

1 **Supplemental Material**

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4 **Fasting triglycerides are positively associated with cardiovascular mortality risk in**
5 **people with diabetes**

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7 **Short title:** Triglycerides and CVD mortality

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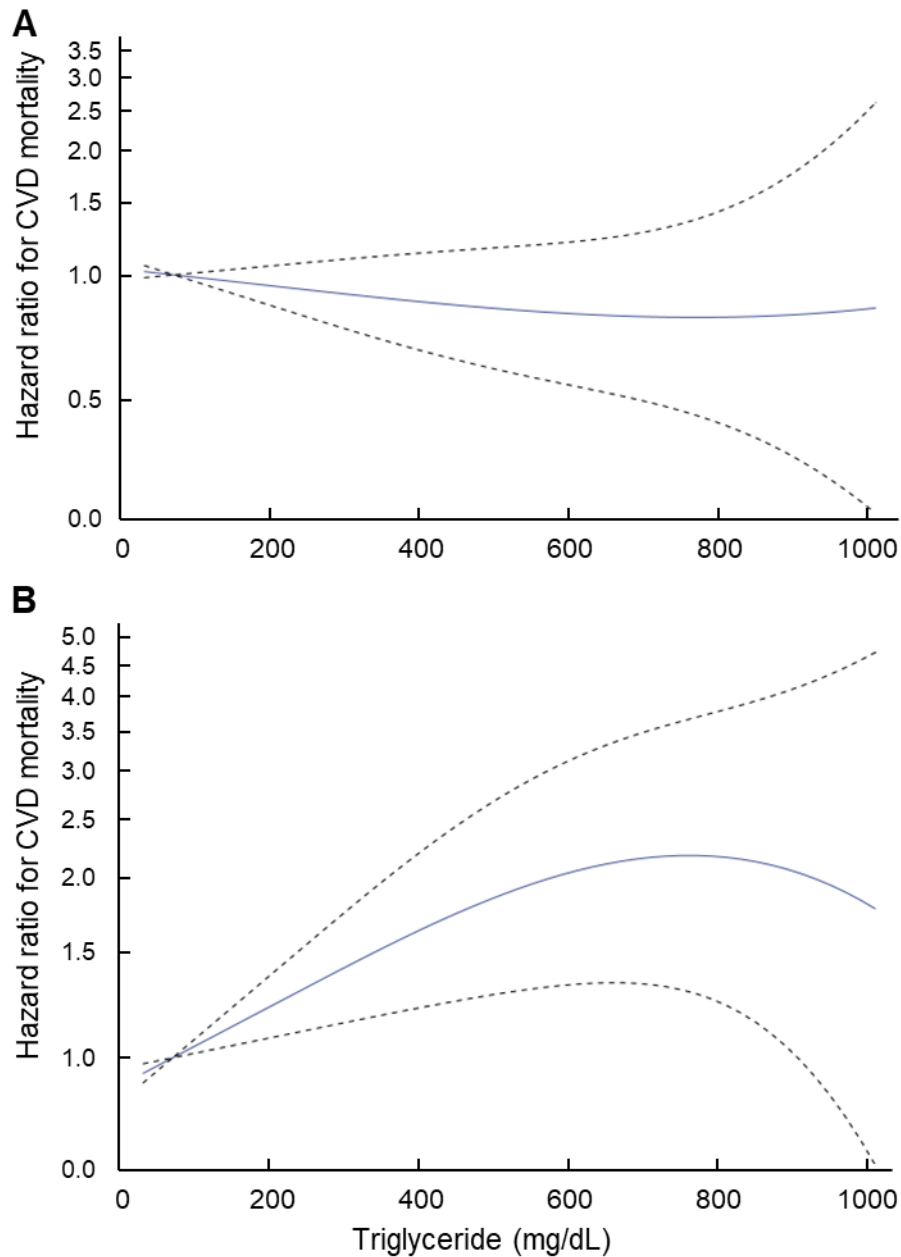
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29 **Supplemental Figure 1.** Adjusted restricted cubic spline plots of triglycerides for CVD
 30 mortality risks. **A**, Participants without diabetes. **B**, Participants with diabetes ($P=0.011$, for
 31 the non-linearity test). The analysis was adjusted for age, sex, ethnicity, obesity, poverty-
 32 income ratio, education, physical activity, alcohol consumption, smoking status, survey period,
 33 hypercholesterolemia, hypertension, family history of diabetes, duration of diabetes, and
 34 diabetes medications. CVD, cardiovascular disease.

