

Supplementary Table 1. Prospective Cohorts and Nested Case-Control Studies Investigating Dietary Fat (Total, Saturated, Monounsaturated, Polyunsaturated and *Trans* fats) and Coronary Heart Disease

Study Name	Country	Start of Study (year)	Follow-up (years)	<i>n</i>	Participants	Men (%)	Age at Baseline (years)	Exclusions
The Western Electric Study Paul <i>et al.</i> 1963	US	1957	4 y	1,989	Employees of Western Electric , no previous CHD	100	40-55	Evidence of CHD, permanent disability, special problems in follow-up unrelated to CHD.
Diet and Heart Morris <i>et al.</i> 1977	UK	1956	10-20	337	London Transport and Bank employees. All healthy males.	100	30-67	History or clinical evidence of CHD.
The Puerto Rico Heart Health Program Garcia-Palmieri <i>et al.</i> 1980 Gordon <i>et al.</i> 1981	Puerto Rico	1965	6	8,218	Urban and rural Puerto Rico men, no previous CHD	100	45-64	Men with CHD
The Framingham Study Gordon <i>et al.</i> 1981	US	1966	4	859	Selected from general population, no previous CHD	100	45-64	Men with CHD
The Honolulu Heart Study Gordon <i>et al.</i> 1981; McGee <i>et al.</i> 1984	Honolulu	1965	6 10	7,272 7,088	Men of Japanese ancestry, no previous CHD	100	45-64	prevalent CHD, stroke, cancer, incorrect 24-hour recall
The Western Electric Study Shekelle <i>et al.</i> 1981	US	1957	19	2,107	Employees of Western Electric , no previous CHD	100	40 - 55	evidence of CHD, missing data for diet, height or weight, or serum cholesterol, absence from 2nd examination, and missing data at re-examination
Miettinen <i>et al.</i> (nested case-control) 1982	Finland	1974	5 - 7	1,222 (33 cases; 64 controls)	Previous participants of health examinations organised by their employers, no previous CHD	100	40 - 55	Prior IHD

Supplementary Table 1.

Study Name	Diet Assessment Method	Identification of CHD Cases	CHD Endpoints			Results For:	Table or figure number for results
			CHD event	n of events	Event Rate (%)		
The Western Electric Study Paul <i>et al.</i> 1963	Dietary History - collected at baseline and one-year later	Men examined on a yearly basis for evidence of angina pectoris, MI (clinical history plus ECG findings). Death from CHD assumed on basis of information from family, physicians, hospital records, death certificates and coroners reports.	CHD Event	88	4.4	Comparison of mean intakes of SAFA, unsaturated fat, linoleic acid, linolenic acid, arachidonic acid, for CHD patients compared with non-CHD participants.	Tables S7 and S13
			Angina	47	2.4		
			MI	28	1.4		
			CHD Death	13	0.6		
Diet and Heart Morris <i>et al.</i> 1977	7-day weighed diet record	Incidence of CHD ascertained from Personnel records, correspondance with retired men, tagging of the Registrar General's Office, death notification.	CHD Event	45	13	Comparison of CHD incidence rates in tertiles of total fat intake, animal fat, dairy fat, and marine/vegetable fats and oils.	Tables S2,S7 and S13
			CHD Death	26	8		
The Puerto Rico Heart Health Program Garcia-Palmieri <i>et al.</i> 1980 Gordon <i>et al.</i> 1981	24-hour recall - completed at baseline	Total coronary heart disease, MI or CHD death, other (angina, coronary insufficiency). Ascertained through hospital systems.	Total CHD	286	3.5	Comparison of mean intakes of total fat, SAFA, MUFA and PUFA for non CHD participants vs Total CHD, MI or CHD death, or Other CHD	Tables S2, S7, S10 and S13
			MI or CHD death	163	2.00		
			Other	123	1.5		
The Framingham Study Gordon <i>et al.</i> 1981	24-hour recall - completed at baseline	Routine examinations at regular intervals, and hospital admission surveillance. Endpoints include total CHD fatal and non-fatal), MI or CHD death, and other (angina or coronary insufficiency). No details provided for diagnosis criteria in this report.	Total CHD	79	9.2	Comparison of mean intakes of total fat, SAFA, MUFA and PUFA for non CHD participants vs Total CHD, MI or CHD death, or Other CHD	Tables S2, S7, S10 and S13
			MI or CHD death	51	5.9		
			Other	28	3.2		
The Honolulu Heart Study Gordon <i>et al.</i> 1981; McGee <i>et al.</i> 1984	24-hour recall - completed at baseline	Total coronary heart disease, MI or CHD death, other (angina, coronary insufficiency). Ascertained through hospital systems.	Total CHD	264	3.6	Comparison of mean intakes of total fat, SAFA, MUFA and PUFA for non CHD participants vs Total CHD, MI or CHD death, or Other CHD	Tables S2, S7, S10 and S13
			MI or CHD death	164	2.2		
			Other	100	1.4		
The Western Electric Study Shekelle <i>et al.</i> 1981	Dietary History - collected at baseline and one-year later	ICD definition for fatal & non-fatal CHD events. Review of national registrys and medical records	CHD death	215	10.2	Death rates per tertile of intake of SAFA and PUFA. Logistic Regression for SAFA or PUFA and the relative risks calculated from these.	Tables S7 and S13 Tables S8 and S14
Miettinen <i>et al.</i> (nested case-control) 1982	Fatty acid composition of PL, CE & serum TAG	Fatal or non-fatal MI, verified by chest pain, elevated cardiac enzymes and ECG changes, or sudden death.	CHD event	33	2.7	Comparison of serum lipid fatty acid concentrations (SAFA, MUFA, PUFA), cases vs controls.	Tables S7, S10 and S13

Supplementary Table 1. Prospective Cohorts and Nested Case-Control Studies Investigating Dietary Fat (Total, Saturated, Monounsaturated, Polyunsaturated and *Trans* fats) and Coronary Heart Disease

Study Name	Country	Start of Study (year)	Follow-up (years)	<i>n</i>	Participants	Men (%)	Age at Baseline (years)	Exclusions
The Zutphen Study Kromhout & de Lezenne Coulander 1984	Netherlands	1960	10	857	Selected from general population, no previous CHD	100	40-59	none - total <i>n</i> was 871, but 2% already had CHD, this table is presenting only the CHD-free men's results
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	Ireland - US	1959	20	1,001	men born & living in Ireland, born in Ireland and immigrated to Boston, born in Boston of Irish immigrants	100	30 - 69	not noted
Salonen <i>et al.</i> (nested case-control) 1985	Finland	1977	5	12,155 (92 case and control pairs)	Selected from the general population	75	30 - 64	54 pairs had evidence of CHD
Farchi <i>et al.</i> 1989	Italy	1960	15	1,536	Selected from general population	100	45 - 64	only those with missing data
The Framingham Study Posner <i>et al.</i> 1991	US	1966	16	813	Participants from the original cohort, started in 1948	100	45 - 65	Previous CVD or cancer
MRFIT Dolecek 1992	US	1973	10.5	6,250	Participants in the 'usual care' group of the trial. High risk group (smokers, hypertension, or elevated serum cholesterol)	100	35 - 57	not noted
The Caerphilly Study Fehily <i>et al.</i> 1993	South Wales	1979	5	1,881	Residents of Caerphilly (89% response rate)	100	45 - 59	This report using only results from men without evidence of preexisting CHD (the reported <i>n</i> in this study varies, and around 64 participants seem to be missing!)
Goldbourt, Yaari & Medalie 1993	Israel	1963	23	10,059	Civil servants & municipal employees	100	aged ≥ 40	not noted
The Nurses Health Study Willett <i>et al.</i> 1993	US	1980	8	85,095	Nurses, no previous CHD	0	34 - 59	left > 10 items on questionnaires blank, implausible energy intakes, previous diagnosed cancer, angina, MI, stroke or other CVD, high serum cholesterol or diabetes

Supplementary Table 1.

