Supplementary File 2 Assessment of risk of bias

Bias Authors' judgment	Support for judgment
Xiang X, 2019	
Random sequence generation	"采用统计软件随机分为干预组和对照组"，but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	"由于米片和燕麦片在外形差异较大，本研究无法针对执行试验的研究人员和参与试验的研究对象采取盲法措施。"
Blinding of outcome assessment	"各项指标的检测人员采取盲法。"
Incomplete outcome data	"最终完成全部试验的共计 187 人，11 人失访（对照组 6 人，干预组 5 人），失访率为 5%，此外有 12 人被剔除，其中 8 人没有按照试验要求服用样品（对照组 5 人，干预组 3 人），4 人退组(其中对照组 1 人，干预组 3 人。"
Selective reporting	Outcomes matched those described in the clinical trial registry.
Other bias	No other sources of bias were identified.
Uusitupa MI, 1992	
Random sequence generation	"the subjects were randomly allocated into oat bran or wheat bran groups", but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	"the study was carried out with a double-blind study design."
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	"Forty-six subjects with known elevated serum TC (5.5-8.5 mmol/1) were originally recruited for the study……36 subjects finished the study."
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Biörklund M, 2005	
Random sequence generation	"they were randomly divided over five groups, stratified for gender and centre."
Allocation concealment	No mention was in the paper and author was not

	contacted.
Blinding of participants and personnel	“a single blind”, participants were blinded with the use of placebo.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“In total, 100 subjects were included in the study, of which 89(45 females and 44 males) completed the 8-week protocol.”
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Lepre F, 1992	
Random sequence generation	“The study was a prospective, randomised, placebo controlled crossover study made up of three eight-weekstudy periods”, but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	No mention was in the paper and author was not contacted.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“Thirty-seven mildly hyperlipidaemic subjects (16 men, 21 women) were recruited” and “Thirty subjects completed the study.”
Selective reporting	Protocol not available.
Other bias	Thirty subjects completed the study. Four subjects dropped out during the diet-only period and three during the muffin periods of the study. Of these, three subjects were unable to comply with the dietary protocol.
Gulati S, 2017	
Random sequence generation	“ Enrolled subjects were randomized to one of the two groups”, but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	No mention was in the paper and author was not contacted.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“Sixty nine of eighty subjects (69/80) completed the study.”

Selective reporting	Outcomes matched those described in the clinical trial registry.
Other bias	No other sources of bias were identified.
Törrönen R, 1992	
Random sequence generation	"They were randomly assigned into control and oat groups", but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	"doubleblind trial".
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	"A group of 30 adult male volunteers with serum total cholesterol concentration above 5.5mmol/l was recruited" and "Two subjects from the oat group discontinued the trial at an early stage."
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Van Horn L, 1991	
Random sequence generation	"Individuals were randomized to one of two groups, stratified by sex and pre-screen cholesterol level, above or below 6.34 mmol/L, prior to baseline visit."
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	No mention was in the paper and author was not contacted.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	"In all, 80 individuals completed all data collection visits; 14 were dropped from the Intervention Group and 17 from the Control Group."
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Gerhardt AL, 1998	
Random sequence generation	"Fifty-two subjects were enrolled and randomly assigned to groups", but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	"double blind".

Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“Of the 52 subjects entered into the study, the data of 23 males and 21 females were used in the final analysis”.
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Lovegrove JA, 2000	
Random sequence generation	“The volunteers were assigned to either the OBC group or the wheat-bran group on the basis of stratified randomization. ”
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	“ double-blind”.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“Seventy subjects commenced the study and 62 successfully completed the 12-wk protocol.”
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Zhang J, 2012	
Random sequence generation	“182 subjects (109 females, 73 males) wereselected to participate and randomized to either the oat group or the control group”, but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	“Due to the nature of the food products serving as control (wheat noodles) and test (oatmeal) product, it was not possible to blind the subjects or the researchers.”
Blinding of outcome assessment	“the statistician analyzing the data was blinded to the treatment groups”.
Incomplete outcome data	“182 subjects (109 females, 73 males) wereselected to participate and randomized to either the oat group or the control group” and “A total of 85 subjects in the oat group and 81 subjects in the control group were included in the final data analysis”.
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.