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37 **Supplemental Table 1.** Recent 13 randomized controlled trials (RCTs) since 2010 on triglyceride-lowering therapies with cardiovascular outcomes as primary
 38 endpoints

Ref	Trial names	Publication year	Patient population	Intervention	Primary endpoint	Was primary endpoint achieved ?
<i>Omega-3 trials</i>						
1	Omega	2010	3,851 patients with recent MI (3 to 14 days)	EPA + DHA vs. placebo	sudden cardiac death	No
2	Alpha Omega	2010	4,837 patients with MI	EPA +DHA, or alpha-linolenic acid vs. placebo	fatal and nonfatal CVD events or cardiac interventions	No
3	SU.FOL.OM3	2010	2,501 patients with MI, unstable angina, or ischaemic stroke	EPA + DHA vs. placebo	nonfatal MI, stroke, or CVD death	No
4	ORIGIN	2012	12,536 patients with dysglycemia and high CVD risk	EPA + DHA vs. placebo	CVD death	No
5	Risk and Prevention	2013	12,513 patients with multiple CVD risk factors	EPA + DHA vs. placebo	nonfatal MI or nonfatal stroke	No
6	ASCEND	2018	15,480 patients with diabetes but without atherosclerotic CVD	EPA + DHA vs. placebo	nonfatal MI, stroke, transient ischemic attack, or vascular death, excluding confirmed intracranial hemorrhage	No
7	VITAL	2019	25,871 participants from a general population	EPA + DHA vs. placebo	major CVD events (MI, stroke, or CVD death), or invasive cancer	No
8	REDUCE-IT	2019	8,179 patients with hypertriglyceridemia (fasting triglyceride 135 to 499 mg/dL) Diabetes: 58.5%	icosapent ethyl vs. placebo	CVD death, nonfatal MI, nonfatal stroke, coronary revascularization, or unstable angina	Yes
9	STRENGTH	2020	13,078 patients with high CVD risk	EPA + DHA vs. placebo	CVD death, MI, stroke, coronary	No

10	OMEMI	2021	1,027 elderly patients with recent MI (2-8 weeks)	EPA + DHA vs. placebo	revascularization, or unstable angina requiring hospitalization nonfatal MI, unscheduled revascularization, stroke, all-cause death, or heart failure hospitalization after 2 years	No
<i>Niacin trials</i>						
11	AIM-HIGH	2011	3,414 patients with prior CVD	niacin vs. placebo	CHD death, nonfatal MI, or ischemic stroke, etc	No
12	HPS2-THRIVE	2014	25,673 patients with prior CVD	niacin + laropiprant vs. placebo	nonfatal MI, cardiac death, stroke, or arterial revascularization	No
<i>Fibrate trials</i>						
13	ACCORD-Lipid	2011	5,518 patients with type 2 diabetes	fenofibrate vs. placebo	fatal and nonfatal CHD, or stroke	No