Study Name		Identification of CHD Cases	CHD Endpoints			Results For:	Table or figure number for results
Author, year published	Diet Assessment Method		CHD event	n of events	Event Rate (%)		
The Zutphen Study Kromhout & de Lezenne Coulander 1984	cross-check dietary history method (check with spouse & household groceries) - completed at baseline	CHD death - not defined	CHD death	30	3.5	Comparison of mean SAFA intakes, CHD events compared to Non-CHD events	Table S7
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	diet-history completed at baseline	CHD death ascertained from death certificates	CHD death	110	11	Comparison of mean intakes of SAFA and PUFA for non CHD participants vs CHD death Logistic regression for SAFA and PUFA and the relative risk calculated from these.	Tables S7 and S13 Tables S8 and S14
Salonen <i>et al.</i> (nested case-control) 1985	Serum fatty acid composition	Death information obtained from National death Certificate Register. CAD defined ICD codes 410 to 414.	CHD Death	2,030		Comparison of mean serum concentrations of SAFA.	Table S7
Farchi <i>et al.</i> 1989	Diet history completed 5 yr after start of study	Mortality certificates, hospital records, relatives & other witnesses	CHD death	58	3.8	Comparison of mean intakes of Total fat, SAFA, PUFA, MUFA for non CHD participants vs CHD death	Tables S2, S7, S10 and S13
The Framingham Study Posner <i>et al.</i> 1991	24-hour recall - completed at baseline	Incident CHD: angina pectoris, coronary insufficiency, MI, sudden death (death within one hour of symptom onset and no other obvious cause) or non-sudden death from CHD. Clinical examinations, ECG and cardiac enzymes used to diagnose MI.	Incident CHD	213	26	Relative risk of CHD Event and sample mean intakes of Total Fat, SAFA, MUFA, PUFA to the National Cholesterol Education Program Recommendations	Tables S2, S7, S10 and S13
MRFIT Dolecek 1992	24-hr recall - completed years 1, 2, 3 and 6	Using National Death Index and death certificates, mortality determined according to ICD codes. Results presented as CHD, including deaths and clinical MI.	CHD death	175	2.8	Proportional Hazards Regression for PUFA intake and CHD Death. Relative Risks Quintile 5 compared with Quintile 1 for PUFA intakes.	Tables S13 and S14
The Caerphilly Study Fehily <i>et al.</i> 1993	FFQ - completed at baseline (a subsample did 7-day weighed diet record)	Ischaemic Heart Disease, determined from ECG and Rose Questionnaire conducted at follow-up. Hospital records used to confirm history acute MI (WHO criteria - ECG only) Notifications of death were used for IHD deaths (ICD codes 410-414).	IHD event	74	3.9	Comparison of mean intakes of Total Fat and Animal Fat for no IHD vs incident IHD. Relative Odds of incident IHD for Quintile 5 of Quintile 1 for IHD event and Total Fat and Animal Fat.	Tables S2 and S7 Tables S3 and S8
Goldbourt, Yaari & Medalie 1993	Short dietary questionnaire completed at baseline (not sure if repeated throughout study)	MI base on ECG changes or autopsy findings showing evidence of recent MI an/or coronary thrombosis, sudden death, angina defined by the Rose questionnaire.	CHD mortality	723	7.2	Event rates for Quintile 5 compared to Quintile 1 of SAFA and linoleic intakes.	Tables S7 and S13
The Nurses Health Study Willett <i>et al.</i> 1993	FFQ - collected 1980	Medical records, hospital records, autopsy or death certificate MI defined as per WHO criteria (symptoms plus elevated cardiac enzymes or ECG changes).	Incident CHD (non-fatal MI & fatal CHD)	431	0.5	Relative Risks for Quintile 5 compared to Quintile 1 for intakes of <i>trans</i> fat and CHD Event.	Table S5

Supplementary Table 1. Prospective Cohorts and Nested Case-Control Studies Investigating Dietary Fat (Total, Saturated, Monounsaturated, Polyunsaturated and *Trans* fats) and Coronary Heart Disease

Study Name	Country	Start of Study (year)	Follow-up (years)	<i>n</i>	Participants	Men (%)	Age at Baseline (years)	Exclusions
The Seven Countries Study Kromhout <i>et al.</i> 1995	Different Countries	1958	25	12,763	16 Cohorts	100	40 - 59	not noted
Esrey, Joseph & Grover 1996	Canada	1972	12.4	4,546	Selected from general population, no previous CHD	?	30 - 79	taking lipid-lowering medication, history CVD, missing data
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	US	1986	6	43,757	Health Professionals, no previous CHD	100	40 - 75	previous MI, angina, coronary artery surgery, stroke, TIA, Peripheral arterial disease, diabetes
Ohrvall <i>et al.</i> 1996	Sweden	1970	19	2,016	Men living in Uppsala no previous CHD (82% response rate)	100	50	Presence of CHD (but men with hypertension, hyperlipidemia, or impaired glucose intolerance remained in study and treatment initiated).
The AT/BC Study Pietnen <i>et al.</i> 1997	Finland	1985	6.1	21,930	High risk group (smokers), no previous CHD	100	50 - 69	history cancer or other serious disease, use of vitamin E, A or beta-carotene supplements in excess of predefined doses, treatment with anticoagulating agents, prior diagnosis of MI, angina, stroke or diabetes, men with typical exercise-related chest pain, and men with missing CV risk factors.
Mann <i>et al.</i> 1997	UK	1980	13.3	10,802	Meat eaters and vegetarians	38	34	none
The Nurses Health Study Hu <i>et al.</i> 1997	US	1980	14	80,082	Nurses no previous CHD	0	34 - 59	left > 10 items on questionnaires blank, implausible energy intakes, previous diagnosed cancer, angina, MI, stroke or other CVD, high serum cholesterol or diabetes

Supplementary Table 1.

Study Name	Diet Assessment Method	Identification of CHD Cases	CHD Endpoints			Results For:	Table or figure number for results
			CHD event	n of events	Event Rate (%)		
The Seven Countries Study Kromhout <i>et al.</i> 1995	Weighed Food Records	Mortality from CHD, as per ICD 410-414 classification, as well as classifications developed specifically for this study. CHD death not defined.	CHD death	1,918 (approx)	15	Correlations between Total Fat, SAFA, MUFA, and PUFA and CHD	Tables S2, S7, S10 and S13
Esrey, Joseph & Grover 1996	24-hour recall - completed at baseline	CHD death not defined	CHD death:			Comparison of mean intakes of Total Fat, SAFA, MUFA and PUFA for CHD patients vs no CHD death. Relative Risks associated with a 1 unit increase in intake of Total Fat, SAFA, MUFA and PUFA	Tables S2, S7, S10 and S13
			age 30 - 59 y	52	2		
			age 60 - 79 y	192			Tables S4, S9, S12 and S15
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	FFQ - collected at baseline	Events confirmed with medical records, necropsy reports, death certificates (plus confirmation from other sources). MI defined as per WHO criteria. Fatal CHD includes sudden death.	Total MI	734	2	Relative Risk for Quintile 5 compared to Quintile 1 for intakes of Total Fat, SAFA, linoleic, linolenic, and <i>trans</i> fat.	Tables S3, S5, S8, and S14
			Fatal CHD	229	0.5	Relative Risk for each 5% increase in energy from total fat, SAFA and linoleic, 2% increase in <i>trans</i> , and 1% increase in linolenic.	Tables S4, S6, S9 and S15
Ohrvall <i>et al.</i> 1996	Serum Fatty Acid concentrations collected from 1,746 subjects (87%)	CHD event described as those suffering MI (fatal or non-fatal) but definition of events not provided.	CHD Event	180	9	Comparison of mean cholesterol ester concentrations of SAFA, MUFA and PUFA for CHD patients and non-CHD participants.	Tables S7, S10 and S13
The AT/BC Study Pietnen <i>et al.</i> 1997	FFQ - collected at baseline (validated in a pilot study)	Major coronary event (MCE) include first nonfatal MI (alive after 28 days of event), or death due to coronary event. Events ascertained fro death certificates (ICD 9th revision, codes 410-414). Validity of the diagnosis of MCE determined by checking hospital and pathology records in a subgroup.	Major Coronary Event	1,399	6.4	Relative Risk for Quintile 5 compared to Quintile 1 for intakes of Total TAG, SAFA, MUFA, PUFA and <i>trans</i> fat.	Tables S3, S5, S8, S11, and S14
			coronary death	635	2.9	Relative Risk for increases in intake of SAFA, MUFA, linoleic, linolenic.	Tables S9, S12 and S15
Mann <i>et al.</i> 1997	semiquantitative FFQ - completed at baseline	If CVD noted on death certificate, hospital records were checked	IHD mortality	64	0.6	Standardized Death Rates for Tertile 1 compared to Tertile 3 for animal fat (calculated Relative Risk for this report)	Table S7
The Nurses Health Study Hu <i>et al.</i> 1997	FFQ - collected 1980, 1984, 1986, 1990	Medical records, hospital records, autopsy or death certificate MI defined s per WHO criteria (symptoms plus elevated cardiac enzymes or ECG changes).	Incident CHD	939	1.2	Relative Risk for Quintile 5 compared to Quintile 1 for Total Fat, SAFA, MUFA, PUFA, <i>trans</i> .	Tables S3, S5, S8, S11 and S14
			(non-fatal MI & fatal CHD)			Relative Risk for each 5% increase in energy from total fat, MUFA and SAFA, and 2% increase in <i>trans</i> .	Tables S4, S6, S9, S12 and S15

