

Evidence Analysis Library

Disorders of Lipid Metabolism: Saturated Fat (2023) Evidence-Based Nutrition Practice Guideline

Summary of Reduction and Replacement of Saturated Fat and Blood Lipids Systematic Reviews Table

Systematic review	Outcomes [(mean difference-mmol/L) or % reduction ⁺ , 95% CI]			
	TC	LDL-C	HDL-C	TG
Total SFA intake				
Reduction vs. usual diet: Hooper et al. 2020*	-0.24 (-0.36, -0.13)	-0.19 (-0.33, -0.05)	-0.01 (-0.02, 0.01)	-0.08 (-0.21, 0.04)
Reduction: Harcombe et al. 2015**	-12.6% (6.7%) vs -6.5% (5.1%) (p < .05)			
Replacement-PUFA: Mensink 2016*	-0.064 (-0.070, -0.058)	-0.055 (-0.061, -0.050)	-0.005 (-0.006, -0.003)	-0.010 (-0.014, -0.007)
Replacement-PUFA: Hooper et al. 2020*	-0.28 (-0.37, -0.19)	Not estimable	-0.01 (-0.04, 0.02)	-0.16 (-0.30, -0.01)
Replacement-PUFA: Ramsden et al 2016**+	-13.8% vs -1.0% (p<0.001)			
Replacement-MUFA: Mensink 2016*	-0.046 (-0.051, -0.040)	-0.042 (-0.047, -0.037)	-0.002 (-0.004, -0.000)	-0.004 (-0.007, -0.001)
Replacement-MUFA: Hooper et al 2020*	0.30 (-0.93, 1.53)	Not estimable	Not estimable	Not estimable
Replacement-CHO: Mensink 2016*	-0.041 (-0.047, -0.035)	-0.033 (-0.039, -0.027)	-0.010 (-0.012, -0.008)	0.011 (0.007, 0.014)
Replacement-CHO: Hooper et al 2020*	-0.19 (-0.40, 0.01)	-0.16 (-0.35, 0.02)	-0.01 (-0.03, 0.00)	-0.04 (-0.32, 0.25)

L=liter; CI=confidence interval; TC=total cholesterol; LDL-C=low-density lipoprotein cholesterol; HDL-C=high-density lipoprotein cholesterol; TG=triglycerides; PUFA=polyunsaturated fatty acids; MUFA=monounsaturated fatty acids; CHO=carbohydrates; vs (versus)

Blue=not significant; Green=improved; Grey=not reported

*Certainty of evidence not available due to inability to access analysis

**Percent reduction in saturated fat group compared to replacement nutrient