39 ACCORD, Action to Control Cardiovascular Risk in Diabetes; AIM-HIGH, Atherothrombosis Intervention in Metabolic Syndrome with Low HDL/High
40 Triglycerides, Impact on Global Health Outcomes; Alpha Omega, Study of Omega-3 Fatty Acids and Coronary Mortality; ASCEND, A Study of Cardiovascular
41 Events in Diabetes; BIP, Bezafibrate Infarction Prevention; CHD, coronary heart disease; CVD, cardiovascular disease; DHA, docosahexaenoic acid; EPA,
42 eicosapentaenoic acid; FIELD, Fenofibrate Intervention and Event Lowering in Diabetes; HDL, high-density lipoprotein; HPS2-THRIVE, Heart Protection
43 Study 2–Treatment of HDL to Reduce the Incidence of Vascular Events; MI, myocardial infarction; OMEGA, Effect of Omega 3-Fatty Acids on the Reduction
44 of Sudden Cardiac Death After Myocardial Infarction; OMEMI, Omega-3 Fatty Acids in Elderly Patients With Myocardial Infarction; ORIGIN, Outcome
45 Reduction with an Initial Glargine Intervention; ref, reference; REDUCE-IT, Reduction of Cardiovascular Events with Icosapent Ethyl–Intervention Trial;
46 STRENGTH, Long-Term Outcomes Study to Assess Statin Residual Risk with Epanova in High Cardiovascular Risk Patients with Hypertriglyceridemia;
47 SU.FOL.OM3, Supplémentation en Folates et Omega-3; VITAL, Vitamin D and Omega A3 Trial; vs., versus.

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79 **Supplemental Table 2.** Interaction of diabetes with triglyceride for CVD mortality risks

	HR *	95% CI	<i>P</i> value
LnTG X diabetes †	1.30	1.05-1.61	0.015

80 Abbreviations: CI, confidence interval; HR, hazard ratio; LnTG, natural log-transformed
81 triglycerides.

82 * Adjusted for age, sex, ethnicity, obesity, poverty-income ratio, education, physical activity,
83 alcohol consumption, smoking status, survey period, hypercholesterolemia, hypertension,
84 family history of diabetes, duration of diabetes, diabetes medications, diabetes, and natural log-
85 transformed triglycerides (LnTG).

86 † The interaction factor, computed as natural log-transformed triglycerides multiplied by
87 diabetes (yes and no, coded as 1 and 0, respectively). The resulting interaction factor was
88 treated as a continuous variable in the interaction analysis.

89

90 **Supplemental Table 3.** Triglyceride (natural log-transformed) and risk for CVD mortality among
 91 26,570 adults, stratified by LDL cholesterol
 92

LDL cholesterol (mg/dL)	N	HR *	95% CI	P value
Participants without diabetes				
≤ 55	368	0.70	0.14-3.61	0.668
55.1-70	882	0.92	0.31-2.70	0.878
70.1-100	4,769	0.82	0.57-1.18	0.293
>100	13,822	1.01	0.84-1.21	0.932
Unknown (missing data)	2,751	0.91	0.71-1.16	0.438
Participants with diabetes				
≤ 55	139	2.34	0-2.6E+15	0.722
55.1-70	301	1.00	0.32-3.18	1.000
70.1-100	946	2.06	1.02-4.15	0.044
>100	2,165	1.16	0.83-1.63	0.375
Unknown (missing data)	427	1.27	0.92-1.76	0.144

93 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HR, hazard ratio; LDL,
 94 low-density lipoprotein.

95 * Adjusted for age, sex, ethnicity, obesity, poverty-income ratio, education, physical activity,
 96 alcohol consumption, smoking status, survey period, hypercholesterolemia, hypertension,
 97 family history of diabetes, duration of diabetes, and diabetes medications.

