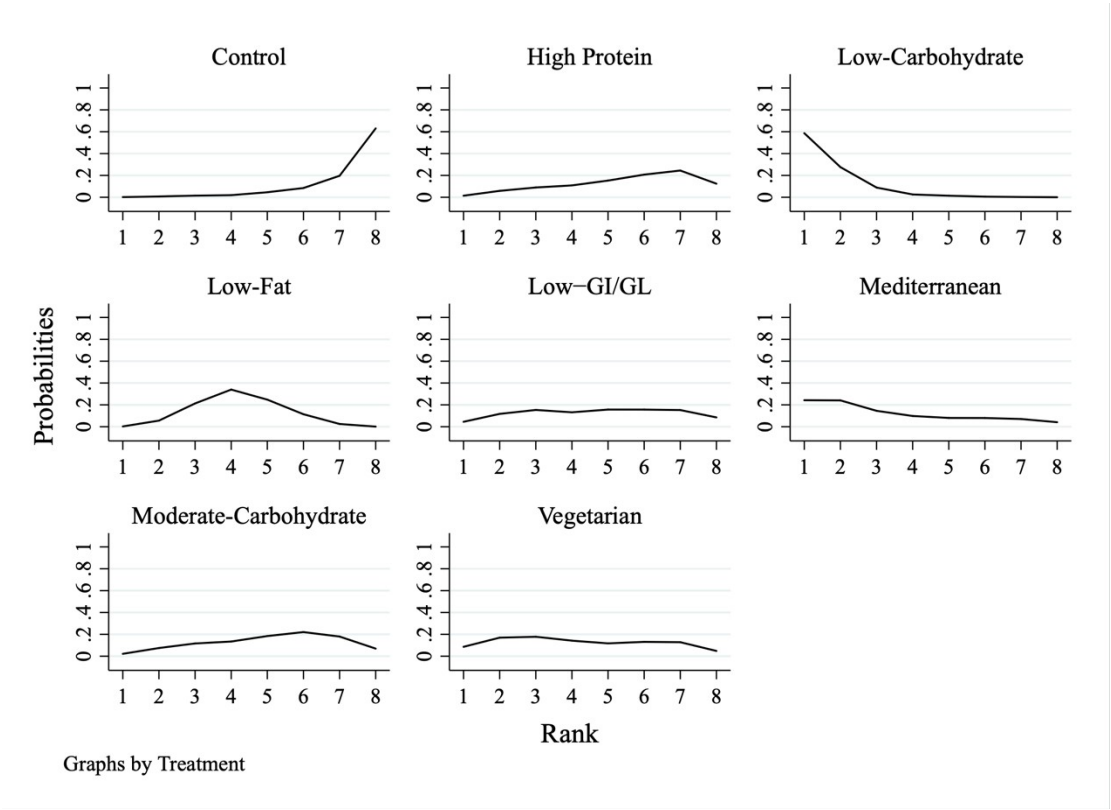
Supplementary Figure S16: Treatment Relative Ranking: HbA1c



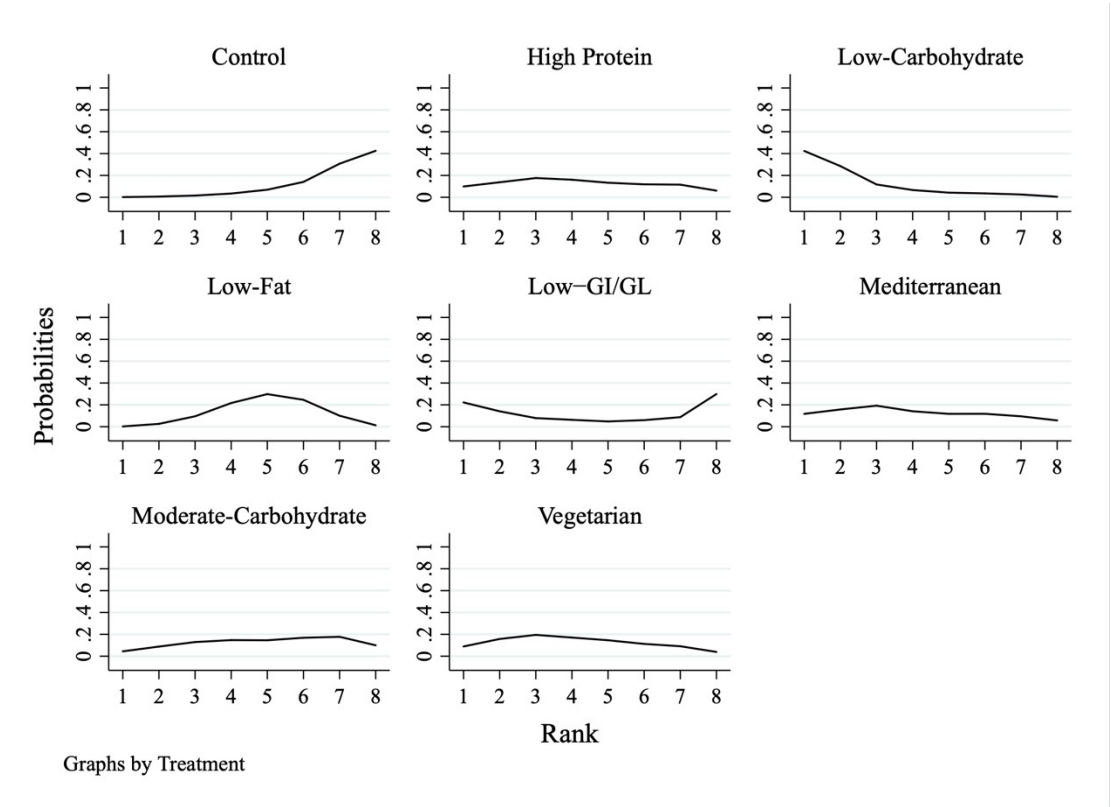
**Supplementary Figure S17: Treatment Relative Ranking: fasting glucose**



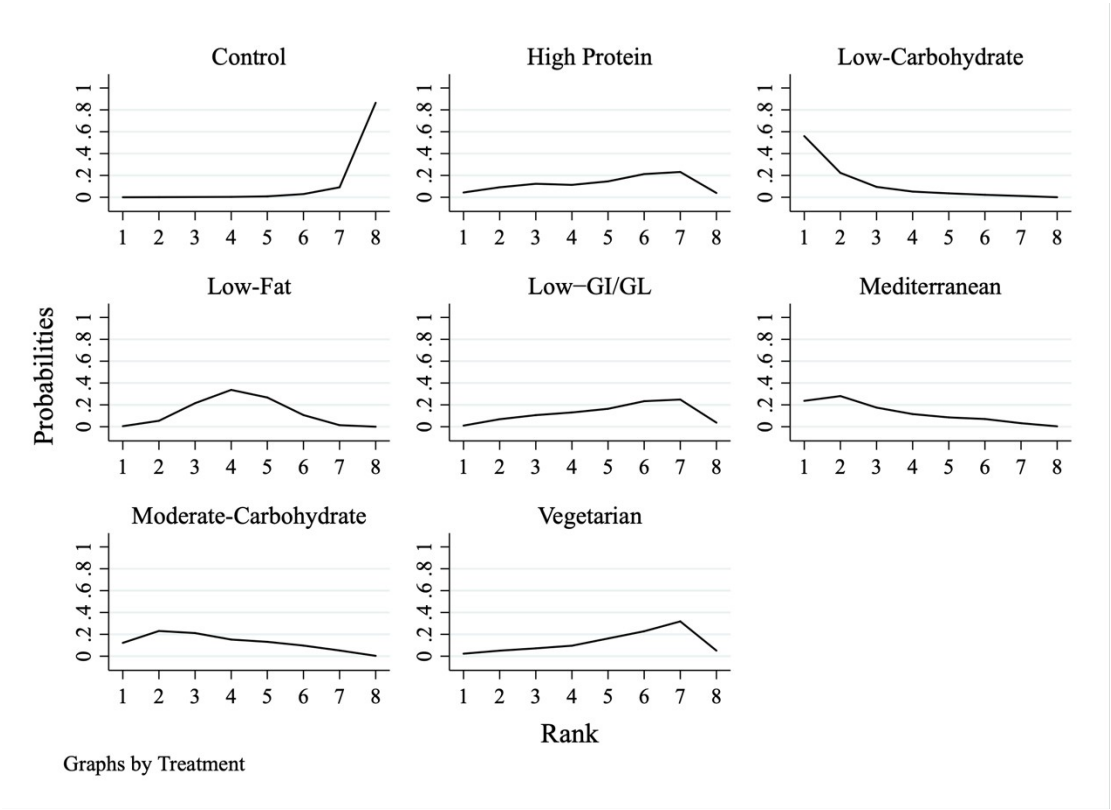
**Supplementary Figure S18: Treatment Relative Ranking: body weight**



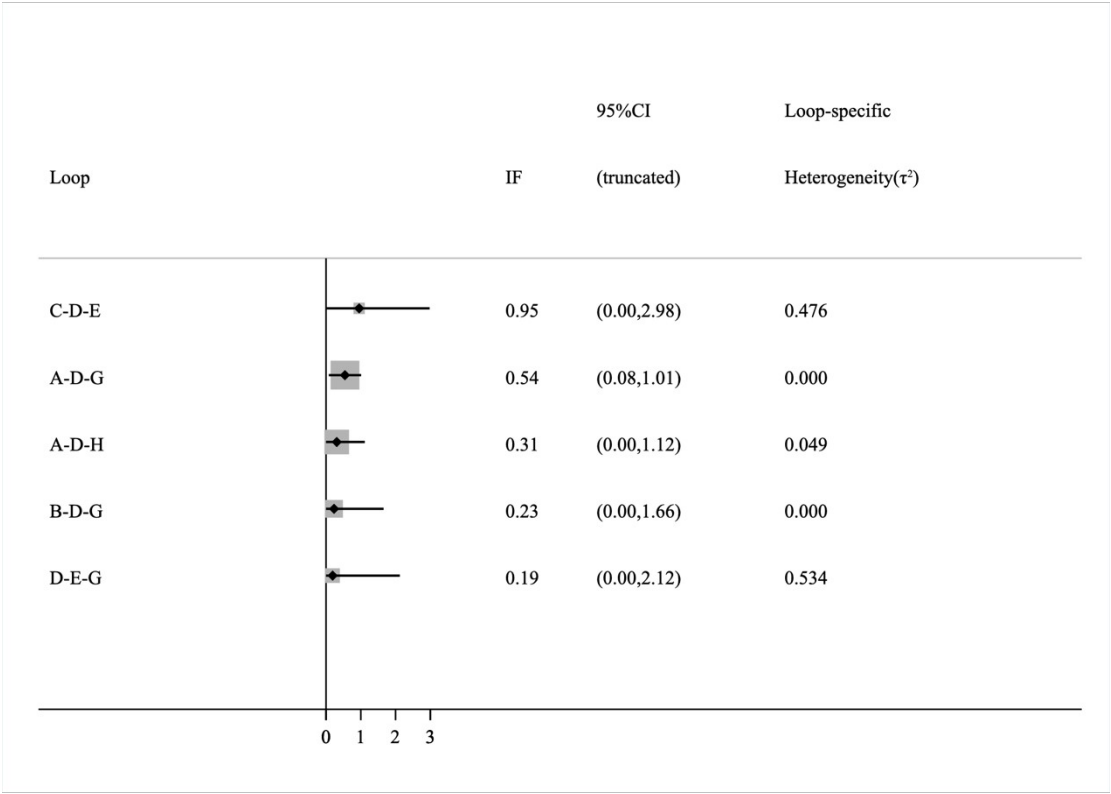
Supplementary Figure S19: Treatment Relative Ranking: BMI