Davidson MH, 1991	
Random sequence generation	“One hundred fifty-six patients with LDL-C levels above 4.14 mmol/L (160 mg/dL) or between 3.37 and 4.14mmol/L (130 and 160 mg/dL) with multiple risk factors were stratified according to baseline LDL-C levels and randomized in a parallel fashion into seven equal groups”.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	“single-blind”.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“Of the 156 randomized patients, 148 completed the 12-week study”.
Selective reporting	Protocol not available.
Other bias	The final analysis was performed on a "per protocol" basis.
Maki KC, 2010	
Random sequence generation	“participants were randomly assigned to consume either two portions/day (3 c/day) of whole-grain RTE oat cereal (providing 3 g/day b-glucan) or low-fiber breakfast/snack foods (eg, RTE corn cereals, white toast, plain bagels and English muffins, pretzels, soda crackers, or rice cakes) with a similar energy and macronutrient content (control group)”, but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	Blinding was impossible cause the interventions were visibly different.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“204 were randomized to treatment (whole-grain RTE oat cereal n101, control n103). One hundred seventythree participants (whole-grain RTE oat cereal n86, control n87) were included in the MITT population.”
Selective reporting	Protocol not available.
Other bias	The final analysis was performed on a "per protocol" basis.
Momenizadeh A, 2014	

Random sequence generation	“subjects were randomized to consume one of these diets”, but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	No mention was in the paper and author was not contacted.
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“only 64 were found eligible after base test……four of these subjects withdrew during the course of study.”
Selective reporting	Outcomes matched those described in the clinical trial registry.
Other bias	No other sources of bias were identified.
Queenan KM, 2007	
Random sequence generation	“Subjects were randomly assigned to either placebo or treatment, stratifiedby age and sex.”
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	“The study was a randomized, double-blind parallel group design.”
Blinding of outcome assessment	No mention was in the paper and author was not contacted.
Incomplete outcome data	“A total of 90 patients were enrolled with 45 patients per treatment arm…… Fifteen subjects (n = 10 treatment, n = 5 placebo) were excluded from final analysis because their baseline cholesterol value was below 200 mg/dl despite a screening value above 200 mg/dl.”
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Jing L, 2013	
Random sequence generation	“符合条件的受试者……被随机分配到以下4个组”，but no further information was provided.
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	No information about blinding of participants and personnel.
Blinding of outcome assessment	No information about blinding of outcome assessment.

Incomplete outcome data	“共有 201 人通过筛选参与本研究，其中有 1 人家庭变故退出，1 人工作调配退出，另 3 人不能按要求完成试验而退出研究，最终有 196 人纳入分析。”
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Jiang X,1994	
Random sequence generation	“按机械随机方法分为燕麦组、对照组。按选入的顺序前三名为燕麦组、第四名为对照组，接着三名又为燕麦组、第八名又为对照组。余此类推 。”
Allocation concealment	No mention was in the paper and author was not contacted.
Blinding of participants and personnel	No information about blinding of participants and personnel.
Blinding of outcome assessment	No information about blinding of outcome assessment.
Incomplete outcome data	The study reported each lipid separately, and there was a risk of missing outcome data.
Selective reporting	Protocol not available.
Other bias	No other sources of bias were identified.
Rioux-Labrecque V, 2023	
Random sequence generation	“264 subjects (66 subjects per treatment group) were to be randomly assigned. The unblinded statistician generated a randomization algorithm for the Interactive Web Response System provider using blocks of size 4 and stratified by study center”.
Allocation concealment	“All site staff and study subjects remained blinded until study completion and database closure”.
Blinding of participants and personnel	“double-blind”、”All site staff and study subjects remained blinded until study completion and database closure”.
Blinding of outcome assessment	No information about blinding of outcome assessment.
Incomplete outcome data	A total of 263 patients were enrolled, and all of them were included in the ITT analysis.
Selective reporting	Outcomes matched those described in the clinical trial registry.
Other bias	No other sources of bias were identified.