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Supplemental Table 4. Sensitivity analysis of the association of LnTG with CVD mortality risk when diabetes was defined by era-specific fasting glucose levels *

Models	HR	95% CI	<i>P</i> value
All participants (N=26,515)			
Model 1	1.23	1.12-1.36	<0.001
Model 2	1.16	1.04-1.28	0.006
Model 3	1.12	1.01-1.24	0.037
Model 4	1.05	0.94-1.16	0.395
Participants without diabetes (N=24,176)			
Model 1	1.08	0.96-1.20	0.205
Model 2	0.99	0.88-1.12	0.907
Model 3	0.96	0.85-1.08	0.478
Model 4	0.95	0.84-1.07	0.368
Participants with diabetes (N=2,339)			
Model 1	1.55	1.25-1.92	<0.001
Model 2	1.41	1.13-1.77	0.003
Model 3	1.38	1.10-1.72	0.006
Model 4	1.41	1.12-1.77	0.003

103 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HR, hazard ratio; LnTG, natural
 104 log-transformed triglycerides.

105 * In this sensitivity analysis, diabetes was defined as glucose \geq 140 mg/dL for participants from
 106 NHANES III (1988-1994) or \geq 126 mg/dL for participants from NHANES 1999-2014, due to the change
 107 of diabetes diagnostic criteria by the American Diabetes Association in 1997. Fifty-five participants
 108 were excluded due to lacking glucose data and 26,515 participants were included in the sensitivity
 109 analysis.

110 Model 1: adjusted for age, sex, and ethnicity; Model 2: adjusted for age, sex, ethnicity, obesity, poverty-
 111 income ratio, education, physical activity, alcohol consumption, smoking status, and survey period;
 112 Model 3: adjusted for all the factors in Model 2 plus hypercholesterolemia and hypertension; Model 4:
 113 adjusted for all the factors in Model 3 plus diabetes, family history of diabetes, duration of diabetes,
 114 and diabetes medications.
 115

116 **Supplemental Table 5.** Sensitivity analysis of the association of LnTG with CVD mortality risk when
 117 diabetes was defined as fasting glucose levels ≥ 126 mg/dL *

Models	HR	95% CI	P value
All participants (N=26,515)			
Model 1	1.24	1.12-1.36	<0.001
Model 2	1.16	1.05-1.28	0.005
Model 3	1.12	1.01-1.24	0.033
Model 4	1.05	0.94-1.16	0.414
Participants without diabetes (N=23,986)			
Model 1	1.04	0.93-1.17	0.476
Model 2	0.96	0.86-1.09	0.549
Model 3	0.93	0.83-1.05	0.254
Model 4	0.93	0.82-1.05	0.216
Participants with diabetes (N=2,529)			
Model 1	1.55	1.26-1.89	<0.001
Model 2	1.44	1.16-1.77	0.001
Model 3	1.40	1.13-1.73	0.002
Model 4	1.43	1.16-1.78	0.001

118 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HR, hazard ratio; LnTG, natural
 119 log-transformed triglyceride

120 * In this sensitivity analysis, diabetes was defined as fasting plasma glucose ≥ 126 mg/dL for all
 121 participants. Fifty-five participants were excluded due to lacking glucose data and 26,515 participants
 122 were included in the sensitivity analysis.

123 Model 1: adjusted for age, sex, and ethnicity; Model 2: adjusted for age, sex, ethnicity, obesity, poverty-
 124 income ratio, education, physical activity, alcohol consumption, smoking status, and survey period;
 125 Model 3: adjusted for all the factors in Model 2 plus hypercholesterolemia and hypertension; Model 4:
 126 adjusted for all the factors in Model 3 plus diabetes, family history of diabetes, duration of diabetes,
 127 and diabetes medications.
 128

129 **Supplemental Table 6.** Sensitivity analysis of the association of LnTG with CVD mortality risk
 130 among 26,570 adults after further adjustment for the use of lipid-lowering medications
 131

Models	HR	95% CI	<i>P</i> value
All participants (N=26,570)			
Model 1	1.06	0.95-1.17	0.315
Model 2	1.06	0.95-1.17	0.296
Participants without diabetes (N=22,592)			
Model 1	0.95	0.83-1.07	0.382
Model 2	0.95	0.83-1.08	0.404
Participants with diabetes (N=3,978)			
Model 1	1.30	1.08-1.56	0.006
Model 2	1.30	1.08-1.57	0.006

132 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HR, hazard ratio; LnTG, natural
 133 log-transformed triglycerides.