Supplementary Figure S20: Treatment Relative Ranking: waist circumference



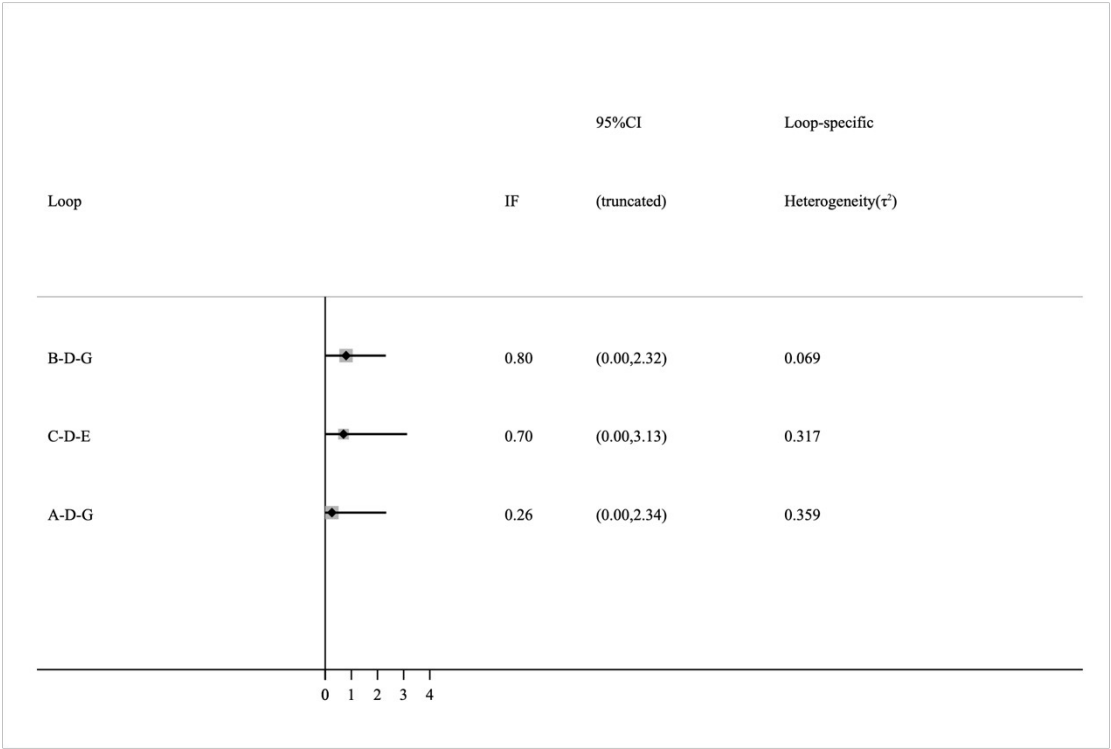
**Supplementary Figure S21: Evaluation of inconsistency using loop-specific approach for HbA1c.**



A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.

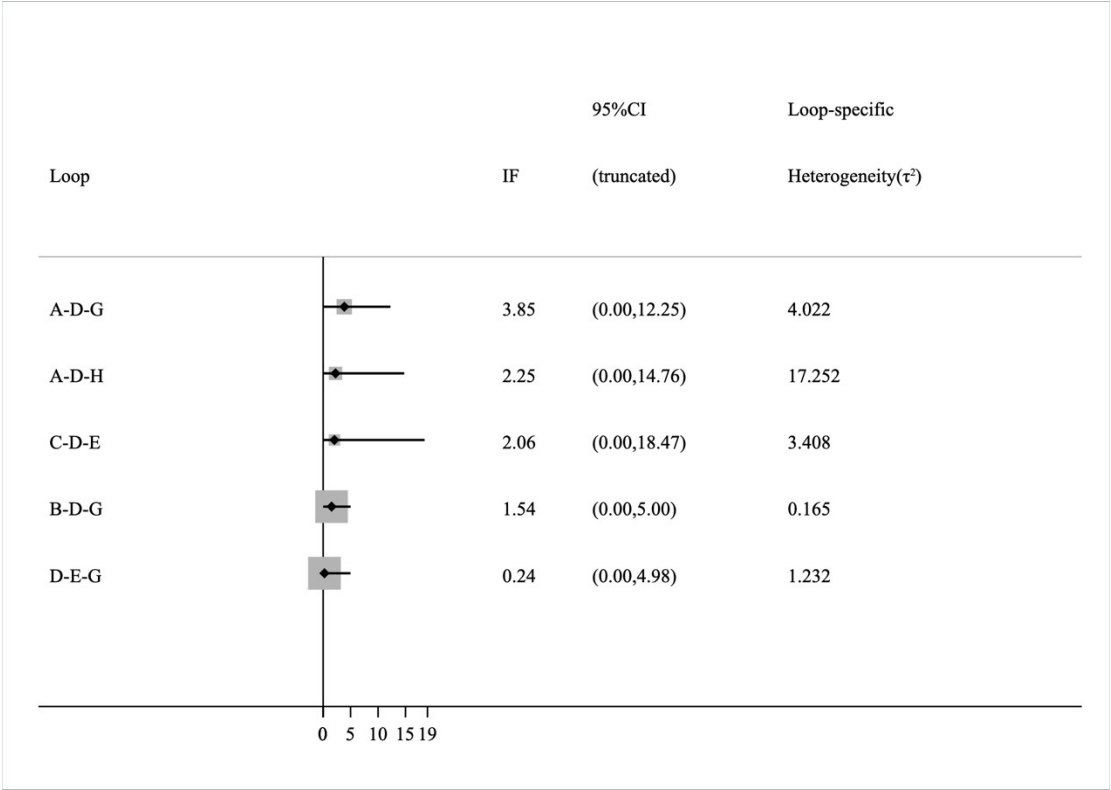


**Supplementary Figure S22: Evaluation of inconsistency using loop-specific approach for fasting glucose.**



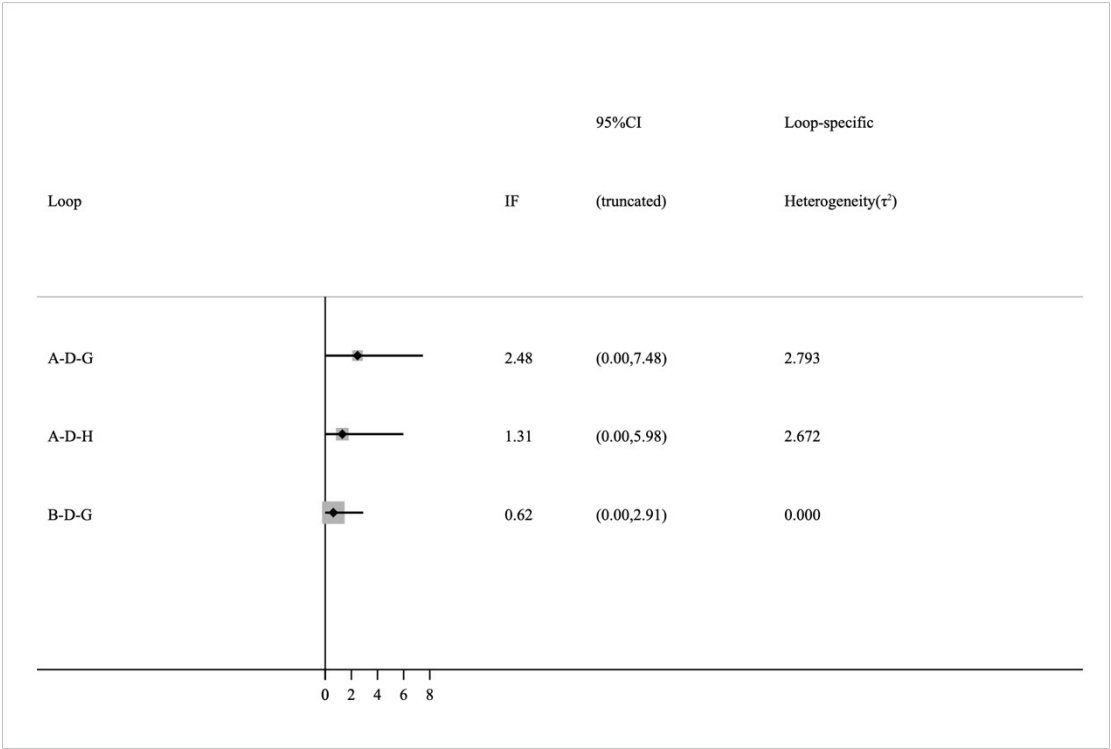
A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, G=Moderate-Carbohydrate. GI/GL, glycaemic index/load.

**Supplementary Figure S23: Evaluation of inconsistency using loop-specific approach for body weight.**



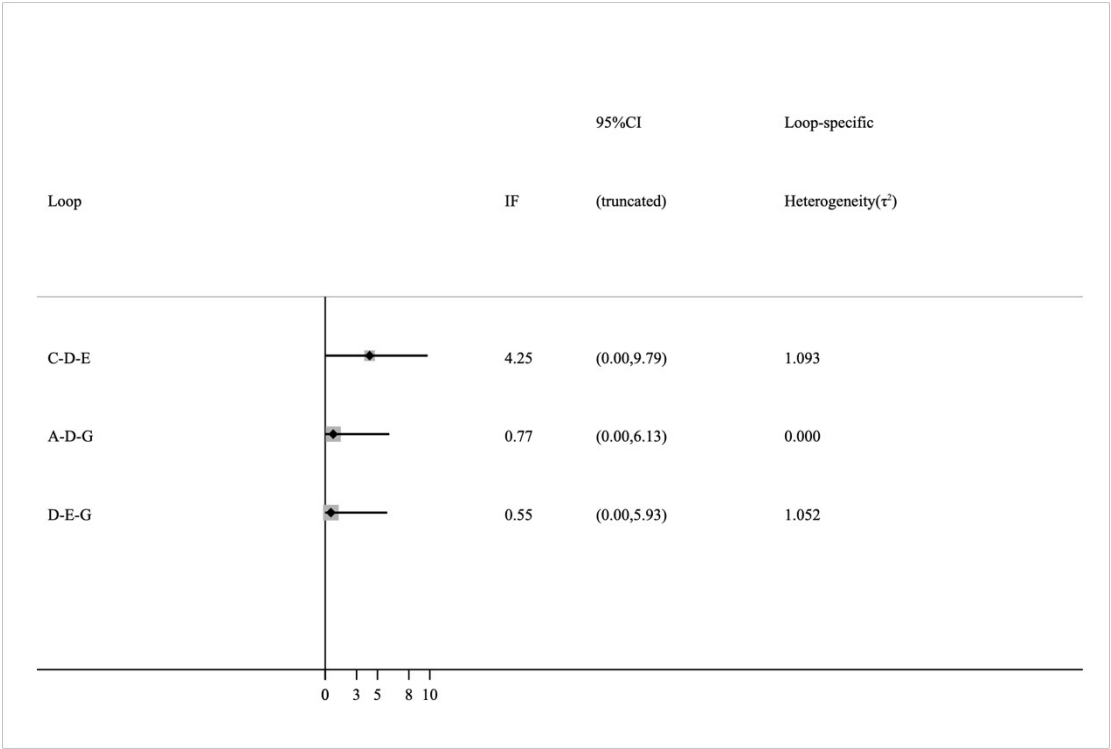
A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.