Supplementary Table 1. Prospective Cohorts and Nested Case-Control Studies Investigating Dietary Fat (Total, Saturated, Monounsaturated, Polyunsaturated and *Trans* fats) and Coronary Heart Disease

Study Name	Country	Start of Study (year)	Follow-up (years)	<i>n</i>	Participants	Men (%)	Age at Baseline (years)	Exclusions
The Nurses Health Study Hu <i>et al.</i> 1999	US	1980	10	76,283	Nurses no previous CHD	0	30-55	left > 10 items on questionnaires blank, implausible energy intakes, previous diagnosed cancer, angina, MI, stroke or other CVD, high serum cholesterol or diabetes
The Zutphen Elderly Study Oomen <i>et al.</i> 2001a & 2001b	Netherlands	1985	10	667	Selected from general population	100	mean 71	Previous diagnosis CAD.
The Physicians Health Study (nested case-control) Albert <i>et al.</i> 2002	US	1982	17	22,071	Male physicians, no previous CHD	100	40 - 84	History of MI, stroke, transient ischemic attack, cancer
The Health & Lifestyle Survey Bonniface & Teft 2002	UK	1984	16	2,676	Selected from general population, no previous CHD		40 - 75	CHD, diabetes, on antihypertensive treatment, on special diet
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	Finland	1995	5	415	Patients with clinically established CAD	67	33 - 74	Included patients with first CABG or PTCA (with no previous CABG) or first or recurrent AMI, or symptoms of acute myocardial ischemia
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003	Denmark	1964, 1975, 1980, 1991	16	3,686	Selected from general population, no previous CHD	50	30-71 y	Implausible dietary assessment results, previous diagnosis CHD (n=80), diabetes (n=77)
The ARIC Study Wang, Folsom & Eckfeldt 2003	US	1987	10.7	3,594	Probability sample from US Centres	46	45 - 64	Prevalent CHD, stroke, missing Questionnaire, taking cholesterol-lowering medication, non-whites.

Supplementary Table 1.

Study Name	Diet Assessment Method	Identification of CHD Cases	CHD Endpoints			Results For:	Table or figure number for results
			CHD event	n of events	Event Rate (%)		
The Nurses Health Study Hu <i>et al.</i> 1999	FFQ - collected 1980, 1984	Medical records, hospital records, autopsy or death certificate MI defined s per WHO criteria (symptoms plus elevated cardiac enzymes or ECG changes) .	Fatal CHD	232	0.3	Relative Risk for Quintile 5 compared to Quintile 1 for SAFA intakes (including specific SAFAs).	Table S8
			Non-fatal CHD	597	0.8		
The Zutphen Elderly Study Oomen <i>et al.</i> 2001a & 2001b	corss-check Dietary History method (cross check with spouse)	Incident cases include fatal CAD plus nonfatal MI. Cause of death obtained from Statistics Netherlands, hospital discharge or GP records. Coded according to ICD codes 410-414. CAD as both primary and secondary cause of death were included. MI diagnosed as specific medical history, ECG changes or cardiac enzymes. Diagnosis confirmed with hospital discharge data.	Incident CAD	98	14.7	Relative Risk for Tertile 3 compared to Tertile 1 for linolenic and <i>trans</i> fat intakes and CHD events (fatal and nonfatal).	Tables S5 and S14
						Relative Risk for each 0.13% increase in energy from linolenic, and 2% increase in <i>trans</i> .	Tables S6 and S15
The Physicians Health Study (nested case-control) Albert <i>et al.</i> 2002	Blood Fatty Acid concentrations, collected at baseline	Sudden cardiac death ascertained from medical records. If cause of death not adequately documented, next-of-kin interviewed. Sudden death defined as death within one hour of onset of symptoms, or witnessed cardiac arrest or collapse within one hour after onset of symptoms, that resulted in death.	Sudden Cardiac Death	94 cases	NA	Comparison of mean wholeblood fatty acid concentrations (SAFA, MUFA, PUFA and <i>trans</i>), cases vs controls.	Tables S5, S7, S10 and S13
The Health & Lifestyle Survey Bonniface & Teft 2002	FFQ - collected at baseine	CHD death - not defined	CHD Death: Women	57	3.9	Death rates according to Quartiles of Total Fat, SAFA and PUFA intakes.	Tables S2, S7 and S13
			Men	98	8		
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	4-day estimated food record completed at baseline, and Cholesterol Ester Fatty Acids	CAD death ascertained from natioanl death register, and copies of death certificates (ICD codes 120-125). AMI, revascularization obtained from hospital and medical records.	CAD death	16	8.5	Relative Risk per 1 SD increment in Total Fat, SAFA, PUFA intake.	Tables S4, S9 and S15
			CAD death or AMI	34	8.5		
			Revascularization	38	9.5		
MONICA-I & MONICA-II Jakobsen <i>et al.</i> 2003	7-day weighed diet record completed at baseline (a subgroup did diet history)	Fatal and non-fatal CHD events defined according to ICD. Identified by flagging National Patient Registry. Review of medical files.	CHD events	326	8.8	Relative Risk per 5% energy increase in Total Fat, SAFA, MUFA, PUFA intake	Tables S4, S9, S12 and S15
The ARIC Study Wang, Folsom & Eckfeldt 2003	Plasma Fatty Acids collected at baseline	Incident CHD events ascertained by hospital records. MI determined from chest pain, medical history, hospital procedures, medications, complications, cardiac enzyme levels, ECG chnages. Non-hospitalised MI by clinic ECGs. CHD deaths from death certificates, confirmed with hospital records or family and physician questionnaires. CHD defined as death, definite, probably or silent MI or coronary artery revascularization.	CHD incident	282	7.9	Comparison of SAFA, MUFA and PUFA in Cholesterol Esters and Phospholipids of Incident CHD vs no CHD.	Tables S7, S10 and S13

Supplementary Table 1. Prospective Cohorts and Nested Case-Control Studies Investigating Dietary Fat (Total, Saturated, Monounsaturated, Polyunsaturated and *Trans* fats) and Coronary Heart Disease

Study Name	Country	Start of Study (year)	Follow-up (years)	<i>n</i>	Participants	Men (%)	Age at Baseline (years)	Exclusions
The Cardiovascular Health Study, Nested Case-Control Lemaitre <i>et al.</i> 2003	US	1989	9	5,201	Community based sample.		≥ 65 y	IHD and stroke at baseline, & use of fish oil supplements at baseline.
The Nurses Health Study Oh <i>et al.</i> 2005	US	1980	20	78,778	Nurses, no previous CHD	0	34 - 59	left > 10 items on questionnaires blank, implausible energy intakes, previous diagnosed cancer, angina, MI, stroke or other CVD, high serum cholesterol or diabetes
The Baltimore Longitudinal Study of Aging Tucker <i>et al.</i> 2005	US	1958	18	501	Not noted	100	34 - 80	Less than 4 completed days of diet record for more than 1 biennial visit, history angina or MI
The Nurses Health Study Albert <i>et al.</i> 2005	US	1980	18	76,763	Nurses, no previous CHD	0	34-59	left > 10 items on questionnaires blank, implausible energy intakes, previous diagnosed cancer, angina, MI, stroke or other CVD, high serum cholesterol or diabetes
The Health Professional's Follow-up Study Mozaffarian <i>et al.</i> 2006	US	1986	14	38,461	Health Professionals, no previous CHD	100	40 - 75	previous MI, angina, coronary artery surgery, stroke, TIA, Peripheral arterial disease, diabetes
The Strong Heart Study Xu <i>et al.</i> 2006	US	1989	7.2	2,938	American Indians	36	47 - 79	MI or CHD, implausible energy intakes, under dialysis treatment, kidney transplant or liver cirrhosis
The Nurses Health Study - nested case-control Sun <i>et al.</i> 2007	US	1980	6	32,826 blood samples collected	Nurses, no previous CHD	100	30 - 55	left > 10 items on questionnaires blank, implausible energy intakes, previous diagnosed cancer, angina, MI, stroke or other CVD, high serum cholesterol or diabetes

Supplementary Table 1.