134 Model 1: adjusted for age, sex, ethnicity, obesity, poverty-income ratio, education, physical activity,
 135 alcohol consumption, smoking status, survey period, hypercholesterolemia, hypertension, diabetes,
 136 family history of diabetes, duration of diabetes, and diabetes medications.

137 Model 2: adjusted for all the factors in Model 1 plus the use of lipid-lowering medications (yes, no, or
 138 unknown).

139

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141 **Supplemental Table 7.** Sensitivity analysis of the association of LnTG with CVD mortality risk among
 142 23,496 adults after exclusion of those using lipid-lowering medications *
 143

Models	HR	95% CI	<i>P</i> value
All participants (N=23,496)			
Model 1	1.19	1.07-1.33	0.001
Model 2	1.12	1.00-1.25	0.049
Model 3	1.09	0.98-1.22	0.116
Model 4	1.04	0.93-1.16	0.522
Participants without diabetes (N=20,758)			
Model 1	1.02	0.90-1.16	0.709
Model 2	0.95	0.84-1.09	0.491
Model 3	0.94	0.82-1.07	0.337
Model 4	0.94	0.82-1.08	0.359
Participants with diabetes (N=2,738)			
Model 1	1.38	1.12-1.68	0.002
Model 2	1.28	1.04-1.58	0.020
Model 3	1.26	1.02-1.56	0.033
Model 4	1.32	1.06-1.64	0.013

144 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HR, hazard ratio; LnTG, natural
 145 log-transformed triglycerides.

146 * A total of 3,074 participants took lipid-lowering medications. After exclusion of those participants,
 147 23,496 participants were included in the sensitivity analysis.

148 Model 1: adjusted for age, sex, and ethnicity; Model 2: adjusted for age, sex, ethnicity, obesity, poverty-
 149 income ratio, education, physical activity, alcohol consumption, smoking status, and survey period;
 150 Model 3: adjusted for all the factors in Model 2 plus hypercholesterolemia and hypertension; Model 4:
 151 adjusted for all the factors in Model 3 plus diabetes, family history of diabetes, duration of diabetes,
 152 and diabetes medications.

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155 **Supplemental Table 8.** Sensitivity analysis of the association of LnTG with risk for CVD mortality
 156 among 25,956 adults* when the analysis was adjusted for systolic blood pressure (continuous) rather
 157 than hypertension (categorical)

158

	HR [†]	95% CI	<i>P</i> value
All participants (N=26,570)	1.03	0.93-1.14	0.594
Participants without diabetes (N=22,592)	0.91	0.80-1.04	0.168
Participants with diabetes (N=3,978)	1.31	1.09-1.58	0.005

159 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HR, hazard ratio; LnTG, natural
 160 log-transformed triglycerides.

161 * A total of 614 participants did not have systolic blood pressure data. After exclusion of those
 162 participants, the remaining 25,956 participants were included in the sensitivity analysis.

163 † Adjusted for age, sex, ethnicity, obesity, poverty-income ratio, education, physical activity, alcohol
 164 consumption, smoking status, survey period, hypercholesterolemia, systolic blood pressure (natural log-
 165 transformed), diabetes, family history of diabetes, duration of diabetes, and diabetes medications.

166

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169 **Supplemental Table 9.** Sensitivity analysis of the association of LnTG with risk for CVD mortality
 170 among 26,569 adults* when the analysis was adjusted for total cholesterol (continuous) rather than
 171 hypercholesterolemia (categorical)

172

Models	HR	95% CI	<i>P</i> value
All participants (N=26,569)			
Model 1	1.06	0.95-1.17	0.315
Model 2	1.04	0.93-1.16	0.520
Participants without diabetes (N=22,591)			
Model 1	0.95	0.83-1.07	0.381
Model 2	0.94	0.82-1.08	0.390
Participants with diabetes (N=3,978)			
Model 1	1.30	1.08-1.56	0.006
Model 2	1.24	1.02-1.52	0.033

173 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HR, hazard ratio; LnTG, natural
 174 log-transformed triglycerides.