**Supplementary Figure S24: Evaluation of inconsistency using loop-specific approach for BMI.**



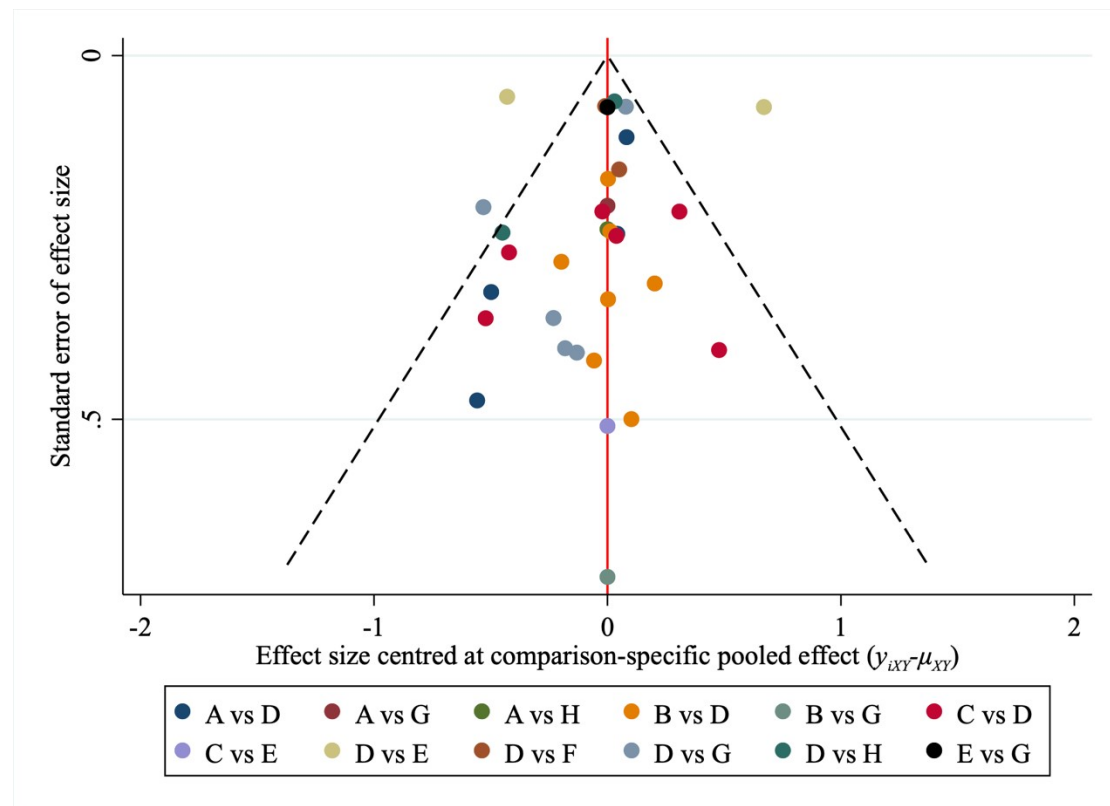
A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.

**Supplementary Figure S25: Evaluation of inconsistency using loop-specific approach for waist circumference.**



A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.

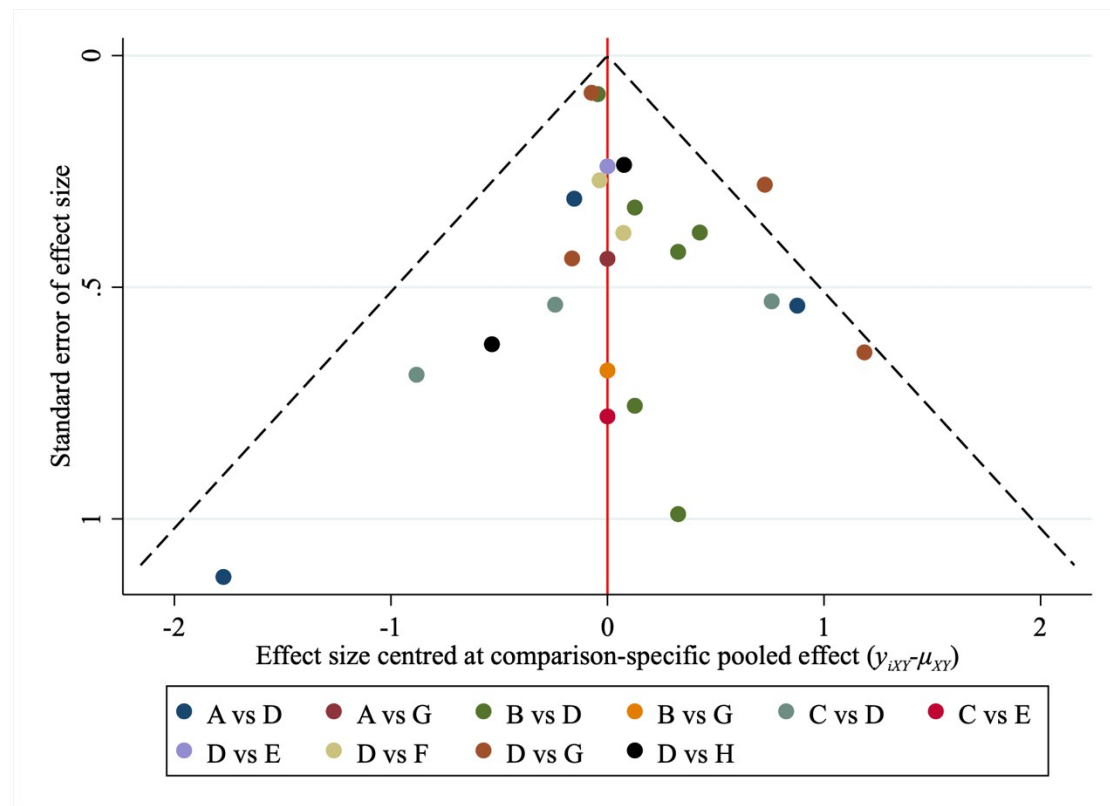
**Supplementary Figure S26: Comparison-adjusted funnel plot for HbA1c.**



Egger's test  $t = 0.77$   $P = 0.446$

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.

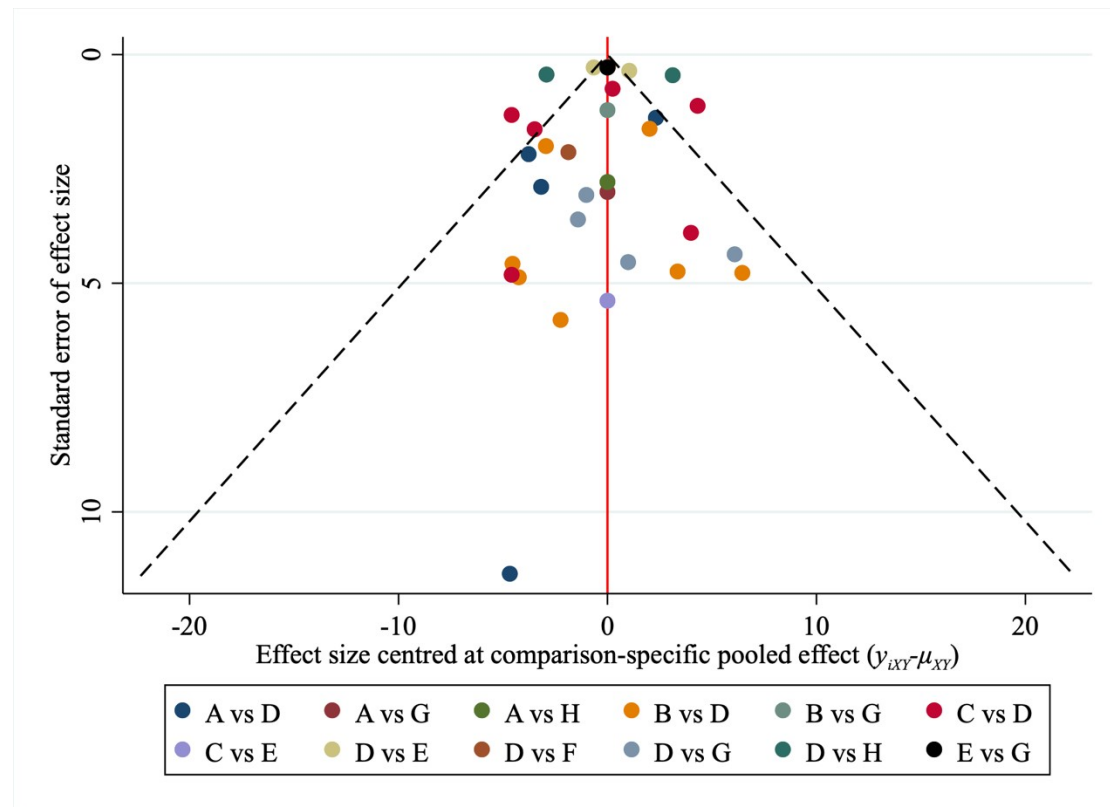
**Supplementary Figure S27: Comparison-adjusted funnel plot for fasting glucose.**



Egger's test  $t = 0.58$   $P = 0.570$

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.

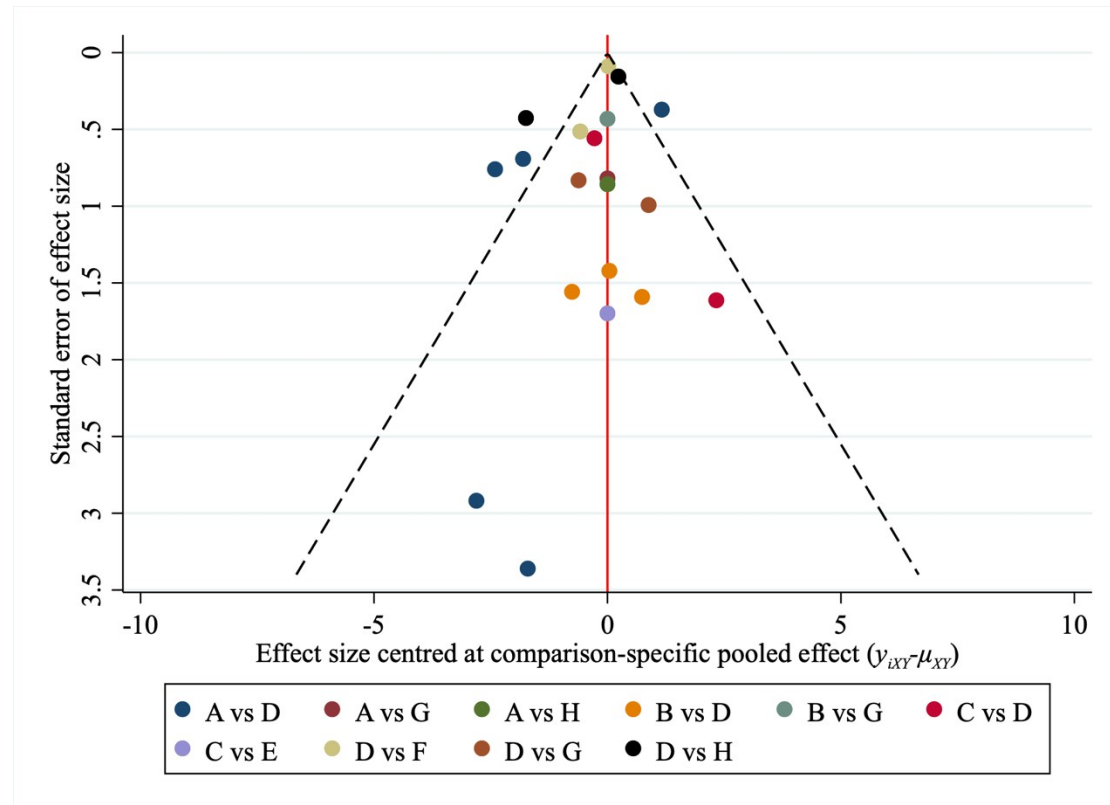
**Supplementary Figure S28: Comparison-adjusted funnel plot for body weight.**



Egger's test  $t = -0.08$   $P = 0.935$

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.

