Protocol for the systematic literature search about the effect of Mediterranean diet in type 2 diabetes.

- Broad question 1: what is the effect of Mediterranean diet, as compared with other diets, on glycemic control in type 2 diabetes?
- Broad question 2: what is the effect of Mediterranean diet, as compared with other diets, on cardiovascular risk factors in type 2 diabetes? The answer to these specific points was sought by evaluating randomized controlled trials (RCTs) or meta-analyses of RCTs in people with type 2 diabetes randomly assigned to Mediterranean diet vs other diets.
- Specific question 1: what is the effect of Mediterranean diet, as compared with other diets, in prediabetic states? The answer to this specific question was sought by comparing the effects of Mediterranean diet and other diets in people with metabolic syndrome, impaired glucose tolerance or impaired fasting glucose, where sufficient studies existed.
- Specific question 2: what is the effect of Mediterranean diet, as compared with other diets, in prevention of type 2 diabetes? The answer to this specific question was sought by comparing Mediterranean diet with other diets in people without diabetes at baseline on the future incidence of type 2 diabetes

The review followed the outlines of PICO (study characteristics):

1. Population: the population to be included in the review consisted of subjects free of type 2 diabetes at baseline.
2. Exposure: Mediterranean diet and other dietary patterns.
3. Comparisons: subjects with type 2 diabetes.
4. Outcomes: glycemic control and cardiovascular risk factors in type 2 diabetes.

Published articles were considered eligible for this review: RCTs and meta-analyses of RCTs

Full search string for PubMed

1. Mediterranean diet and Type 2 diabetes: items n° 203
2. Mediterranean diet and type 2 diabetes prevention: items n° 103
3. Mediterranean diet and metabolic syndrome: items n° 218
4. Mediterranean diet and obesity: items n° 499
5. Mediterranean diet and cardiovascular risk factors: items n° 520
6. Mediterranean diet and prediabetes: items n° 10
7. Mediterranean diet and impaired glucose tolerance: items n° 16
8. Mediterranean diet and impaired fasting glucose: items n° 9
9. Mediterranean diet and type 2 diabetes and clinical trials: items n° 69
10. Mediterranean diet and type 2 diabetes and cardiovascular risk factors: items n° 177

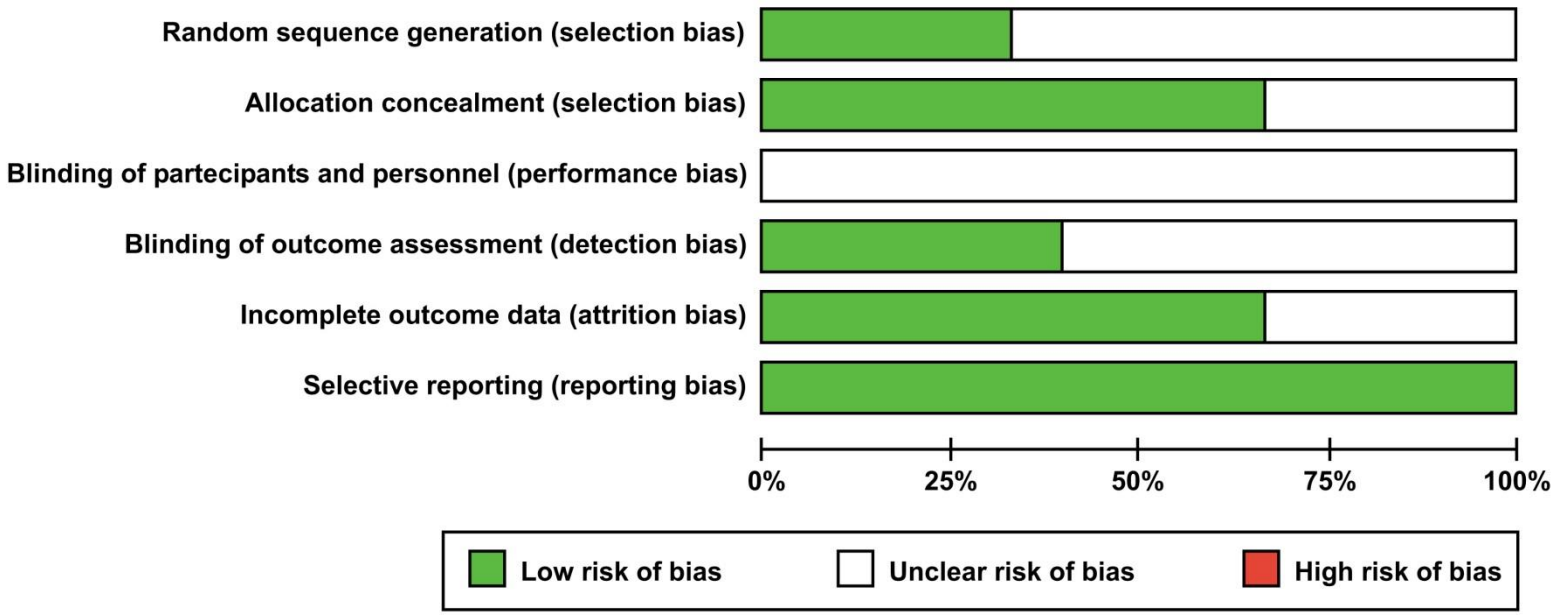
Supplemenatal Table 1. GRADE evidence profiles for meta-analyses of Mediterranean diet