175 * One participant did not have total cholesterol data. After exclusion of that participant, the remaining
 176 26,569 participants were included in the sensitivity analysis.

177 Model 1: adjusted for age, sex, ethnicity, obesity, poverty-income ratio, education, physical activity,
 178 alcohol consumption, smoking status, survey period, hypertension, diabetes, family history of diabetes,
 179 duration of diabetes, diabetes medications, and hypercholesterolemia.

180 Model 2: adjusted for all the factors in Model 1 except that hypercholesterolemia was replaced by total
 181 cholesterol (natural log-transformed).

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184 **Supplemental Table 10.** Sensitivity analysis of the association of LnTG with risk for CVD mortality
 185 among 26,527 adults* when the analysis was adjusted for HDL-cholesterol (continuous) rather than
 186 hypercholesterolemia (categorical)

187

Models	HR	95% CI	<i>P</i> value
All participants (N=26,527)			
Model 1	1.06	0.95-1.18	0.298
Model 2	1.06	0.94-1.19	0.341
Participants without diabetes (N=22,564)			
Model 1	0.95	0.84-1.08	0.425
Model 2	0.95	0.83-1.10	0.483
Participants with diabetes (N=3,963)			
Model 1	1.30	1.08-1.58	0.006
Model 2	1.32	1.07-1.63	0.011

188 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HDL, high-density lipoprotein;
 189 HR, hazard ratio; LnTG, natural log-transformed triglycerides.

190 *A total of 43 participants did not have HDL cholesterol data. After exclusion of these participants, the
 191 remaining 26,527 participants were included in the sensitivity analysis.

192 Model 1: adjusted for age, sex, ethnicity, obesity, poverty-income ratio, education, physical activity,
 193 alcohol consumption, smoking status, survey period, hypertension, diabetes, family history of diabetes,
 194 duration of diabetes, diabetes medications, and hypercholesterolemia.

195 Model 2: adjusted for all the factors in Model 1 except that hypercholesterolemia was replaced by HDL
 196 cholesterol (natural log-transformed).

197

198 **Supplemental Table 11.** Sensitivity analysis of the association of LnTG with risk for CVD mortality
 199 among 26,526 adults* when the analysis was adjusted for non-HDL cholesterol (continuous) rather than
 200 hypercholesterolemia (categorical)

201

Models	HR	95% CI	<i>P</i> value
All participants (N=26,526)			
Model 1	1.06	0.95-1.18	0.299
Model 2	1.04	0.92-1.17	0.530
Participants without diabetes (N=22,563)			
Model 1	0.95	0.84-1.08	0.425
Model 2	0.95	0.83-1.10	0.493
Participants with diabetes (N=3,963)			
Model 1	1.30	1.08-1.58	0.006
Model 2	1.25	1.00-1.55	0.049

202 Abbreviations: CI, confidence interval; CVD, cardiovascular disease; HDL, high-density lipoprotein;
 203 HR, hazard ratio; LnTG, natural log-transformed triglycerides.

204 *A total of 44 participants did not have non-HDL cholesterol data. After exclusion of these 44
 205 participants, the remaining 26,526 participants were included in the sensitivity analysis.

206 Model 1: adjusted for age, sex, ethnicity, obesity, poverty-income ratio, education, physical activity,
 207 alcohol consumption, smoking status, survey period, hypertension, diabetes, family history of diabetes,
 208 duration of diabetes, diabetes medications, and hypercholesterolemia.