**Supplementary Figure S29: Comparison-adjusted funnel plot for BMI.**

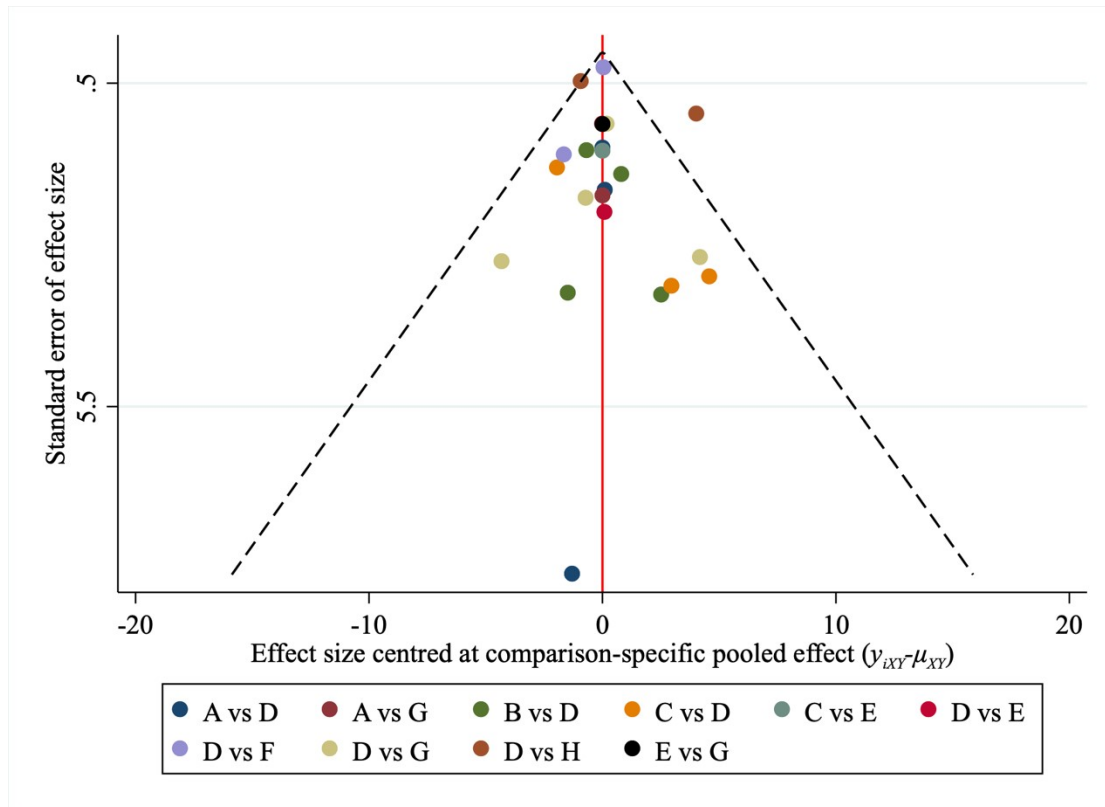


Egger's test  $t = -0.53$   $P = 0.602$

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load.



**Supplementary Figure S30: Comparison-adjusted funnel plot for waist circumference.**



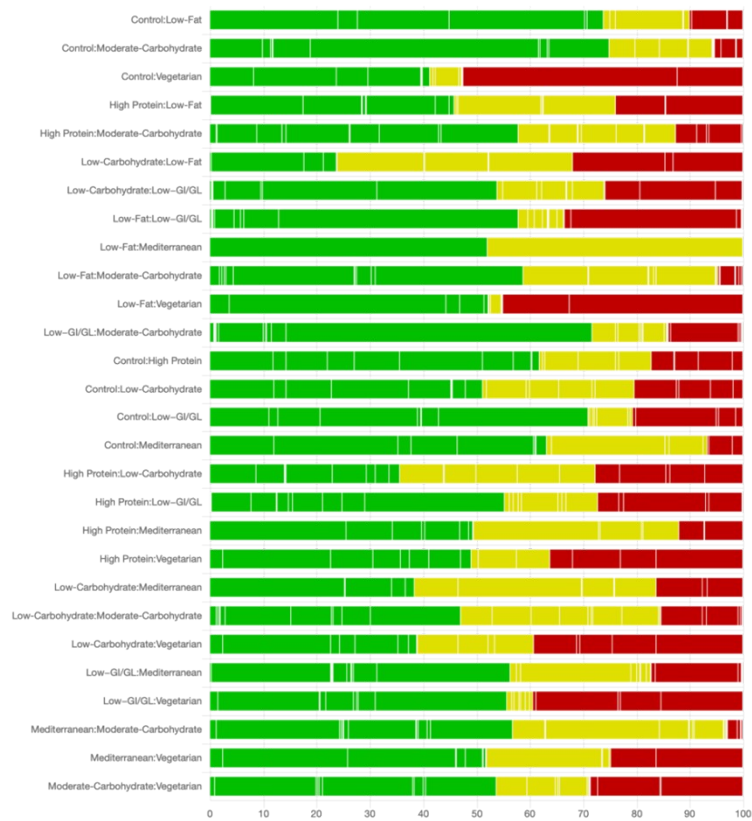
Egger's test  $t = 0.34$   $P = 0.737$

A=Control, B=High Protein, C=Low-Carbohydrate, D=Low-Fat, E=Low-GI/GL, F=Mediterranean, G=Moderate-Carbohydrate, H=Vegetarian. GI/GL, glycaemic index/load

## Credibility of evidence

### 1. HbA1c

#### 1.1 Supplementary Figure S31: Risk of Bias Chart showing the contribution of low, moderate, or high RoB comparisons to each network estimate.



## 1.2 Supplementary Table S36: Evaluation of the Certainty of evidence Using CINEMA Framework.

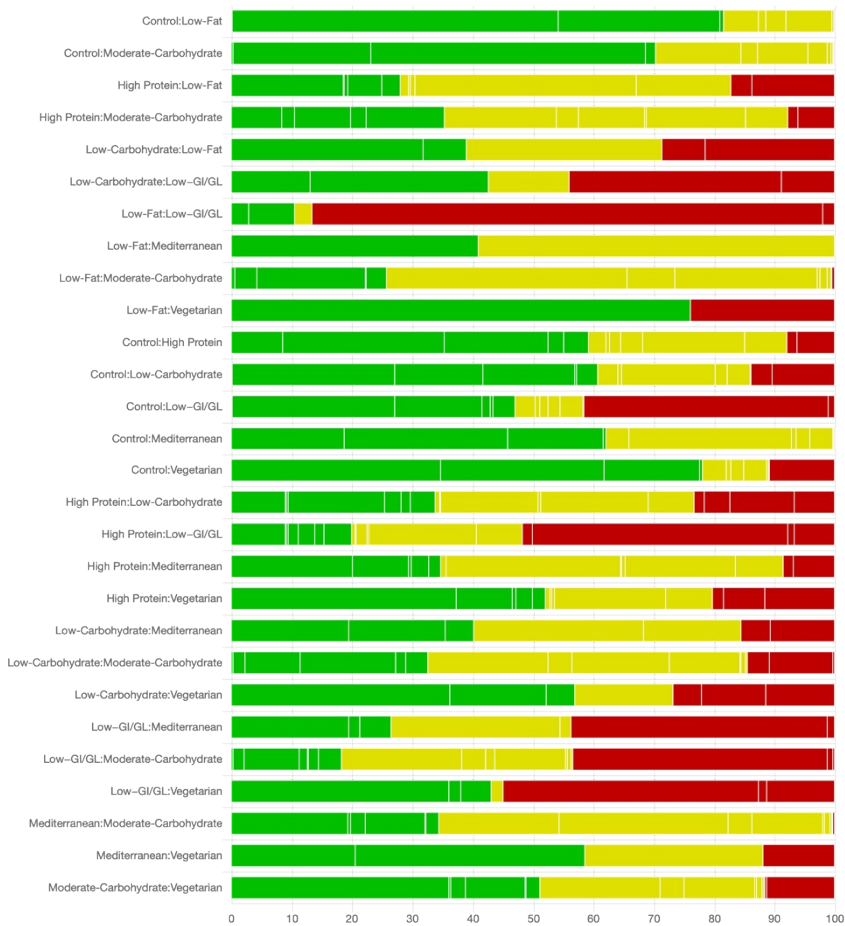
Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason(s) for downgrading
Mixed evidence									
Control:Low-Fat	4	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	low	["Heterogeneity"]
Control:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Control:Vegetarian	1	Major concerns	High risk	No concerns	Some concerns	Some concerns	No concerns	Very low	["Within-study bias","Reporting bias","Imprecision","Heterogeneity"]
High Protein:Low-Fat	7	No concerns	Some concerns	No concerns	No concerns	Major concerns	No concerns	Very low	["Reporting bias","Heterogeneity"]
High Protein:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Carbohydrate:Low-Fat	6	Some concerns	High risk	No concerns	Some concerns	Some concerns	No concerns	Very low	["Within-study bias","Reporting bias","Imprecision","Heterogeneity"]
Low-Carbohydrate:Low GI/GL	1	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Fat:Low GI/GL	2	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Fat:Mediterranean	2	No concerns	Low risk	No concerns	Some	Some concerns	Major	Very low	["Imprecision","Heterogeneity"]

					concerns		concerns		eity", "Incoherence"]
Low-Fat: Moderate-Carbohydrate	5	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision", "Heterogeneity"]
Low-Fat: Vegetarian	2	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision", "Heterogeneity"]
LowGI/GL: Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	low	["Imprecision"]
<b>Indirect evidence</b>									
Control: High Protein	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	Major concerns	Very low	["Imprecision", "Heterogeneity", "Incoherence"]
Control: Low-Carbohydrate	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Heterogeneity", "Incoherence"]
Control: Low GI/GL	0	No concerns	Low risk	No concerns	No concerns	Some concerns	Major concerns	Very low	["Heterogeneity", "Incoherence"]
Control: Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	No concerns	Major concerns	Very low	["Imprecision", "Incoherence"]
High Protein: Low-Carbohydrate	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	Major concerns	Very low	["Within-study bias", "Imprecision", "Heterogeneity", "Incoherence"]
High Protein: Low GI/GL	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	Major concerns	Very low	["Imprecision", "Heterogeneity", "Incoherence"]
High Protein: Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	Major concerns	Very low	["Imprecision", "Heterogeneity", "Incoherence"]
High Protein: Vegetarian	0	No concerns	Low risk	No concerns	Major	No concerns	Major	Very low	["Imprecision", "Incoherence"]

					concerns		concerns		ce"]
Low-Carbohydrate:Mediterranean	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
Low-Carbohydrate:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
Low-Carbohydrate:Vegetarian	0	Major concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
Low GI/GL:Mediterranean	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
Low GI/GL:Vegetarian	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
Mediterranean:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
Mediterranean:Vegetarian	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
Moderate-Carbohydrate:Vegetarian	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]

## 2. fasting glucose

**2.1 Supplementary Figure S32: Risk of Bias Chart showing the contribution of low, moderate, or high RoB comparisons to each network estimate.**



