Supplemental Data for:

Dietary unsaturated fat increases HDL metabolic pathways involving apoE favorable to reverse cholesterol transport

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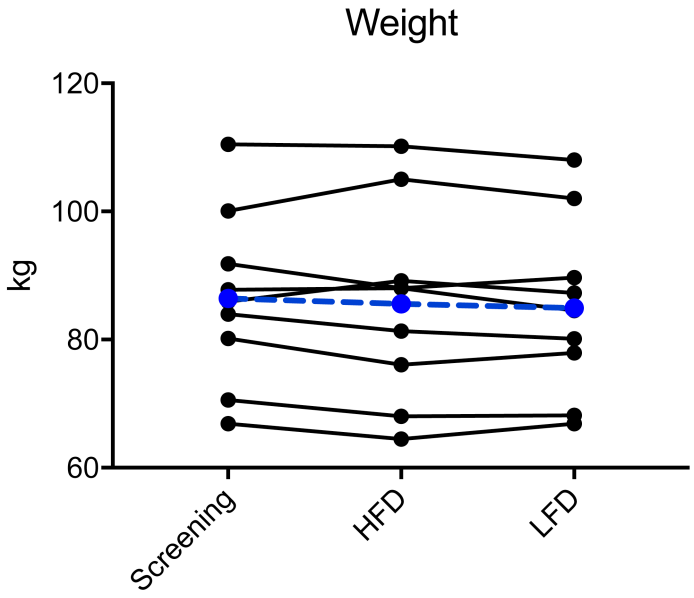

Supplemental Figure 1: No change in body weight during dietary intervention period.

Weight was measured at screening and following 4 weeks on high fat diet (HFD) and low fat diet (LFD). Mean value (n=9) shown in blue dashed line.

Supplemental Table 1: Mean (n=9) apoA-I pool sizes (mg), fractional catabolic rates (FCR, pools/day) and synthesis rates (mg/day) in plasma and in subspaces of HDL containing apoE (E+) or not containing apoE (E-). HFD = high unsaturated fat diet, LFD = low fat diet.

APOA-I POOL SIZE (MASS) (mg)

HFD											LFD									
	E+					E-						E+					E-				
ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	
1	38	59	93	29	1	319	1171	1588	150	1	20	16	94	28	1	460	1725	1361	468	
2	20	29	129	46	2	208	1017	1951	166	2	59	79	93	25	2	1042	1527	258	164	
3	24	46	65	7	3	694	1319	874	75	3	24	38	31	9	3	905	1652	712	235	
4	57	70	33	13	4	828	1499	314	28	4	11	6	11	55	4	411	669	922	260	
5	21	22	14	10	5	1034	869	1245	241	5	22	62	20	6	5	367	1324	1167	77	
6	28	36	57	22	6	453	795	1306	376	6	9	14	25	8	6	262	1000	1566	171	
7	27	38	30	20	7	580	1229	444	162	7	25	43	32	8	7	472	809	1222	248	
8	38	123	152	23	8	339	1309	1122	545	8	29	52	125	31	8	262	1000	1566	171	
9	13	20	48	19	9	688	1026	1902	410	9	20	23	42	38	9	940	1816	1849	211	
Mean	30	49	69	21	Mean	571	1137	1194	239	Mean	24	37	53	23	Mean	569	1280	1180	223	
SEM	4	11	16	4	SEM	89	76	193	57	SEM	5	8	13	6	SEM	102	141	163	36	

APOA-I FRACTIONAL CATABOLIC RATE (FCR) (pools/day)

HFD											LFD									
	E+					E-						E+					E-				
ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	
1	3.6	3.6	1.2	5.4	1	0.25	0.31	0.30	6.34	1	1.3	0.5	0.5	3.5	1	0.27	0.35	0.35	2.34	
2	2.3	1.1	0.4	1.0	2	0.33	0.49	0.50	6.98	2	1.1	1.5	0.5	4.6	2	0.35	0.38	0.38	0.63	
3	1.0	3.3	1.3	12.0	3	0.32	0.38	0.34	6.57	3	1.5	0.4	1.2	4.7	3	0.43	0.51	0.43	1.06	