209 Model 2: adjusted for all the factors in Model 1 except that hypercholesterolemia was replaced by non-
 210 HDL cholesterol (natural log-transformed).

211

212 **Supplemental Table 12.** Diabetes prevalence and triglyceride requirement in the recent 13 randomized
 213 controlled trials investigating the effect of triglyceride-lowering therapies on CVD
 214

Reference	Trial names	Diabetes prevalence	Is high triglyceride an inclusion criterion?
<i>Omega-3 trials</i>			
1	Omega	27%	No
2	Alpha Omega	21%	No
3	SU.FOL.OM3	unknown	No
4	ORIGIN	<50%	No
5	Risk and Prevention	60%	No
6	ASCEND	100%	No, triglyceride was not measured
7	VITAL	13.7%	No
8	REDUCE-IT	58.5%	Yes, 135-499 mg/dL
9	STRENGTH	70%	Yes, 180-500 mg/dL
10	OMEMI	20.7%	No
<i>Niacin trials</i>			
11	AIM-HIGH	33.9%	Yes, 150-400 mg/dL
12	HPS2-THRIVE	32.3%	No
<i>Fibrate trials</i>			
13	ACCORD-Lipid	100%	No

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 216 See Supplemental Table 1 for abbreviations and the reference for each trial.
 217

Supplemental Table 13. Current and future trials on omega-3 and cardiovascular disease (CVD)

No.	Trial identifier	Trial name	Trial status	Is diabetes an inclusion criterion?	Is high triglyceride an inclusion criterion?	Intervention
1	NCT01343342	Genes, Omega-3 Fatty Acids and Cardiovascular Disease Risk Factors (FAS)	Active, not recruiting	No	No	n-3 PUFA supplementation
2	NCT02178410	VITAL Rhythm Study	Active, not recruiting	No	No	Omega-3 fatty acids (fish oil) or vitamin D3
3	NCT01630213	Impact of Vitamin D Supplementation on Cardiac Structure and Function	Active, not recruiting	No	No	Vitamin D3 + fish oil
4	NCT01785004	Vitamin D and Omega-3 Adiposity Trial (VITAL Adiposity)	Active, not recruiting	No	No	Omega-3 fatty acids (fish oil) or vitamin D3
5	NCT01653678	Vitamin D and Omega-3 Hypertension Trial (VITAL Hypertension)	Active, not recruiting	No	No	Omega-3 fatty acids (fish oil) or vitamin D3
6	NCT02757872	Effects of Vitamin D and Fish Oil on the Kidney in Hypertensives	Active, not recruiting	No, diabetes was excluded	No	Omega-3 fatty acids (fish oil) or vitamin D3
7	NCT03192410	Prospective Cohort Study of 4,837 Post-myocardial Infarction Patients (Alpha Omega Cohort)	Active, not recruiting	No	No	Dietary intake
8	NCT01953705	n-3 PUFA for Vascular Cognitive Aging	Active, not recruiting	No	No	Omega-3 PUFA
9	NCT04658433	The Effect of Omega -3 Supplements on the Serum Levels of ACE/ACE2 Ratio as a Potential Key in Cardiovascular Disease and COVID-19; A Randomized Clinical Trial in the	Recruiting	No	No	Omega-3 fatty acids