**2.2 Supplementary Table S37: Evaluation of the Certainty of evidence Using CINEMA Framework**

Comparison	Number of Studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason(s) for downgrading
Mixed evidence									
Control vs Low-Fat	3	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Control vs Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
High Protein vs Low-Fat	6	Some concerns	Some concerns	No concerns	No concerns	No concerns	No concerns	Low	["Within-study bias", "Reporting bias"]
High Protein vs Moderate-Carbohydrate	1	Some concerns	Some concerns	No concerns	No concerns	No concerns	No concerns	Low	["Within-study bias", "Reporting bias"]
Low-Carbohydrate vs Low-Fat	3	Some concerns	High risk	No concerns	No concerns	No concerns	No concerns	Very low	["Within-study bias", "Reporting bias"]
Low-Carbohydrate vs Low-GI/GL	1	Some concerns	High risk	No concerns	Some concerns	No concerns	No concerns	Very low	["Within-study bias", "Reporting bias", "Imprecision"]
Low-Fat vs Low-GI/GL	1	Major concerns	High risk	No concerns	No concerns	Some concerns	No concerns	Very low	["Within-study bias", "Reporting bias", "Heterogeneity"]
Low-Fat vs Mediterranean	2	Some concerns	Some concerns	No concerns	No concerns	Some concerns	No concerns	Low	["Within-study bias", "Reporting bias", "Heterogeneity"]
Low-Fat vs Moderate-	4	Some	Some	No concerns	No concerns	No concerns	No concerns	Low	["Within-study

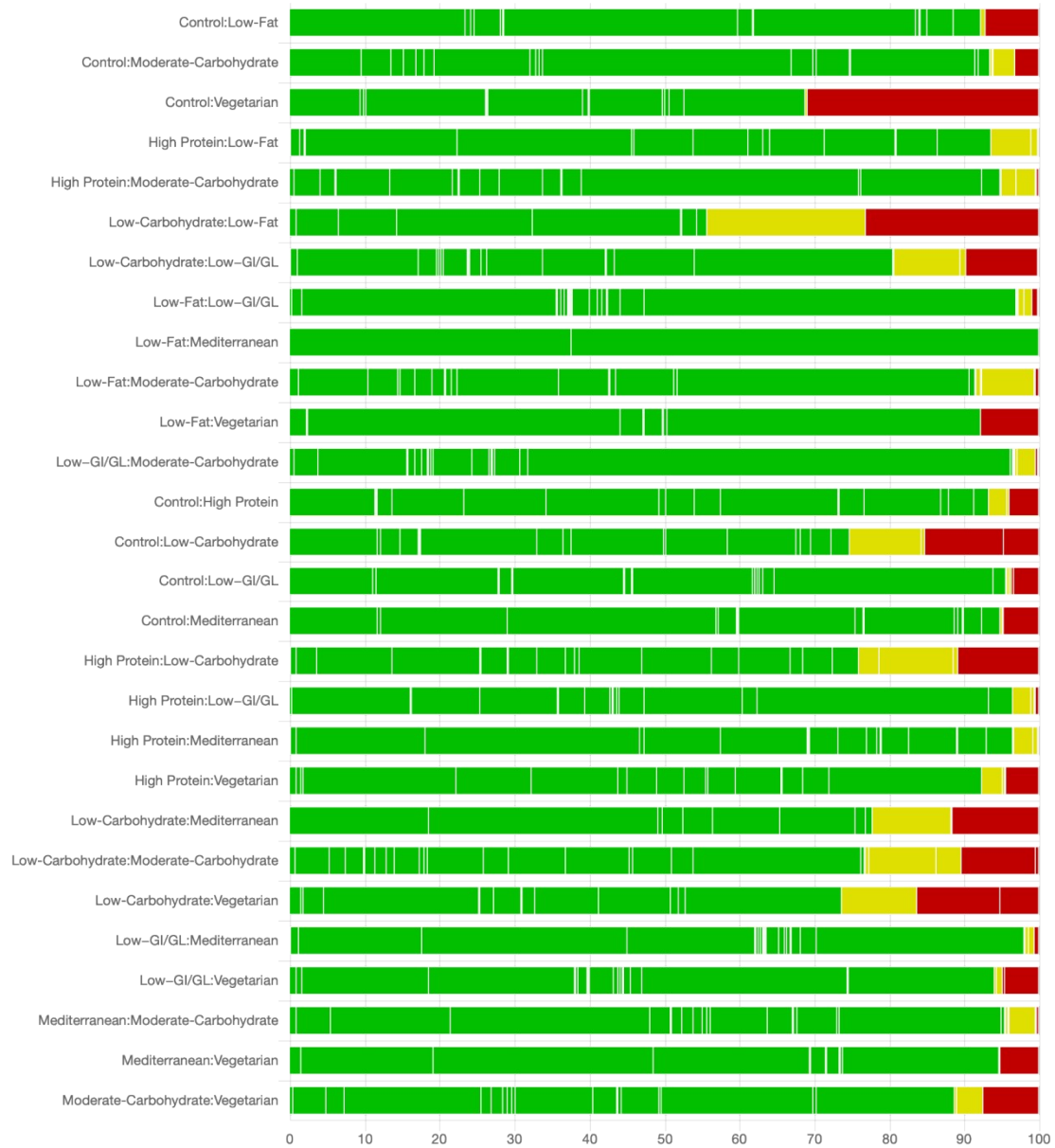
Carbohydrate		concerns	concerns						bias","Reporting bias"]
Low-Fat vs Vegetarian	2	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
<b>Indirect evidence</b>									
Control vs High Protein	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Control vs Low-Carbohydrate	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
Control vs Low-GI/GL	0	Some concerns	High risk	No concerns	No concerns	No concerns	No concerns	Very low	["Within-study bias","Reporting bias"]
Control vs Mediterranean	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Control vs Vegetarian	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
High Protein vs Low-Carbohydrate	0	Some concerns	Some concerns	No concerns	No concerns	No concerns	No concerns	Low	["Within-study bias","Reporting bias"]
High Protein vs Low-GI/GL	0	Some concerns	High risk	No concerns	No concerns	No concerns	No concerns	Very low	["Within-study bias","Reporting bias"]
High Protein vs Mediterranean	0	Some concerns	Some concerns	No concerns	No concerns	Some concerns	No concerns	Low	["Within-study bias","Reporting bias","Heterogeneity"]
High Protein vs Vegetarian	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]



Low-Carbohydrate vs Mediterranean	0	Some concerns	Some concerns	No concerns	Some concerns	No concerns	No concerns	Low	["Within-study bias", "Reporting bias", "Imprecision"]
Low-Carbohydrate vs Moderate-Carbohydrate	0	Some concerns	Some concerns	No concerns	No concerns	No concerns	No concerns	Low	["Within-study bias", "Reporting bias"]
Low-Carbohydrate vs Vegetarian	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
Low-GI/GL vs Mediterranean	0	Some concerns	High risk	No concerns	No concerns	No concerns	No concerns	Very low	["Within-study bias", "Reporting bias"]
Low-GI/GL vs Moderate-Carbohydrate	0	Some concerns	High risk	No concerns	No concerns	Some concerns	No concerns	Very low	["Within-study bias", "Reporting bias", "Heterogeneity"]
Low-GI/GL vs Vegetarian	0	Some concerns	High risk	No concerns	No concerns	Some concerns	No concerns	Very low	["Within-study bias", "Reporting bias", "Heterogeneity"]
Mediterranean vs Moderate-Carbohydrate	0	Some concerns	Some concerns	No concerns	No concerns	No concerns	No concerns	Low	["Within-study bias", "Reporting bias"]
Mediterranean vs Vegetarian	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low	["Within-study bias", "Reporting bias", "Imprecision"]
Moderate-Carbohydrate vs Vegetarian	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]

### 3. body weight

#### 3.1 Supplementary Figure S33: Risk of Bias Chart showing the contribution of low, moderate, or high RoB comparisons to each network estimate.



### 3.2 Supplementary Table S38: Evaluation of the Certainty of evidence Using CINEMA Framework

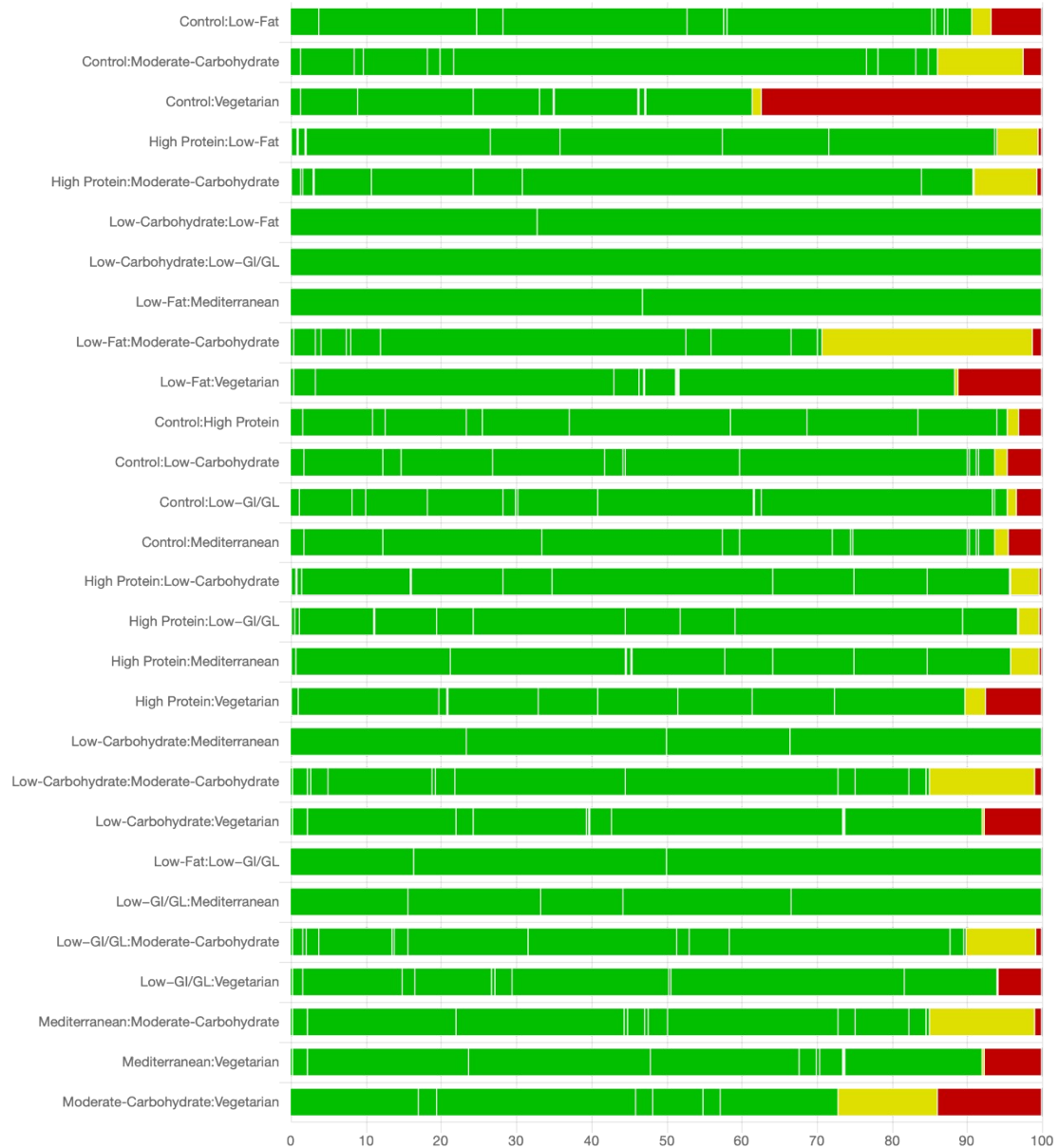
Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason(s) for downgrading
Mixed evidence									
Control:Low-Fat	4	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Control:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Control:Vegetarian	1	No concerns	High risk	No concerns	Some concerns	No concerns	No concerns	Very low	["Reporting bias","Imprecision"]
High Protein:Low-Fat	7	No concerns	Some concerns	No concerns	No concerns	Major concerns	No concerns	Very low	["Reporting bias","Heterogeneity"]
High Protein:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
Low-Carbohydrate:Low-Fat	6	No concerns	High risk	No concerns	No concerns	Some concerns	No concerns	Very low	["Reporting bias","Heterogeneity"]
Low-Carbohydrate:Low GI/GL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Low-Fat:Low GI/GL	2	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
Low-Fat:Mediterranean	2	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Fat:Moderate-Carbohydrate	5	No concerns	Some concerns	No concerns	No concerns	Major concerns	No concerns	Very low	["Reporting bias","Heterogeneity"]