4	0.2	2.7	2.3	14.6	4	0.35	0.48	0.44	12.62	4	1.0	2.1	2.4	0.7	4	0.35	0.45	0.41	2.16
5	1.0	0.5	0.4	4.0	5	0.57	0.60	0.56	10.77	5	0.6	0.4	0.4	2.3	5	0.31	0.38	0.35	4.87
6	6.0	4.4	2.2	9.3	6	0.40	0.50	0.51	3.21	6	2.0	1.7	1.5	13.7	6	0.23	0.36	0.38	11.40
7	7.4	2.9	2.0	6.9	7	0.43	0.92	0.73	2.12	7	1.8	1.5	0.5	9.0	7	0.54	0.55	0.58	2.70
8	3.4	2.3	1.0	16.2	8	0.23	0.35	0.33	1.12	8	2.6	0.5	1.5	5.6	8	0.22	0.33	0.31	2.61
9	5.8	4.0	1.8	7.7	9	0.40	0.45	0.51	4.39	9	1.8	0.4	8.9	14.2	9	0.25	0.29	0.32	0.58
Mean	3.4	2.8	1.4	8.6	Mean	0.36	0.50	0.47	6.01	Mean	1.5	1.0	1.9	6.5	Mean	0.33	0.40	0.39	3.15
SEM	0.8	0.4	0.2	1.7	SEM	0.03	0.06	0.05	1.28	SEM	0.2	0.2	0.9	1.6	SEM	0.03	0.03	0.03	1.12

APOA-I SYNTHESIS RATES (mg/day)

HFD										**LFD**									
	E+					E-					E+					E-			
ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta	ID	alpha-1	alpha-2	alpha-3	prebeta
1	107	182	99	23	1	51	326	358	23	1	5	1	46	7	1	31	156	129	12
2	4	4	45	5	2	11	140	263	30	2	20	103	37	3	2	229	534	26	19
3	19	138	34	13	3	203	502	255	44	3	6	10	20	2	3	364	783	125	79
4	9	42	18	95	4	271	697	126	13	4	1	9	20	16	4	127	265	360	78
5	8	0	1	0	5	251	248	645	162	5	4	22	3	1	5	42	400	94	16
6	10	25	95	27	6	112	307	559	140	6	3	10	32	12	6	32	340	571	85
7	137	97	57	33	7	118	1071	151	39	7	33	60	14	5	7	126	319	325	49
8	12	278	149	25	8	44	319	331	129	8	6	10	116	20	8	47	255	356	84
9	4	10	86	26	9	238	440	943	306	9	4	10	61	18	9	124	198	342	448
Mean	34	86	65	27	Mean	144	450	404	98	Mean	9	26	39	9	Mean	125	361	259	97
SEM	17	32	15	9	SEM	33	94	88	32	SEM	4	11	11	2	SEM	37	65	58	45

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	N/A
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	N/A
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	3-5
	2b	Specific objectives or hypotheses	5
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	15 (crossover)
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	N/A
Participants	4a	Eligibility criteria for participants	15
	4b	Settings and locations where the data were collected	15
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	15-16, 26
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	20
	6b	Any changes to trial outcomes after the trial commenced, with reasons	No
Sample size	7a	How sample size was determined	20
	7b	When applicable, explanation of any interim analyses and stopping guidelines	N/A
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	15
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	No

Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	15
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	15
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	N/A
	11b	If relevant, description of the similarity of interventions	N/A
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	20-21
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	5
	13b	For each group, losses and exclusions after randomisation, together with reasons	N/A (crossover)
Recruitment	14a	Dates defining the periods of recruitment and follow-up	
	14b	Why the trial ended or was stopped	N/A
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	30
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	N/A (crossover)
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	Fig 4-6
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	N/A
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	Fig 4-6
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	None
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	13
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	13
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	9-14
Other information			

Registration	23	Registration number and name of trial registry	1
Protocol	24	Where the full trial protocol can be accessed, if available	N/A
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	1

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.

CONSORT

TRANSPARENT REPORTING of TRIALS

CONSORT 2010 Flow Diagram