		Quality assessment					Number of patients		Effect		Quality
Meta-analysis	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	Med diet	Control diet	Relative	Absolute	
Esposito, 2011[16]	RCTs	No serious risk	No serious inconsistency	No serious indirectness	No serious imprecision	None	1848	1588		Body weight	MODERATE
Nordmand, 2011[17]	RCTs	No serious risk	No serious Inconsistency	No serious ndirectness	No serious imprecision	None	Total number 2650			Body weight cholesterol	MODERATE
Alaya, 2013[18]	RCTs	No serious risk	No serious Inconsistency	No serious indirectness	No serious imprecision	None	308	280		HbA1c body weight HDL-C	MODERATE
Rees, 2013[19]	RCTs	No serious risk	No serious Inconsistency	No serious indirectness	No serious imprecision	None	238	198		Cholesterol	HIGH
Huo, 2014[20]	RCTs	No serious risk	No serious Inconsistency	No serious indirectness	No serious imprecision	None	Total number 1178			HbA1c body weight cholesterol HDL-C	HIGH
Carter, 2014[21]	RCTs	No serious risk	No serious Inconsistency	No serious indirectness	No serious imprecision	None	302	186		HbA1c	LOW/ MODERATE
Koleverou, 2014[22]	Cohort	No serious risk	No serious Inconsistency	No serious indirectness	No serious imprecision	None	NR	NR	Relative risk	Incidence of diabetes	MODERATE
Schwingshackl, 2014[23]	Cohort	No serious risk	No serious Inconsistency	No serious indirectness	No serious imprecision	None	Total number 122810		Relative risk	Incidence of diabetes	MODERATE

Supplemental Table 2. Main characteristics of the Mediterranean diet

Moderate/high in total fat (30-40% of total calories), relatively low in saturated fat (9%–10% of total calories), high in fiber (27– 37 g/d), and high in monounsaturated and polyunsaturated fatty acids, with an emphasis on omega-3 fatty acids.
It emphasizes fresh fruits, root and green vegetables, grains (mostly whole), legumes, nuts, seeds, and olive oil in place of butter or other animal-based fats. Lower-fat or fat-free dairy products are consumed daily; fish, poultry, and eggs are consumed in low to moderate amounts; and red meat and sweets are limited. Wine is also consumed in low to moderate amounts in non-Islamic countries.

Supplemental Figure 1.



Cochrane risk of bias (graph) for the five RCTs (references 24-28 of the main text)