Study Name	Diet Assessment Method	Identification of CHD Cases	CHD Endpoints			Table or figure number for results
			CHD event	n of events	Event Rate (%)	
The Cardiovascular Health Study, Nested Case-Control Lemaitre <i>et al.</i> 2003	Plasma Phospholipid fatty acid concentrations	MI diagnosis based on cardiac enzymes, chest pain & serial ECG changes. IHD deaths were fatal MI or other fatal CHD.	Fatal CHD	54		Comparison of RBC Linolenic and Linoleic acid concentrations between cases and controls Table S13
Nonfatal MI			125		Odds Ratios for 1SD increase in PL Linolenic and Linoleic fatty acid concentrations. Table S15	
The Nurses Health Study Oh <i>et al.</i> 2005	FFQ - collected 1980, 1984, 1986, 1990, 1994	Medical records, hospital records, autopsy or death certificate MI defined as symptoms plus elevated cardiac enzymes or ECG changes (WHO criteria). Fatal CHD ascertained from hospital records or autopsy, and CHD was the most plausible cause of death.	Incident CHD (non-fatal MI & fatal CHD)	1,766	2.2	Relative Risk for Quintile 5 compared to Quintile 1 for Total Fat, SAFA, MUFA, PUFA and <i>trans</i> fat intakes. Tables S3, S5, S8, S11, and S14
Relative Risk per Unit increases in SFA, MUFA, PUFA, and <i>trans</i> intake. Tables S6, S9, S12 and S15						
The Baltimore Longitudinal Study of Aging Tucker <i>et al.</i> 2005	7 day diet records during 4 time periods	Cause of death determined by using death certificates, hospital and physician records, autopsy data. CHD mortality includes deaths due to acute MI or sudden coronary death.	CHD death	71	14.2	Comparison of mean SAFA intakes for CHD deaths compared to Survivors Table S7
Hazard risk ratio per unit increment in SFA intake Table S9						
The Nurses Health Study Albert <i>et al.</i> 2005	FFQ - collected 1980, 1984, 1986, 1990, 1994, 1998	Medical records, hospital records, autopsy or death certificate MI defined as symptoms plus elevated cardiac enzymes or ECG changes (WHO criteria). Fatal CHD ascertained from hospital records or autopsy, and CHD was the most plausible cause of death. SCD classified if death occurs within 1 hour of onset of symptoms and autopsy findings consistent with ACD.	Sudden Cardiac Death	206	0.3	
Other CHD Deaths			641	0.8	Relative Risk for Quintile 4 compared to Quintile 1 for α -linolenic intake. Table S14	
Nonfatal MI			1,604	2.1		
The Health Professional's Follow-up Study Mozaffarian <i>et al.</i> 2006	FFQ, baseline and every 4 years	Events confirmed with medical records, necropsy reports, death certificates (plus confirmation from other sources). MI defined as per WHO criteria. Fatal CHD includes sudden death.	CHD Event	1,702	4.4	Relative risk per 2% increase in TFA intake Table 4
The Strong Heart Study Xu <i>et al.</i> 2006	24-h diet recall collected around 4 y after start of study	CHD events were first nonfatal or fatal CHD event, nonfatal events included definite MI, definite CHD, ECG-evident MI events. Medical records checked, and fatal CHD events confirmed by review committees.	CHD event	403	13.7	Comparison of mean intakes of Total Fat, <i>trans</i> fat, SAFA, MUFA and PUFA for CHD vs no CHD. Tables S2, S5, S7, S10 and S13
Nonfatal CHD			298	10.1	Relative Risk for Quintile 4 compared to Quintile 1, and for incremental change in fat intakes (for all fat fractions) Tables S3, S4, S6, S8, S9, S11, S12 and S14	
The Nurses Health Study - nested case-control Sun <i>et al.</i> 2007	Red blood cell fatty acids	Medical records, hospital records, autopsy or death certificate MI defined as symptoms plus elevated cardiac enzymes or ECG changes	cases (CHD event)	166		Comparison of RBC <i>trans</i> fatty acids for cases vs controls. Table S5
FFQ - collected 1990	Controls		327	Relative Risk for Quintile 4 compared to Quintile 1 for <i>trans</i> intake. Table S5		

Supplementary Table 1. Prospective Cohorts and Nested Case-Control Studies Investigating Dietary Fat (Total, Saturated, Monounsaturated, Polyunsaturated and *Trans* fats) and Coronary Heart Disease

Study Name	Country	Start of Study (year)	Follow-up (years)	<i>n</i>	Participants	Men (%)	Age at Baseline (years)	Exclusions
The ARIC Study Yamagishi <i>et al.</i> 2008	UK	1987	14.3	3,592	Probability sample from US Centres	46	45 - 64	History of CHD, stroke or heart failure at baseline, non-white participants, or those without plasma fatty acid data.
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2008	Denmark	1964, 1975, 1980, 1991	18	3,686	Selected from general population, no previous CHD	50	30-71 y	Inm plausible dietary assessment results, previous diagnosis CHD, diabetes
The Nurses Health Study - nested case-control Sun <i>et al.</i> 2008	US	1980	6	32,826 blood samples collected	Nurses, no previous CHD	100	30 - 55	left > 10 items on questionnaires blank, implausible energy intakes, previous diagnosed cancer, angina, MI, stroke or other CVD, high serum cholesterol or diabetes

Supplementary Table 1.

Study Name	Diet Assessment Method	Identification of CHD Cases	CHD Endpoints			Results For:	Table or figure number for results
			CHD event	n of events	Event Rate (%)		
The ARIC Study Yamagishi <i>et al.</i> 2008	Plasma fatty acid concentrations (CE & PL)	Heart failure defined by first HF hospitalization, ICD code 428 in any position, or any deaths where death certificate included ICD code 428 or 150. Non hospitalized, nonfatal HF not captured.	Incident Heart Failure	195	5.4	Hazard ratios for incident Heart failure and CE and PL SAFA, MUFA and PUFA, highest vs lowest quintiles.	Tables S8, S12 and S11
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2008	7-day weighed diet record completed at baseline (a subgroup did diet history)	Fatal and non-fatal CHD events defined according to ICD codes 410-414, and I20-I25 after 1994. Identified by flagging National Patient Registry. Review of medical files.	CHD events	374	10.1	Hazard Ratio for each 0.5 unit (grams or %TE) increase in ruminant <i>trans</i> fat intake.	Table S6
The Nurses Health Study - nested case-control Sun <i>et al.</i> 2008	Red blood cell fatty acids FFQ - collected 1990	Medical records, hospital records, autopsy or death certificate MI defined as symptoms plus elevated cardiac enzymes or ECG changes	Nonfatal MI Controls	146 288		Comparison of plasma and RBC linolenic acids for cases vs controls.	Table S13

Abbreviations: CHD, coronary heart disease; US, United States; UK, United Kingdom; IHD, ischemic heart disease; MI, myocardial infarction; ECG, Electrocardiogram; ICD, The International Statistical Classification of Diseases; SAFA, saturated fat; MUFA, monounsaturated fat; PUFA, polyunsaturated fat; PL, phospholipid; CE, cholesterol ester; TAG, triacylglyceride; FFQ, food frequency questionnaire; WHO, World Health Organisation; CAD, coronary artery disease; CVD, cardiovascular disease; TIA, transient ischemic attack; MCE, major coronary event; CABG, coronary artery bypass graft; PTCA, percutaneous transluminal coronary angioplasty; AMI, acute myocardial infarction; SCD, sudden cardiac death; HF, heart failure.