		Covid-19 Uninfected Jordanian People				
10	NCT04763291	Cardiovascular and InflammAging Study	Recruiting	No	No	Juice Plus+ Omega blend
11	NCT04031508	Effect of a Parenteral Emulsion With Omega3 on PPHN	Recruiting	No	No	Lipid injectable emulsion with fish oil
12	NCT04562467	The Use of Icosapent Ethyl on Vascular Progenitor Cells in Individuals With Elevated Cardiovascular Risk	Recruiting	Partially	Yes	Icosapent Ethyl 1000 mg oral capsule
13	NCT03576989	Impact of Omega-3 Fatty Acid Oral Therapy on Healing of Chronic Venous Leg Ulcers in Older Adults	Recruiting	No	No	EPA+DHA
14	NCT04499820	Effect of OMEGA3 Supplementation in Diabetic Retinopathy	Recruiting	Yes	No	Omega-3 supplementation
15	NCT04632407	Can Flaxseed Prevent Broken Hearts in Women With Breast Cancer Study?	Recruiting	No	No	Flax "milk"
16	NCT04120077	Combined Effects of Diabetes Self-Management Education and Nutritional Supplementation on Visual Function and Retinopathy	Recruiting	Partially, also includes prediabetes	No	Multi-component formula or omega-3 fatty acid supplement
17	NCT04496817	Enriched Eggs for Retina Health in Type 2 Diabetes	Not yet recruiting	Yes	No	Docosahexaenoic acid and lutein enriched eggs vs regular eggs
18	NCT04386525	Omega 3 and Ischemic Stroke; Fish Oil as an Option (OmegaStroke)	Not yet recruiting	No	No	Omega-3 fish oil

220 Abbreviations: DHA, docosahexaenoic acid; EPA, eicosapentaenoic acid; PUFA, polyunsaturated fatty acid.

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Supplemental Table 14. Current and future trials on niacin and cardiovascular disease (CVD)

No.	Trial identifier	Trial name	Trial status	Is diabetes an inclusion criterion?	Is high triglyceride an inclusion criterion?	Intervention
1	NCT04870866	NAD Supplementation to Prevent Progressive Neurological Disease in Ataxia Telangiectasia	Active, not recruiting	No	No	Nicotinamide ribonucleoside
2	NCT04040959	Nicotinamide Riboside Supplementation for Treating Arterial Stiffness and Elevated Systolic Blood Pressure in Patients With Moderate to Severe CKD	Recruiting	No	No	Nicotinamide riboside
3	NCT03821623	Nicotinamide Riboside for Treating Elevated Systolic Blood Pressure and Arterial Stiffness in Middle-aged and Older Adults	Recruiting	No, diabetes was excluded	No	Nicotinamide riboside
4	NCT04528004	Mechanistic Studies of Nicotinamide Riboside in Human Heart Failure	Recruiting	No	No	Nicotinamide riboside
5	NCT04112043	Nicotinamide Riboside as an Enhancer of Exercise Therapy in Hypertensive Older Adults (The NEET Trial)	Recruiting	No	No	Nicotinamide Riboside
6	NCT04913805	Matching Perfusion and Metabolic Activity in HFpEF	Recruiting	No	No	Potassium nitrate + propionyl-L-Carnitine + nicotinamide riboside
7	NCT03743636	Nicotinamide Riboside With and Without Resveratrol to Improve Functioning in Peripheral Artery Disease	Recruiting	No	No	Nicotinamide riboside

8	NCT04750616	NAD+ Augmentation in Cardiac Surgery Associated Myocardial Injury Trial	Recruiting	No	No	Niacinamide
9	NCT04632121	Oral Nicorandil in ST Elevation Myocardial Infarction Patients Undergoing Primary Percutaneous Coronary Intervention	Not yet recruiting	No	No	Nicorandil
10	NCT04903210	Nicotinamide Mononucleotide in Hypertensive Patients	Not yet recruiting	No	No	Nicotinamide mononucleotide

223 Abbreviations: CKD, chronic kidney disease; NAD, nicotinamide adenine dinucleotide.

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Supplemental Table 15. Current and future trials on fibrate and cardiovascular disease (CVD)

No.	Trial identifier	Trial name	Trial status	Is diabetes an inclusion criterion?	Is high triglyceride an inclusion criterion?	Intervention
1	NCT04140201	Effect of Lipid Lowering Agents on Diabetic Retinopathy and Cardiovascular Risk of Diabetic Patients	Not yet recruiting	Yes	No	Simvastatin, or fenofibrate, or omega-3 fatty acid

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