Low-Fat:Vegetarian	2	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
Low GI/GL:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
<b>Indirect evidence</b>									
Control:High Protein	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Control:Low-Carbohydrate	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Control:Low GI/GL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Control:Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
High Protein:Low-Carbohydrate	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
High Protein:Low GI/GL	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
High Protein:Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
High Protein:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Carbohydrate:Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Carbohydrate:Moderate-	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]

Carbohydrate									
Low-Carbohydrate:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Low GI/GL:Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision", "Heterogeneity"]
Low GI/GL:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision", "Heterogeneity"]
Mediterranean:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision", "Heterogeneity"]
Mediterranean:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision", "Heterogeneity"]
Moderate-Carbohydrate:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision", "Heterogeneity"]

## 4. BMI

### 4.1 Supplementary Figure S34: Risk of Bias Chart showing the contribution of low, moderate, or high RoB comparisons to each network estimate.



## 4.2 Supplementary Table S39: Evaluation of the Certainty of evidence Using CINEMA Framework

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason(s) for downgrading
<b>Mixed evidence</b>									
Control:Low-Fat	5	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Control:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Control:Vegetarian	1	No concerns	High risk	No concerns	No concerns	Some concerns	No concerns	Very low	["Reporting bias","Heterogeneity"]
High Protein:Low-Fat	3	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
High Protein:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Low-Carbohydrate:Low-Fat	2	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Low-Carbohydrate:Low GI/GL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Low-Fat:Mediterranean	2	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Low-Fat:Moderate-Carbohydrate	2	No concerns	Some concerns	No concerns	No concerns	No concerns	No concerns	Moderate	["Reporting bias"]
Low-Fat:Vegetarian	2	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
<b>Indirect evidence</b>									
Control:High Protein	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Control:Low-Carbohydrate	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Control:Low GI/GL	0	No concerns	Low risk	No concerns	Some	Some concerns	No concerns	Low	["Imprecision","Hete

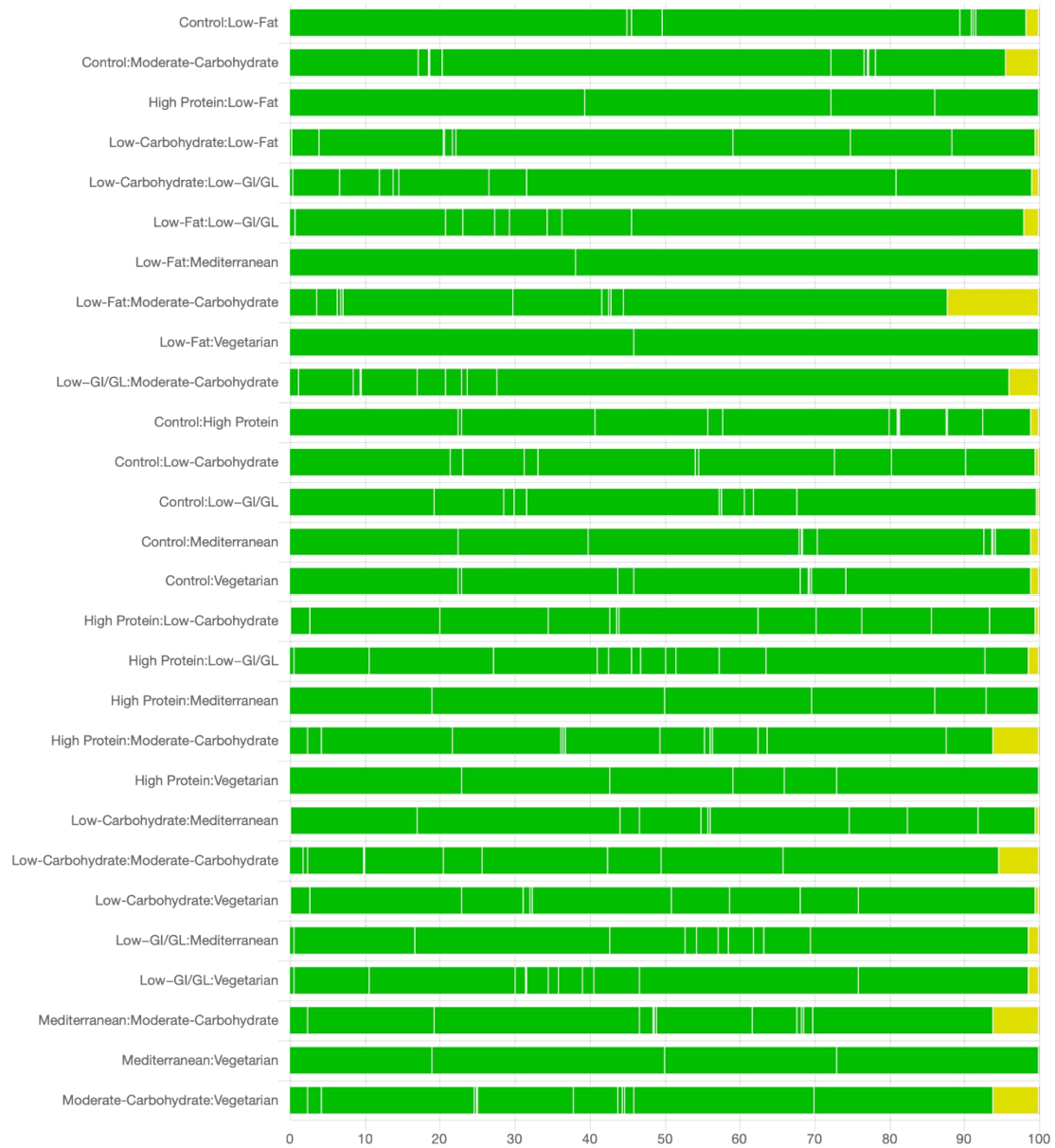
					concerns				ogeneity"]
Control:Mediterranean	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
High Protein:Low-Carbohydrate	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
High Protein:Low GI/GL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Imprecision"]
High Protein:Mediterranean	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
High Protein:Vegetarian	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Low-Carbohydrate:Mediterranean	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Low-Carbohydrate:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Low-Carbohydrate:Vegetarian	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Low-Fat:Low GI/GL	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low GI/GL:Mediterranean	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Imprecision"]
Low GI/GL:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Imprecision"]
Low GI/GL:Vegetarian	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Imprecision"]
Mediterranean:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
Mediterranean:Vegetarian	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No



Moderate- Carbohydrate:Vegetarian	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	No
--------------------------------------	---	-------------	----------	-------------	-------------	-------------	-------------	------	----

## 5. waist circumference

### 5.1 Supplementary Figure S35: Risk of Bias Chart showing the contribution of low, moderate, or high RoB comparisons to each network estimate.



## 5.2 Supplementary Table S40: Evaluation of the Certainty of evidence Using CINEMA Framework

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason(s) for downgrading
Mixed evidence									
Control:Low-Fat	3	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Control:Moderate-Carbohydrate	1	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
High Protein:Low-Fat	4	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
Low-Carbohydrate:Low-Fat	3	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Low-Carbohydrate:Low GI/GL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Low-Fat:Low GI/GL	2	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
Low-Fat:Mediterranean	2	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Fat:Moderate-Carbohydrate	4	No concerns	Some concerns	No concerns	No concerns	Major concerns	No concerns	Very low	["Reporting bias","Heterogeneity"]
Low-Fat:Vegetarian	2	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low GI/GL:Moderate-	1	No	Low risk	No concerns	Some	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]

Carbohydrate		concerns			concerns				neity"]
<b>Indirect evidence</b>									
Control:High Protein	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Control:Low-Carbohydrate	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Control:Low GI/GL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Control:Mediterranean	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate	["Heterogeneity"]
Control:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
High Protein:Low-Carbohydrate	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
High Protein:Low GI/GL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Imprecision"]
High Protein:Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
High Protein:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
High Protein:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Carbohydrate:Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]

Low-Carbohydrate:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low-Carbohydrate:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate	["Imprecision"]
Low GI/GL:Mediterranean	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Low GI/GL:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Mediterranean:Moderate-Carbohydrate	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Mediterranean:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]
Moderate-Carbohydrate:Vegetarian	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low	["Imprecision","Heterogeneity"]

- [1] Goldenberg J Z, Day A, Brinkworth G D, et al.Efficacy and safety of low and very low carbohydrate diets for type 2 diabetes remission: systematic review and meta-analysis of published and unpublished randomized trial data[J].Bmj,2021, 372: m4743.
- [2] Jing T, Zhang S, Bai M, et al.Effect of Dietary Approaches on Glycemic Control in Patients with Type 2 Diabetes: A Systematic Review with Network Meta-Analysis of Randomized Trials[J].Nutrients,2023, 15 (14).
- [3] Schwingshackl L, Hoffmann G.Long-term effects of low-fat diets either low or high in protein on cardiovascular and metabolic risk factors: a systematic review and meta-analysis[J].Nutrition Journal,2013, 12 (1): 48-48.
- [4] Chawla S, Tessarolo Silva F, Amaral Medeiros S, et al.The Effect of Low-Fat and Low-Carbohydrate Diets on Weight Loss and Lipid Levels: A Systematic Review and Meta-Analysis[J].Nutrients,2020, 12 (12).
- [5] Thomas D E, Elliott E J, Baur L.Low glycaemic index or low glycaemic load diets for overweight and obesity[J].
- [6] Schwingshackl L, Hoffmann G.Long-term effects of low glycemic index/load vs. high glycemic index/load diets on parameters of obesity and obesity-associated risks: a systematic review and meta-analysis[J].Nutr Metab Cardiovasc Dis,2013, 23 (8): 699-706.
- [7] Haider L M, Schwingshackl L, Hoffmann G, et al.The effect of vegetarian diets on iron status in adults: A systematic review and meta-analysis[J].Crit Rev Food Sci Nutr,2018, 58 (8): 1359-1374.
- [8] Van Den Brink A C, Brouwer-Brolsma E M, Berendsen A a M, et al.The Mediterranean, Dietary Approaches to Stop Hypertension (DASH), and Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) Diets Are Associated with Less Cognitive Decline and a Lower Risk of Alzheimer's Disease-A Review[J].Adv Nutr,2019, 10 (6): 1040-1065.
- [9] Papadaki A, Nolen-Doerr E, Mantzoros C S.The Effect of the Mediterranean Diet on Metabolic Health: A Systematic Review and Meta-Analysis of Controlled Trials in Adults[J].Nutrients,2020, 12 (11).
- [10] Schwingshackl L, Chaimani A, Hoffmann G, et al.A network meta-analysis on the comparative efficacy of different dietary approaches on glycaemic control in patients with type 2 diabetes mellitus[J].Eur J Epidemiol,2018, 33 (2): 157-170.
- [11] Pan X F, Wang L, Pan A.Epidemiology and determinants of obesity in China[J].Lancet Diabetes Endocrinol,2021, 9 (6): 373-392.
- [12] Palsey R B, Harvey P, Rice S, et al.Short-term results of an open trial of very low calorie diet or intensive conventional diet in type 2 diabetes[J].Practical diabetes international,1995, 12 (6): 263-267.
- [13] Shai I, Schwarzfuchs D, Henkin Y, et al.Weight loss with a low-carbohydrate, Mediterranean, or low-fat diet[J].N Engl J Med,2008, 359 (3): 229-41.
- [14] Foster G D, Wyatt H R, Hill J O, et al.Weight and metabolic outcomes after 2 years on a low-carbohydrate versus low-fat diet: a randomized trial[J].Annals of internal medicine,2010, 153 (3): 147-157.
- [15] Nielsen J V, Joensson E.Low-carbohydrate diet in type 2 diabetes. Stable improvement of bodyweight and glycemic control during 22 months follow-up[J].Nutrition and Metabolism,2006, 3.
- [16] Tay J, Luscombe-Marsh N D, Thompson C H, et al.A very low-carbohydrate, low-saturated fat diet for type 2 diabetes management: a randomized trial[J].Diabetes Care,2014, 37 (11): 2909-18.