Supplementary Table 2.

Mean Total Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without.
Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean Total Fat intake	Endpoint		Comparison of mean intake		
				CHD Event	No CHD Event	p-value
Diet and Heart Morris <i>et al.</i> 1977	38 - 43%TE (Tertile 2)	CHD death (comparing incidence tertile 1 vs tertile 3)	<i>Tertile 1:</i> <i>Tertile 3:</i>	<i>n</i> =18 <i>n</i> = 17		ns
The Framingham Study Gordon <i>et al.</i> 1981	115g 39.1%TE	Total CHD MI or CHD Death Other CHD		112g (40.2%TE) 106g (40.0%TE) 119g (40.09%TE)	114g (38.8%TE)	ns ns ns
The Honolulu Heart Study Gordon <i>et al.</i> 1981; McGee <i>et al.</i> 1984	86.3g 33.4%TE	Total CHD MI or CHD Death Other CHD		86.4g (34.7%TE) 86.9g (35.29%TE) 85.2g (33.7%TE)	86.3 g (33.3%TE)	ns <0.01 (%TE) <0.01 (%TE)
The Puerto Rico Heart Health Program Garcia-Palmieri <i>et al.</i> 1980 Gordon <i>et al.</i> 1981	94 g 35.3%TE	Total CHD MI or CHD Death Other CHD		94g (36.6%TE) 92g (36.7%TE) 96g (36.4%TE)	86g (35.3%TE)	<0.01 (%TE) <0.05 (%TE) ns
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	around 38.5%TE	CHD death		39.4%TE	38.5%TE	0.12
Farchi <i>et al.</i> 1989	around 84g (27%TE)	CHD death		23.8g 8.0%TE	28.9g 9.0%TE	<0.01 <0.05
The Caerphilly Study Fehily <i>et al.</i> 1993	around 101.8g	Incident IHD		100.7g	102.8g	not provided
The Framingham Study Posner <i>et al.</i> 1991	118.4 g (39.7%TE) aged 45-55 y 109.3 g (38.3%TE) aged 56 - 65 y			<i>refer Supplementary Table 3 for results</i>		
The Seven Countries Study Kromhout <i>et al.</i> 1995	not provided	CHD death	<i>Correlation with total fat r=0.60 (p<0.05)</i>			
Esrey, Joseph & Grover 1996	around 92g (40%TE)	CHD Death	<i>age 30 - 59 y</i> <i>age 60 - 79 y</i>	90.26g (42.5%TE) 88.5 (38.0%TE)	98.9g (39.8%TE) 79.19g (38.0%TE)	ns ns
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Q3 - 72g			<i>refer Supplementary Table 3 for results</i>		
The AT/BC Study	Total TAG			<i>refer Supplementary Table 3 for results</i>		

Supplementary Table 2.

Mean Total Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without.
Results from the Prospective Cohort Studies.

Study Name	Author, year published	Mean Total Fat intake	Endpoint	Comparison of mean intake		
				CHD Event	No CHD Event	p-value
	Pietnen <i>et al.</i> 1997	Q3- 102.4g				
	The Nurses Health Study Hu <i>et al.</i> 1997	Q3 - 37.1%TE		<i>refer Supplementary Table 3 for results</i>		
	The Health & Lifestyle Survey Bonniface & Teft 2002	men - 734 g/w women - 523 g/w	CHD Death Rate (DR)	<i>Women</i> 1.40%	5.20%	0.0025
				<i>Men</i> 6.60%	8.20%	0.1928
	The EUROASPIRE Study Erkkila <i>et al.</i> 2003	33%TE		<i>refer Supplementary Table 4 for results</i>		
	MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003	50th percentile women: 46.0%TE men: 46.9%TE		<i>refer Supplementary Table 4 for results</i>		
	The Nurses Health Study Oh <i>et al.</i> 2005	29%TE		<i>refer Supplementary Table 3 for results</i>		
	The Strong Heart Study Xu <i>et al.</i> 2006	around 72g (35.2%TE)	CHD death	47 - 59 y 60 - 79 y	80.6g (36.9%TE) 64.4g (33.9%TE)	77.2g (35.8%TE) 65.6g (34.1%TE)
						ns ns

Abbreviations: CHD, coronary heart disease; MI, myocardial infarction; IHD, ischemic heart disease; TE, total energy; PUFA, polyunsaturated fat; ns, not significant; EPA, eicosapentanoic; DHA, docosahexaenoic; PL, phospholipid; CE, cholesterol ester; g, grams; DR, death rate; Q3, quintile 3; TAG, triacylglycerol.

Supplementary Table 3. Relative Risks of Coronary Heart Disease and Total Fat, Comparing Highest Total Fat Intakes to Lowest Intakes.

Study Name	Intakes for Relative Risk				Age-adjusted results (Reference intake is the lowest intake)			
	Author, year published	Endpoint	Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend
The Framingham Study	<i>grams</i>	<i>45-55y</i>	90g	118.0g	1.00	0.87	0.14	
	%TE		(30%TE) NCEP Recommendations	(39.7%TE) Sample mean for age group	0.75	0.59	0.95	
Posner et al. 1991	<i>grams</i>	<i>56-65y</i>	90g	109.3g	1.05	0.95	1.15	
	%TE		(30%TE) NCEP Recommendations	(38.3%TE) Sample mean for age group	0.99	0.83	1.18	
The Caerphilly Study Fehily et al. 1993	Incident IHD		<34.1%TE	>45.8%TE	<i>no age-adjusted results - refer page 2</i>			
The Health Professionals Follow-up Study Ascherio et al. 1996	Total MI		24%TE	39%TE	1.43	1.13	1.81	0.001
	Fatal CHD				1.83	1.19	2.80	0.001
The AT/BC Study Pietnen et al. 1997	Major coronary event		83.2g	121.6g	1.05	0.89	1.29	0.303
	coronary death				0.97	0.76	1.24	0.894
The Nurses Health Study Hu et al. 1997	Incident CHD	<i>Total TAG</i>	29.1%TE	46.1%TE	1.30	1.07	1.58	0.02
The Nurses Health Study Oh et al. 2005	Incident CHD		28.3%TE	44.0%TE	1.26	1.07	1.47	0.001
The Strong Heart Study Xu et al. 2006	CHD death	<i>47 - 59 y</i>	24.8%TE	46.6%TE	<i>no age-adjusted results - refer page 2</i>			
	CHD death	<i>60 - 79 y</i>	23.0%TE	44.7%TE				
	CHD event	<i>whole cohort</i>	24.0%TE	45.9%TE				
	Nonfatal CHD	<i>whole cohort</i>						

Supplementary Table 3.

