Table S1: Body weight and triglyceride status of 12 month-old mice.

	Genotype	BW (g)	Triglyceride (mg/dl)	n
Male	WT	38.7±1.2	135.8±7.7	15
	cyp7b1$^{-/-}$	36.0±1.7	166.0±12.4	12
	apoe$^{-/-}$	41.3±2.5	269.7±13.6*	15
	apoe$^{-/-}$;cyp7b1$^{-/-}$	41.8±1.9	265.1±13.5*	15
Female	WT	32.2±3.3	129.0±28.4	6
	cyp7b1$^{-/-}$	30.0±2.2	162.4±20.6	8
	apoe$^{-/-}$	30.4±2.9	380.0±31.2*†	10
	apoe$^{-/-}$;cyp7b1$^{-/-}$	31.8±1.2	385.4±32.6*†	10

Mean±SEM, *p<0.05 vs WT, †p<0.05 vs male

Table S2: Body weight and triglyceride status of 6 month-old mice.

	Genotype	BW (g)	Triglyceride (mg/dl)	n
Male	WT	30.3±1.0	151.8±27.7	8
	cyp7b1$^{-/-}$	29.8±1.4	177.5±13.2	12
	apoe$^{-/-}$	33.4±2.2	275.2±53.0	10
	apoe$^{-/-}$;cyp7b1$^{-/-}$	33.9±0.9	281.7±29.7	10
Female	WT	26.5±1.7†	197.2±19.7	6
	cyp7b1$^{-/-}$	26.5±0.7†	166.5±22.8	12
	apoe$^{-/-}$	26.3±1.6†	289.7±27.8	9
	apoe$^{-/-}$;cyp7b1$^{-/-}$	25.3±1.8†	224.6±12.5	6

Mean±SEM, †$p<0.05$ vs male

Table S3: Cholesterol and 27HC status of E_2-treated *apoe*$^{-/-}$ and *apoe*$^{-/-}$*;cyp7b1*$^{-/-}$ mice.

	Treatment	Cholesterol (mg/dl)	Triglyceride (mg/dl)	27HC (ng/ml)	E2 (pg/ml)	BW (g)
apoe$^{-/-}$	Vehicle	2185±73	202±15	1736±141	7±2	27.4±1.5
	E2, 6 ug	1968±102	122±15*	1401±56*	60±18*	23.9±0.6*
	E2, 50 ug	1112±287*	113±7*	1052±156*	1269±171*	23.3±0.8*
apoe$^{-/-}$ cyp7b1$^{-/-}$	Vehicle	1257±72†	198±10	1902±139†	6±1	28.4±1.2
	E2, 6 ug	1219±73†	126±19*	1950±165†	54±17*	25.8±0.6
	E2, 50 ug	1017±227	134±21*	1741±141†	1219±79*	23.1±0.6*

Mean±SEM, *p<0.05 vs Veh, †p<0.05 vs apoe$^{-/-}$, n=5-8, except apoe$^{-/-}$;cyp7b1$^{-/-}$ n=12