- [17] Hussain T A, Mathew T C, Dashti A A, et al. Effect of low-calorie versus low-carbohydrate ketogenic diet in type 2 diabetes[J]. *Nutrition*, 2012, 28 (10): 1016-21.
- [18] Saslow L R, Kim S, Daubenmier J J, et al. A randomized pilot trial of a moderate carbohydrate diet compared to a very low carbohydrate diet in overweight or obese individuals with type 2 diabetes mellitus or prediabetes[J]. *PLoS One*, 2014, 9 (4): e91027.
- [19] Pacy P J, Dodson P M, Kubicki A J, et al. Effect of a high fibre, high carbohydrate dietary regimen on serum lipids and lipoproteins in type II hypertensive diabetic patients[J]. *Diabetes Res*, 1984, 1 (3): 159-63.
- [20] Milne R M, Mann J I, Chisholm A W, et al. Long-term comparison of three dietary prescriptions in the treatment of NIDDM[J]. *Diabetes care*, 1994, 17 (1): 74-80.
- [21] Ramal E, Champlin A, Bahjri K. Impact of a Plant-Based Diet and Support on Mitigating Type 2 Diabetes Mellitus in Latinos Living in Medically Underserved Areas[J]. *Am J Health Promot*, 2018, 32 (3): 753-762.
- [22] Wang L L, Wang Q, Hong Y, et al. The Effect of Low-Carbohydrate Diet on Glycemic Control in Patients with Type 2 Diabetes Mellitus[J]. *Nutrients*, 2018, 10 (6).
- [23] Franz M J, Monk A, Barry B, et al. Effectiveness of medical nutrition therapy provided by dietitians in the management of non-insulin-dependent diabetes mellitus: a randomized, controlled clinical trial[J]. *Journal of the American Dietetic Association*, 1995, 95 (9): 1009-1017.
- [24] Walker K Z, O'dea K, Johnson L, et al. Body fat distribution and non-insulin-dependent diabetes: comparison of a fiber-rich, high-carbohydrate, low-fat (23%) diet and a 35% fat diet high in monounsaturated fat[J]. *Am J Clin Nutr*, 1996, 63 (2): 254-60.
- [25] Estruch R, Martínez-González M A, Corella D, et al. Effect of a high-fat Mediterranean diet on bodyweight and waist circumference: a prespecified secondary outcomes analysis of the PREDIMED randomised controlled trial[J]. *Lancet Diabetes Endocrinol*, 2019, 7 (5): e6-e17.
- [26] Javier Basterra-Gortari F, Ruiz-Canela M, Martínez-González M A, et al. Effects of a Mediterranean eating plan on the need for glucose-lowering medications in participants with type 2 diabetes: A subgroup analysis of the PREDIMED trial[J]. *Diabetes Care*, 2019, 42 (8): 1390-1397.
- [27] Wolever T M, Mehling C, Chiasson J L, et al. Low glycaemic index diet and disposition index in type 2 diabetes (the Canadian trial of carbohydrates in diabetes): a randomised controlled trial[J]. *Diabetologia*, 2008, 51 (9): 1607-15.
- [28] Gale T J, Darby T, Paisey R, et al. Dietary change over two years of a low carbohydrate, compared with prescribed energy deficit intervention for weight loss in Type 2 diabetes[J]. *Diabetic Medicine*, 2009, 26: 115.
- [29] Marco-Benedí V, Pérez-Calahorra S, Bea A M, et al. High-protein energy-restricted diets induce greater improvement in glucose homeostasis but not in adipokines comparing to standard-protein diets in early-onset diabetic adults with overweight or obesity[J]. *Clin Nutr*, 2020, 39 (5): 1354-1363.
- [30] Evangelista L S, Jose M M, Sallam H, et al. High-protein vs. standard-protein diets in overweight and obese patients with heart failure and diabetes mellitus: findings of the Pro-HEART trial[J]. *ESC Heart Fail*, 2021, 8 (2): 1342-1348.
- [31] Tsaban G, Yaskolka Meir A, Rinott E, et al. The effect of green Mediterranean diet on cardiometabolic risk; A randomised controlled trial[J]. *Heart*, 2021, 107 (13): 1054-1061.

- [32] Coulston A M, Hollenbeck C B, Swislocki A L M, et al.Persistence of hypertriglyceridemic effect of low-fat high-carbohydrate diets in NIDDM patients[J].Diabetes Care,1989, 12 (2): 94-101.
- [33] Williamson D A, Anton S D, Han H, et al.Is adherence a multi-dimensional behavioral construct? Findings from the POUNDS LOST trial[J].Diabetes,2009, 58.
- [34] Nicholson A S, Sklar M, Barnard N D, et al.Toward improved management of NIDDM: A randomized, controlled, pilot intervention using a lowfat, vegetarian diet[J].Prev Med,1999, 29 (2): 87-91.
- [35] Tapsell L C, Gillen L J, Patch C S, et al.Including walnuts in a low-fat/modified-faf diet improves HDL cholesterol-to-total cholesterol ratios in patients with type 2 diabetes[J].Diabetes Care,2004, 27 (12): 2777-2783.
- [36] Barnard N D, Gloede L, Cohen J, et al.A low-fat vegan diet elicits greater macronutrient changes, but is comparable in adherence and acceptability, compared with a more conventional diabetes diet among individuals with type 2 diabetes[J].J Am Diet Assoc,2009, 109 (2): 263-72.
- [37] Wycherley T P, Thompson C H, Buckley J D, et al.Long-term effects of weight loss with a very-low carbohydrate, low saturated fat diet on flow mediated dilatation in patients with type 2 diabetes: A randomised controlled trial[J].Atherosclerosis,2016, 252: 28-31.
- [38] Gepner Y, Canfi A, Schwarzfuchs D, et al.Effect of changes in the intake of specific food groups on weight loss; a two year dietary intervention trial[J].Diabetologia,2010, 53: S375.
- [39] Barnard N D, Cohen J, Jenkins D J, et al.A low-fat vegan diet improves glycemic control and cardiovascular risk factors in a randomized clinical trial in individuals with type 2 diabetes[J].Diabetes Care,2006, 29 (8): 1777-83.
- [40] Wing R R, Blair E H, Bononi P, et al.Caloric restriction per se is a significant factor in improvements in glycemic control and insulin sensitivity during weight loss in obese NIDDM patients[J].Diabetes Care,1994, 17 (1): 30-6.
- [41] Mengham L H, Morris B F, Palmer C R, et al.Is intensive dietetic intervention effective for overweight patients with diabetes mellitus? A randomised controlled study in a general practice[J].Practical diabetes international,1999, 16 (1): 5-8.
- [42] Sato J, Kanazawa A, Makita S, et al.A randomized controlled trial of 130 g/day low-carbohydrate diet in type 2 diabetes with poor glycemic control[J].Clinical nutrition (Edinburgh, Scotland),2017, 36 (4): 992-1000.
- [43] Gryka A, Rolland C, Broom I.The effects of two low-carbohydrate, high-protein diets on body composition of obese patients with type 2 diabetes[J].Obesity Reviews,2010, 11: 246.
- [44] Jönsson T, Granfeldt Y, Lindeberg S, et al.Subjective satiety and other experiences of a Paleolithic diet compared to a diabetes diet in patients with type 2 diabetes[J].Nutrition Journal,2013, 12 (1).
- [45] Gerhard G T, Ahmann A, Meeuws K, et al.Effects of a low-fat diet compared with those of a high-monounsaturated fat diet on body weight, plasma lipids and lipoproteins, and glycemic control in type 2 diabetes[J].Am J Clin Nutr,2004, 80 (3): 668-73.
- [46] Barnard N D, Cohen J, Jenkins D J, et al.A low-fat vegan diet and a conventional diabetes diet in the treatment of type 2 diabetes: a randomized, controlled, 74-wk clinical trial[J].Am J Clin Nutr,2009, 89 (5): 1588s-1596s.



- [47] Esposito K, Maiorino M I, Petrizzo M, et al. The effects of a Mediterranean diet on the need for diabetes drugs and remission of newly diagnosed type 2 diabetes: follow-up of a randomized trial[J]. *Diabetes Care*, 2014, 37 (7): 1824-30.
- [48] Rizkalla S W, Taghrid L, Laromiguiere M, et al. Improved plasma glucose control, whole-body glucose utilization, and lipid profile on a low-glycemic index diet in type 2 diabetic men: a randomized controlled trial[J]. *Diabetes Care*, 2004, 27 (8): 1866-72.
- [49] Simonen P, Gylling H, Howard A N, et al. Introducing a new component of the metabolic syndrome: low cholesterol absorption[J]. *Am J Clin Nutr*, 2000, 72 (1): 82-8.
- [50] Snel M, Jonker J T, Hammer S, et al. Long-term beneficial effect of a 16-week very low calorie diet on pericardial fat in obese type 2 diabetes mellitus patients[J]. *Obesity (Silver Spring)*, 2012, 20 (8): 1572-6.
- [51] Rodríguez-Villar C, Pérez-Heras A, Mercadé I, et al. Comparison of a high-carbohydrate and a high-monounsaturated fat, olive oil-rich diet on the susceptibility of LDL to oxidative modification in subjects with Type 2 diabetes mellitus[J]. *Diabetic medicine*, 2004, 21 (2): 142-149.
- [52] Sargrad K R, Homko C, Mozzoli M, et al. Effect of high protein vs high carbohydrate intake on insulin sensitivity, body weight, hemoglobin A1c, and blood pressure in patients with type 2 diabetes mellitus[J]. *J Am Diet Assoc*, 2005, 105 (4): 573-80.
- [53] Jönsson T, Granfeldt Y, Åhrén B, et al. Beneficial effects of a Paleolithic diet on cardiovascular risk factors in type 2 diabetes: a randomized cross-over pilot study[J]. *Cardiovasc Diabetol*, 2009, 8: 35.
- [54] Guldbrand H, Dizdar B, Bunjaku B, et al. In type 2 diabetes, randomisation to advice to follow a low-carbohydrate diet transiently improves glycaemic control compared with advice to follow a low-fat diet producing a similar weight loss[J]. *Diabetologia*, 2012, 55 (8): 2118-27.
- [55] Luger M, Holstein B, Schindler K, et al. Feasibility and efficacy of an isocaloric high-protein vs. standard diet on insulin requirement, body weight and metabolic parameters in patients with type 2 diabetes on insulin therapy[J]. *Exp Clin Endocrinol Diabetes*, 2013, 121 (5): 286-94.
- [56] Pijls L T, De Vries H, Van Eijk J T, et al. Adherence to protein restriction in patients with type 2 diabetes mellitus: a randomized trial[J]. *Eur J Clin Nutr*, 2000, 54 (4): 347-52.
- [57] Shah M, Adams-Huet B, Bantle J P, et al. Effect of a high-carbohydrate versus a high--cis-monounsaturated fat diet on blood pressure in patients with type 2 diabetes[J]. *Diabetes Care*, 2005, 28 (11): 2607-12.
- [58] Guldbrand H, Lindström T, Dizdar B, et al. Randomization to a low-carbohydrate diet advice improves health related quality of life compared with a low-fat diet at similar weight-loss in Type 2 diabetes mellitus[J]. *Diabetes Res Clin Pract*, 2014, 106 (2): 221-7.
- [59] Visek J, Lacigova S, Cechurova D, et al. Comparison of the impact of a low-glycemic index diet and a commonly used diabetic diet a randomized crossover study[J]. *Clinical nutrition, supplement*, 2011, 6 (1): 117.
- [60] Lasa A, Miranda J, Bulló M, et al. Comparative effect of two Mediterranean diets versus a low-fat diet on glycaemic control in individuals with type 2 diabetes[J]. *Eur J Clin Nutr*, 2014, 68 (7): 767-72.
- [61] De Natale C, Annuzzi G, Bozzetto L, et al. Effects of a plant-based high-carbohydrate/high-fiber diet versus high-monounsaturated fat/low-carbohydrate diet on postprandial lipids in type 2 diabetic patients[J]. *Diabetes Care*, 2009, 32 (12): 2168-73.