Study Name		Multivariate Results 1 (Reference Intake is the lowest intake)					Multivariate Results 2 (Reference intake is the lowest intake)					
Author, year published	Endpoint		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:
The Framingham Study Posner et al. 1991	CHD Death	grams 45-55y	0.76	0.60	0.96		Energy adjusted	0.74	0.58	0.94		
		%TE	0.74	0.58	0.93			0.71	0.56	0.9		energy intake, physical activity, serum cholesterol, systolic blood pressure, left ventricular hypertrophy, smoking, glucose intolerance, Metropolitan relative weight
		grams 56-65y	0.99	0.86	1.14			0.99	0.85	1.15		
		%TE	0.98	0.83	1.17	1.17		1.00	0.83	1.19		
The Caerphilly Study Fehily et al. 1993	Incident IHD		1.3				age, BMI, smoking					
The Health Professionals Follow-up Study Ascherio et al. 1996	Total MI		1.23	0.96	1.57	0.06	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, history high blood cholesterol, alcohol and profession	1.02	0.78	1.34	0.42	Further adjusted for fibre
	Fatal CHD		1.59	1.01	2.51	0.02		1.22	0.75	2.00	0.31	
The AT/BC Study Pietnen et al. 1997	Major coronary event		0.87	0.73	1.05	0.295	(age-adjusted results also adjusted for treatment group) smoking, BMI, blood pressure, intakes of energy, alcohol and fiber, education and physical activity					
	coronary death		0.85	0.65	1.12	0.35						
The Nurses Health Study Hu et al. 1997	Incident CHD		1.04	0.83	1.28	0.5	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, time period, menopausal status and hormone use, multivitamin use, vitamin E supplement use, alcohol intake, energy from protein, dietary cholesterol					
The Nurses Health Study Oh et al. 2005	Incident CHD		0.92	0.77	1.09	0.49	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol.					
The Strong Heart Study Xu et al. 2006	CHD death	47 - 59 y	3.57	1.21	10.49	0.01	gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, alcohol consumption, hypertension, protein and total energy intake					
	CHD death	60 - 79 y	0.77	0.41	1.45	0.24						
	CHD event	whole cohort	1.03	0.77	1.4	0.97						
	Nonfatal CHD	whole cohort	1.12	0.79	1.59	0.71						

Abbreviations: CHD, coronary heart disease; IHD, Ischemic Heart Disease; MI, myocardial infarction; y, years; g, grams; CI, confidence interval; TE, total energy intake; NCEP, The National Cholesterol Education Project; Recc, recommendation; HR, hazard ratio; BMI, Body Mass Index; HDL, HDL-cholesterol; LDL, LDL-cholesterol; TAG, triacylglycerol.

Supplementary Table 4. Relative Risks of Coronary Heart disease and Incremental Change in Total Fat Intake

Study Name	Author, year published	Endpoint	Amount of Energy Increase	Effect of increasing total fat intake				adjusted for:
				RR	lower 95%CI	upper 95%CI	p-value	
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996		Total MI	5% energy Increase	1.01	0.94	1.08	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, history high blood cholesterol, fibre, alcohol, history high blood cholesterol, profession	
		Fatal CHD	5% energy Increase	1.08	0.95	1.22		
Esry, Joseph & Grover 1996		CHD Death	one unit increase	<i>age 30 - 59 y</i>	1.04	1.01	1.08	age, gender, energy intake, serum lipids, systolic blood pressure, smoking, BMI, glucose intolerance
			one unit increase	<i>age 60 - 79 y</i>	0.99	0.95	1.03	
The Nurses Health Study Hu <i>et al.</i> 1997		Incident CHD	5% energy Increase	1.02	0.97	1.07	0.32	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.
The Health & Lifestyle Survey Bonniface & Teft 2002		CHD Death Rate (DR)	100g/week increase	<i>Women</i>	1.19	1.03	1.37	age, alcohol consumption, smoking, exercise and social class.
			100g/week increase	<i>Men</i>	1.01	0.93	1.10	
The EUROASPIRE Study Erkkila <i>et al.</i> 2003		CAD death	1 standard deviation increase	1.03	0.63	1.7	0.902	age, gender, diagnostic category, energy intake, serum cholesterol TAG, diabetes, BMI, education
		CAD death or AMI	1 standard deviation increase	1.05	0.73	1.52	0.799	
		Revascularization	1 standard deviation increase	1.31	0.94	1.13	0.113	
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003		CHD Event	5% energy Increase	<i>women</i>	1.12	0.93	1.36	Total energy intake, cohort identification, protein, types of fatty acids familial history MI, smoking, physical activity, education, alcohol, fiber, dietary cholesterol, systolic blood pressure, BMI.
				<i>men</i>	0.98	0.87	1.10	
				<i>women < 60y</i>	1.74	1.15	2.64	
				<i>men < 60y</i>	1.15	0.93	1.41	
				<i>women > 60y</i>	1.05	0.86	1.28	
The Nurses Health Study Oh <i>et al.</i> 2005		CHD Event	4% energy increase	<i>men > 60y</i>	0.93	0.81	1.06	Age, BMI, smoking, alcohol, parental history MI, history hypertension, menopausal status & hormone use, physical activity, energy, protein, cholesterol intake.
					0.94	0.81	1.08	
The Strong Heart Study Xu <i>et al.</i> 2006		CHD death	5% energy Increase	<i>47 - 59 y</i>	1.28	1.08	1.52	gender, age, study center, diabetes, BMI, HDL, LDL, TAG, smoking alcohol consumption, hypertension, percentage energy from protein, and total energy intake
			5% energy Increase	<i>60 - 79 y</i>	0.91	0.81	1.02	

Abbreviations: CHD, coronary heart disease; MI, myocardial infarction; DR, death rate; AMI, acute myocardial infarction; CAD, coronary artery disease; %E, percent energy intake; RR, relative risk; CI, confidence interval; BMI, body mass index; MUFA, monounsaturated fat; PUFA, polyunsaturated fat; TAG, triacylglycerol; HDL, HDL-cholesterol; LDL, LDL-cholesterol.

Supplementary Table 5. Relative Risks of Coronary Heart Disease and *Trans* Fat Comparing Highest Intakes to Lowest Intakes, and Comparing Mean Intakes of Participants with a CHD Event and Those Without. Results from the Prospective Cohort Studies

Study Name	Mean <i>trans</i> Fat intake	Endpoint	Comparison of mean intake (or concentration)			Intakes (or concentrations) for Relative Risk		Age-adjusted results (Reference intake is the lowest intake)					
			CHD (or case)	No CHD (or controls)	p-value	Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend		
The Nurses Health Study Willett <i>et al.</i> 1993 <i>(subgroup - women who have not changed margarine intake in previous 10 years)</i>	4.0 g (2.2%TE)	Incident CHD	<i>total trans (whole cohort)</i> <i>total trans (subgroup)</i> <i>from vegetable fats (subgroup)</i> <i>from animal fats (subgroup)</i>	NR	NR		2.4g (1.3%TE)	5.7g (3.2%TE)	1.50	1.12	2.00	0.001	
The Seven Countries Study Kromhout <i>et al.</i> 1995	0.05%TE to 1.84%TE	CHD death	<i>correlation C18:1 trans and CHD</i> <i>r = 0.78 (p<0.001)</i>										
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Q3 - 1.3%TE	Total MI		NR	NR		1.5g (0.8%TE)	4.3g (1.6%TE)	1.57	1.24	1.98	0.0002	
		Fatal CHD							1.99	1.27	3.12	0.005	
	Q3 - 2.0%TE	Major coronary event	<i>total trans</i>				1.3g	6.2g	1.19	1	1.41	0.055	
The AT/BC Study Pietnen <i>et al.</i> 1997		coronary death	<i>Total trans</i>				1.3g	6.2g	1.38	1.08	1.76	0.006	
		coronary death	<i>Elaidic acid</i>	NR	NR		1.3g	5.6g	1.35	1.06	1.73	0.004	
		coronary death	<i>vegetable trans</i>				0.1g	5.1g	1.15	0.91	1.44	0.009	
		coronary death	<i>animal trans</i>				0.6g	2.5g	1.03	0.80	1.31	0.857	
The Nurses Health Study Hu <i>et al.</i> 1997	2.2%TE	Incident CHD		NR	NR		1.3%TE	2.9%TE	1.34	1.09	1.64	0.002	
The Zutphen Elderly Study Oomen <i>et al.</i> 2001	1985: 10.9g (4.3%TE) 1995: 4.4g (1.9%TE)	CHD event	<i>total trans</i>				2.36%TE	6.38%TE	2.03	1.24	3.34	0.003	
The Physicians Health Study (nested case-control) Albert <i>et al.</i> 2002	Total Trans Fatty acids 1.78% total fatty acids	Sudden Cardiac Death (wholeblood fatty acid concentrations))	<i>total trans (% of total fatty acids)</i> <i>18:1 trans isomers (% of total fatty acids)</i> <i>18:2 trans isomers (% of total fatty acids)</i>	1.77%	1.79%	0.55							
				1.17%	1.18%	0.67							
				41.00%	41.00%	0.17							

Supplementary Table 5.

Study Name	Endpoint	Multivariate Results 1 (Reference Intake is the lowest intake)				Multivariate Results 2 (Reference intake is the lowest intake)						
		RR	Lower 95%CI	Upper 95%CI	p-trend	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:		
The Nurses Health Study Willett <i>et al.</i> 1993 (subgroup - women who have not changed margarine intake in previous 10 years)	Incident CHD	<i>total trans (whole cohort)</i>	1.35	1.00	1.82	0.009						
		<i>total trans (subgroup)</i>					1.67	1.05	2.66	0.002	Further adjusted for SAFA, MUFA alpha-linolenic intake	
		<i>from vegetable fats (subgroup)</i>					1.78	1.12	2.83	0.009		
		<i>from animal fats (subgroup)</i>					0.59	0.3	1.17	0.23		
The Seven Countries Study Kromhout <i>et al.</i> 1995	CHD death											
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Total MI		1.40	1.10	1.70	0.01	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, history high blood cholesterol profession	1.21	0.93	1.58	0.20	further adjusted for fibre
	Fatal CHD		1.78	1.11	2.84	0.04		1.41	0.86	2.32	0.42	
The AT/BC Study Pietnen <i>et al.</i> 1997	Major coronary event	<i>total trans</i>	1.14	0.96	1.14	0.158						
	coronary death	<i>Total trans</i>	1.39	1.09	1.78	0.00	(age-adjusted results also adjusted for treatment group) smoking, BMI, blood pressure, intakes of energy, alcohol and fiber, education and physical activity					
	coronary death	<i>Elaidic acid</i>	1.37	1.07	1.75	0.00						
	coronary death	<i>vegetable trans</i>	1.23	0.97	1.55	0.00						
coronary death	<i>animal trans</i>	0.83	0.62	1.11	0.04							
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD		1.27	1.03	1.56	0.02	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, time period, menopausal status and hormone use, multivitamin use, vitamin E supplement use, alcohol intake, energy from protein, dietary cholesterol	1.53	1.16	2.02	0.002	Further adjusted for SFA, MUFA PUFA
The Zutphen Elderly Study Oomen <i>et al.</i> 2001	CHD event	<i>total trans</i>	2.19	1.32	3.62	0.002	age and energy adjusted	2.00	1.26	3.75	0.03	further adjusted for smoking alcohol intake, vitamin supplement use, SFA, PUFA, MUFA, cholesterol and fibre intake.
The Physicians Health Study (nested case-control) Albert <i>et al.</i> 2002	Sudden Cardiac Death (wholeblood fatty acid concentrations))	<i>total trans (% of total fatty acids)</i>										
		<i>18:1 trans isomers (% of total fatty acids)</i>										
		<i>18:2 trans isomers (% of total fatty acids)</i>										

Supplementary Table 5. Relative Risks of Coronary Heart Disease and *Trans* Fat Comparing Highest Intakes to Lowest Intakes, and Comparing Mean Intakes of Participants with a CHD Event and Those Without. Results from the Prospective Cohort Studies

Study Name	Mean <i>trans</i> Fat intake	Endpoint	Comparison of mean intake (or concentration)			Intakes (or concentrations) for Relative Risk		Age-adjusted results (Reference intake is the lowest intake)				
			CHD (or case)	No CHD (or controls)	p-value	Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
The Nurses Health Study Oh <i>et al.</i> 2005	Q3 - 1.9%TE	Incident CHD	<i>whole cohort</i>	NR	NR		1.3%TE	2.8%TE	1.39	1.19	1.63	<0.0001
		Incident CHD	<i>age < 65 y</i>	NR	NR		NR	NR				
		Incident CHD	<i>age > 65y</i>	NR	NR		NR	NR				
		Incident CHD	<i>BMI < 25</i>	NR	NR		NR	NR				
		Incident CHD	<i>BMI >25</i>	NR	NR		NR	NR				
The Strong Heart Study Xu <i>et al.</i> 2006	around 4.9g (2.4%TE)	CHD event	<i>whole cohort</i>	NR	NR		0.9%TE	3.9%TE				
		Nonfatal CHD	<i>whole cohort</i>									
		CHD death	<i>47 - 59 y</i>	5.1g (2.4%TE)	5.3g (2.3%TE)	ns						
		CHD Death	<i>60 - 79 y</i>	4.6g (2.4%TE)	4.6g (2.5%TE)	ns						
The Nurses Health Study - nested case-control Sun <i>et al.</i> 2007	1.72 % total fatty acids 3.0 %TE	Incident CHD	<i>Dietary trans intake</i>	3.1 g/d	3.0 g/d	0.53						
			<i>RBC -total trans</i>	1.78%	1.66%	<0.01	1.17%	2.23%	2.7	1.5	5.0	<0.01
			<i>t16:1n-7</i>	0.13%	0.14%	0.53						
			<i>t18:1n-12</i>	0.33%	0.30%	<0.001						
			<i>t18:1n-9</i>	0.52%	0.48%	<0.01						
			<i>t18:1n-7</i>	0.40%	0.38%	0.05						
			<i>total trans 18:1 isomers</i>	1.25%	1.16%	<0.01	0.77%	1.62%	2.4	1.4	4.3	<0.01
			<i>9t 12t 18:-2n-6</i>	0.13%	0.12%	0.05						
			<i>9t 12c 18:-2n-6</i>	0.15%	0.14%	<0.01						
			<i>9t 12c 18:-2n-6</i>	0.10%	0.10%	0.22						
<i>total 18:2 trans isomers</i>	0.38%	0.36%	0.02	0.25%	0.50%	2.2	1.2	4.1	<0.01			

Supplementary Table 5.

Study Name			Multivariate Results 1 (Reference Intake is the lowest intake)				Multivariate Results 2 (Reference intake is the lowest intake)				
			RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend
The Nurses Health Study Oh <i>et al.</i> 2005	Incident CHD	<i>whole cohort</i>	1.33	1.07	1.66	0.01					
	Incident CHD	<i>age < 65 y</i>	1.5	1.13	2	0.01	Age, BMI, smoking, alcohol intake, parental history MI				
	Incident CHD	<i>age > 65y</i>	1.15	0.8	1.66	0.49	history hypertension, menopausal status and hormone use				
	Incident CHD	<i>BMI < 25</i>	1.53	1.09	2.15	0.02	aspirin use, multivitamin and vitamin E use, physical activity				
	Incident CHD	<i>BMI >25</i>	1.19	0.88	1.6	0.29	energy, protein, cholesterol intake (not clear if adjusted for other fats)				
The Strong Heart Study Xu <i>et al.</i> 2006	CHD event	<i>whole cohort</i>	1.06	0.78	1.44	0.88					
	Nonfatal CHD	<i>whole cohort</i>	1.21	0.85	1.74	0.41	gender, age, study centre, diabetes, BMI, HDL, LDL, TAG,				
	CHD death	<i>47 - 59 y</i>	1.15	0.49	2.68	0.66	smoking, alcohol consumption, hypertension, protein and total energy intake				
	CHD Death	<i>60 - 79 y</i>	0.83	0.42	1.66	0.54					
The Nurses Health Study - nested case-control Sun <i>et al.</i> 2007		<i>Dietary trans intake</i>									
		<i>RBC -total trans</i>	2.7	1.3	5.6	<0.01		3.3	1.5	7.2	<0.01
		<i>t16:1n-7</i>									
		<i>t18:1n-12</i>									
	Incident CHD	<i>t18:1n-9</i>					Matching factors: age at blood draw, smoking, fasting status, time of blood draw				as per MV1 plus long chain n-3,
		<i>t18:1n-7</i>					BMI, postmenopausal status and hormone use, physical				total n-6, in red blood cells
		<i>total trans 18:1 isomers</i>	2.5	1.2	5	<0.01	activity, alcohol intake, parental history MI, history hypertension, hypercholesterolemia, diabetes.	3.1	1.5	6.7	<0.01
	<i>9t 12t 18:-2n-6</i>										
	<i>9t 12c 18:-2n-6</i>										
	<i>9t 12c 18:-2n-6</i>										
	<i>total 18:2 trans isomers</i>	2.2	1	4.8	0.03		2.8	1.2	6.3	<0.01	

Abbreviations: CHD, coronary heart disease; MI, myocardial infarction; NR, not recorded; Q3, qunitile 3; TE, total energy; g, grams; RR, relative risk; CI, confidence interval; BMI, body mass index; HDL, HDL-cholesterol; LDL, LDL-cholesterol; TAG, triacylglycerol.