- [62] Fontes-Villalba M, Lindeberg S, Granfeldt Y, et al. Palaeolithic diet decreases fasting plasma leptin concentrations more than a diabetes diet in patients with type 2 diabetes: a randomised cross-over trial[J]. *Cardiovascular diabetology*, 2016, 15 (1) (no pagination).
- [63] Krebs J D, Bell D, Hall R, et al. Improvements in glucose metabolism and insulin sensitivity with a low-carbohydrate diet in obese patients with type 2 diabetes[J]. *J Am Coll Nutr*, 2013, 32 (1): 11-7.
- [64] Sato J, Kanazawa A, Hatae C, et al. One year follow-up after a randomized controlled trial of a 130 g/day low-carbohydrate diet in patients with type 2 diabetes mellitus and poor glycemic control[J]. *PloS one*, 2017, 12 (12): e0188892.
- [65] Tay J, De Bock M I, Mayer-Davis E J. Low-carbohydrate diets in type 2 diabetes[J]. *Lancet Diabetes Endocrinol*, 2019, 7 (5): 331-333.
- [66] Chen C Y, Huang W S, Chen H C, et al. Effect of a 90 g/day low-carbohydrate diet on glycaemic control, small, dense low-density lipoprotein and carotid intima-media thickness in type 2 diabetic patients: an 18-month randomised controlled trial[J]. *PloS one*, 2020, 15 (10): e0240158.
- [67] Tay J, Thompson C H, Luscombe-Marsh N D, et al. Effects of an energy-restricted low-carbohydrate, high unsaturated fat/low saturated fat diet versus a high-carbohydrate, low-fat diet in type 2 diabetes: A 2-year randomized clinical trial[J]. *Diabetes Obes Metab*, 2018, 20 (4): 858-871.
- [68] Watson N A, Dyer K A, Buckley J D, et al. Comparison of two low-fat diets, differing in protein and carbohydrate, on psychological wellbeing in adults with obesity and type 2 diabetes: a randomised clinical trial[J]. *Nutr J*, 2018, 17 (1): 62.
- [69] Pavithran N, Kumar H, Menon A S, et al. The Effect of a Low GI Diet on Truncal Fat Mass and Glycated Hemoglobin in South Indians with Type 2 Diabetes-A Single Centre Randomized Prospective Study[J]. *Nutrients*, 2020, 12 (1).
- [70] Long-Term Effects of a Very Low Carbohydrate Compared With a High Carbohydrate Diet on Renal Function in Individuals With Type 2 Diabetes: a Randomized Trial[J]. *Medicine*. 94 (47) (pp e2181), 2015. Date of publication: 01 nov 2015., 2015.
- [71] Salehi M, Kazemi A, Zadeh J H. The effects of 6 isocaloric meals pattern on blood lipid profile, glucose, hemoglobin A1c, insulin and malondialdehyde in type 2 diabetic patients: a randomized clinical trial[J]. *Iranian journal of medical sciences*, 2014, 39 (5): 433-439.
- [72] Deledda A, Palmas V, Heidrich V, et al. Dynamics of Gut Microbiota and Clinical Variables after Ketogenic and Mediterranean Diets in Drug-Naïve Patients with Type 2 Diabetes Mellitus and Obesity[J]. *Metabolites*, 2022, 12 (11).
- [73] Gram-Kampmann E M, Hansen C D, Hugger M B, et al. Effects of a six-month low-carbohydrate diet in patients with type 2 diabetes on glycaemic control, body composition and cardiovascular risk factors[J]. *Diabetologia*, 2020, 63 (SUPPL 1): S297.
- [74] Pavithran N, Kumar H, Menon A S, et al. South Indian Cuisine with Low Glycemic Index Ingredients Reduces Cardiovascular Risk Factors in Subjects with Type 2 Diabetes[J]. *Int J Environ Res Public Health*, 2020, 17 (17).
- [75] Papakonstantinou E, Triantafyllidou D, Panagiotakos D B, et al. A high-protein low-fat diet is more effective in improving blood pressure and triglycerides in calorie-restricted obese individuals with newly diagnosed type 2 diabetes[J]. *Eur J Clin Nutr*, 2010, 64 (6): 595-602.

- [76] Perna S, Alalwan T A, Gozzer C, et al. Effectiveness of a hypocaloric and low-carbohydrate diet on visceral adipose tissue and glycemic control in overweight and obese patients with type 2 diabetes[J]. *Bahrain medical bulletin*, 2019, 41 (3): 159-164.
- [77] Azadbakht L, Fard N R P, Karimi M, et al. Effects of the Dietary Approaches to Stop Hypertension (DASH) eating plan on cardiovascular risks among type 2 diabetic patients: A randomized crossover clinical trial[J]. *Diabetes Care*, 2011, 34 (1): 55-57.
- [78] Ren M, Zhang H, Qi J, et al. An Almond-Based Low Carbohydrate Diet Improves Depression and Glycometabolism in Patients with Type 2 Diabetes through Modulating Gut Microbiota and GLP-1: A Randomized Controlled Trial[J]. *Nutrients*, 2020, 12 (10).
- [79] Argiana V, Kanellos P, Makrilakis K, et al. The effect of consumption of low-glycemic-index and low-glycemic-load desserts on anthropometric parameters and inflammatory markers in patients with type 2 diabetes mellitus[J]. *Eur J Nutr*, 2015, 54 (7): 1173-80.
- [80] Li S, Ding L, Xiao X. Comparing the Efficacy and Safety of Low-Carbohydrate Diets with Low-Fat Diets for Type 2 Diabetes Mellitus Patients: A Systematic Review and Meta-Analysis of Randomized Clinical Trials[J]. *Int J Endocrinol*, 2021, 2021: 8521756.
- [81] Alzahrani A H, Skytte M J, Samkani A, et al. Body weight and metabolic risk factors in patients with type 2 diabetes on a self-selected high-protein low-carbohydrate diet[J]. *Eur J Nutr*, 2021, 60 (8): 4473-4482.
- [82] Maiorino M I, Petrizzo M, Bellastella G, et al. A very low-carbohydrate, low- saturated fat diet for type 2 diabetes management: a randomized trial. *Diabetes care* 2014;37: 2909-2918[J]. *Diabetes care*. 38 (4) (pp e64), 2015. Date of publication: april 2015., 2015.
- [83] Kobayashi M, Miura T, Miura K, et al. Effect of a Moderate Carbohydrate-Restricted Diet on DPP-4 Inhibitor Action among Individuals with Type 2 Diabetes Mellitus: A 6-Month Intervention Study[J]. *J Nutr Sci Vitaminol (Tokyo)*, 2020, 66 (2): 114-118.
- [84] Nielsen J V, Jönsson E, Nilsson A K. Lasting improvement of hyperglycaemia and bodyweight: low-carbohydrate diet in type 2 diabetes. A brief report[J]. *Ups J Med Sci*, 2005, 110 (2): 179-83.
- [85] Alzahrani A H, Skytte M J, Samkani A, et al. Effects of a Self-Prepared Carbohydrate-Reduced High-Protein Diet on Cardiovascular Disease Risk Markers in Patients with Type 2 Diabetes[J]. *Nutrients*, 2021, 13 (5).
- [86] Han Y, Cheng B, Guo Y, et al. A Low-Carbohydrate Diet Realizes Medication Withdrawal: A Possible Opportunity for Effective Glycemic Control[J]. *Front Endocrinol (Lausanne)*, 2021, 12: 779636.
- [87] Skytte M J, Samkani A, Petersen A D, et al. A carbohydrate-reduced high-protein diet improves HbA1c and liver fat content in weight stable participants with type 2 diabetes: a randomised controlled trial[J]. *Diabetologia*, 2019, 62 (11): 2066-2078.
- [88] Tay J, Thompson C H, Luscombe-Marsh N D, et al. Nutritional adequacy of very low- and high-carbohydrate, low saturated fat diets in adults with type 2 diabetes: A secondary analysis of a 2-year randomised controlled trial[J]. *Diabetes Res Clin Pract*, 2020, 170: 108501.
- [89] Kakoschke N, Zajac I T, Tay J, et al. Effects of very low-carbohydrate vs. high-carbohydrate weight loss diets on psychological health in adults with obesity and type 2 diabetes: a 2-year randomized controlled trial[J]. *Eur J Nutr*, 2021, 60 (8): 4251-4262.

- [90] Vitale M, Masulli M, Rivellesse A A, et al. Influence of dietary fat and carbohydrates proportions on plasma lipids, glucose control and low-grade inflammation in patients with type 2 diabetes-The TOSCA.IT Study[J]. European journal of nutrition, 2016, 55 (4): 1645-1651.
- [91] Chen C Y, Huang W S, Ho M H, et al. The potential prolonged effect at one-year follow-up after 18-month randomized controlled trial of a 90 g/day low-carbohydrate diet in patients with type 2 diabetes[J]. Nutr Diabetes, 2022, 12 (1): 17.
- [92] Gram-Kampmann E M, Hansen C D, Hugger M B, et al. Effects of a 6-month, low-carbohydrate diet on glycaemic control, body composition, and cardiovascular risk factors in patients with type 2 diabetes: An open-label randomized controlled trial[J]. Diabetes Obes Metab, 2022, 24 (4): 693-703.
- [93] Omura Y, Murakami K, Matoba K, et al. Effects of individualized dietary advice compared with conventional dietary advice for adults with type 2 diabetes: a randomized controlled trial[J]. Nutrition, metabolism, and cardiovascular diseases : NMCD, 2022, 32 (4): 1035-1044.
- [94] Skytte M J, Samkani A, Astrup A, et al. Effects of carbohydrate restriction on postprandial glucose metabolism, b-cell function, gut hormone secretion, and satiety in patients with Type 2 diabetes[J]. American Journal of Physiology - Endocrinology and Metabolism, 2021, 320 (1): E7-E18.