Supplementary Table 6. Relative Risks of Coronary Heart Disease and Incremental Change in *Trans* Fat Intake

Study Name	Author, year published	Endpoint	Type of <i>trans</i> fat	Amount of Energy Increase	Effect of increasing <i>trans</i> intake			adjusted for:	
					RR	lower 95%CI	upper 95%CI		
	The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD	<i>total trans</i>	Each 2%E increase	1.62	1.23	2.13	<0.001	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, time period, menopausal status and hormone use, multivitamin use, vitamin E supplement use, alcohol intake, energy from protein, dietary cholesterol
	The Nurses Health Study Oh <i>et al.</i> 2005	Incident CHD	<i>total trans</i>	Each 2%E increase	1.33	1.07	1.66	0.01	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.
	The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996; Mozaffarian <i>et al.</i> 2006	Total MI CHD Event (14 y update)	<i>total trans</i>	For each 2%E increase	1.13 1.26	0.70 0.98	1.5 1.62	ns ns	Age, BMI, smoking, physical activity, history of hypertension or high blood cholesterol, family history MI before age 60, energy intake, profession, fibre, total fat
	The AT/BC Study Pietnen <i>et al.</i> 1997	Major coronary event	<i>total trans</i>		1.14	0.98	1.3		calculated by Oomen <i>et al.</i> 2001
	The Zutphen Elderly Study Oomen <i>et al.</i> 2001	CHD event Fatal CHD CHD event CHD event CHD event	<i>total trans</i> <i>ruminant trans</i> <i>manufactured C18:1 trans</i> <i>other manufactured trans</i>	Each 2%E increase Each 2%E increase Each 0.5%E increase Each 0.5%E increase Each 0.5%E increase	1.28 1.33 1.17 1.05 1.07	1.01 0.96 0.69 0.94 0.99	1.61 1.86 1.98 1.07 1.15		age, energy, smoking alcohol intake, vitamin supplement use, SFA, profession, fibre, total fat PUFA, MUFA, cholesterol and fibre intake.
	The Strong Heart Study Xu <i>et al.</i> 2006	CHD death	<i>47 - 59 y</i> <i>60 - 79 y</i>	Increase of 5%TE Increase of 5%TE	1.73 1.34	0.57 0.48	5.25 2.46		gender, age, study center, diabetes, BMI, HDL, LDL, TAG, smoking alcohol consumption, hypertension, percentage energy from protein, and total energy intake
	MONICA I & II Jakobsen <i>et al.</i> 2008	CHD Event	<i>whole cohort</i> <i>whole cohort</i>	Increase of 0.5g ruminant trans Increase of 0.5%TE ruminant trans	0.98 1.05	0.92 0.92	1.05 1.19		Gender, systolic blood pressure, family history MI, education, smoking, BMI, physical activity alcohol, protein, SFA, MUFA, PUFA, fiber, cholesterol intakes, and weighted intake of foods containing high amounts of industrially produced trans fats.

Abbreviations: CHD, coronary heart disease; MI, myocardial infarction; %E, percent of energy; RR, relative risk; CI, confidence interval; BMI, body mass index; MUFA, monounsaturated fat; PUFA, polyunsaturated fat; ALA, alpha-linolenic fatty acid; SFA, saturated fat; HDL, HDL-cholesterol; LDL, LDL-cholesterol; TAG, triacylglycerol.

Supplementary Table 7.

Mean Saturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean SAFA Intake (or concentration)	Endpoint	Comparison of mean intake				
			CHD Event	No CHD Event	p-value		
The Western Electric Study Paul <i>et al.</i> 1963	59g	CHD Event	59g	59g	ns		
Diet and Heart Morris <i>et al.</i> 1977	12-18%TE from animal fat (second tertile) 11-17%TE from dairy fat (second tertile)	CHD Event	number of events in tertile 1 vs tertile 3	<i>T1 = 18</i> <i>T2 = 14</i>	ns		
			number of events in tertile 1 vs tertile 3	<i>T1 = 13</i> <i>T2 = 18</i>			
The Western Electric Study Shekelle <i>et al.</i> 1981	16.7%TE	CHD Death	Logistic Regression Coefficient	<i>0.031</i> <i>p=0.131</i>	NR	NR	
The Honolulu Heart Study Gordon <i>et al.</i> 1981; McGee <i>et al.</i> 1984	32g 12.3%TE	Total CHD MI or CHD Death Other CHD		32g (12.7%TE) 31g (12.9%TE) 31g (12.2%TE)	32 g (12.3%TE)	ns <0.05 for %TE ns	
The Framingham Study Gordon <i>et al.</i> 1981	44g	Total CHD		43g (15.3%TE)	44g (14.9%TE)	ns	
	15.1%TE	MI or CHD Death		39g (14.8%TE)		ns	
		Other CHD		47g (15.9%TE)		ns	
The Puerto Rico Heart Health Program Garcia-Palmieri <i>et al.</i> 1980 Gordon <i>et al.</i> 1981	35 g	Total CHD		35g (13.5%TE)	36g (13.3%TE)	ns	
	13.2%TE	MI or CHD Death		33g (13.4%TE)		ns	
		Other CHD		36g (13.6%TE)		ns	
Miettinen <i>et al.</i> (nested case-control) 1982	Serum lipids	CHD Event	Serum Lipids, % of total fatty acids up to 18:3	<i>TAG 14:0</i> <i>PL 16:0</i> <i>PL 18:0</i>	1.76%FA 36.54%FA 20.04%FA	2.29%FA 35.17%FA 19.3%FA	<0.05 <0.05 <0.05 (other serum lipid fractions not significantly different)

Supplementary Table 7.

Mean Saturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean SAFA Intake (or concentration)	Endpoint	Comparison of mean intake			
			CHD Event	No CHD Event	p-value	
The Zutphen Study Kromhout & de Lezenne Coulander 1984	57g 18%TE	CHD Death	17.7%TE 54.6g	17.6%TE 59.8g	0.82 0.094	
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	17.5%TE	CHD Death	17.4%TE	16.9%TE	0.12	
Salonen <i>et al.</i> (nested case-control) 1985	not measured	CHD Death	<i>Serum fatty acid concentration, mg/L</i> SAFA	1,026 mg/L 945 mg/L	<0.05 <i>parital coefficient = 0.00197, p<0.05</i>	
Farchi <i>et al.</i> 1989	around 26.5g 8.5%TE	CHD Death	23.8g (8.0%TE)	28.9g (9.0%TE)	<0.05	
The Framingham Study Posner <i>et al.</i> 1991	45.3 g (15.2%TE) aged 45-55 y 42.3 g (14.8%TE) aged 56 - 65 y		<i>refer Supplementary Table 8 for results</i>			
The Caerphilly Study Fehily <i>et al.</i> 1993	74g animal fat	IHD Event	72.1g	76.1g	ns	
Goldbourt, Yaari & Medalie 1993	not noted	CHD Mortality	<i>event rate / 10,000 person years</i> SFA by grams SFA by %TE	Q1 - 61 Q5 - 49 Q1 - 48 Q5 - 58		
The Seven Countries Study Kromhout <i>et al.</i> 1995	10.1 - 88.6g 3.8 - 22.7%TE	CHD Death	<i>Correlation</i> <i>r=0.88</i> <i>(p<0.01)</i>			
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Q3 - 24.8 g/day 10.9%TE		<i>refer Supplementary Table 8 for results</i>			
Esrey, Joseph & Grover 1996	around 35g (15%TE)	CHD Death	<i>age 30 - 59 y</i> <i>age 60 - 79 y</i>	40.8g (16.8%TE) 32.7 (13.8%TE)	37.7g (15.1%TE) 29.9g (14.3%TE)	
Ohrvall <i>et al.</i> 1996	Serum Lipids	CHD	Serum Lipids, % of total fatty acids	<i>Myristic</i> <i>Palmitic</i> <i>Stearic</i>	1.19%FA 1.13%FA 11.94%FA 11.65%FA 1.2%FA 1.15%FA	0.0065 0.0006 0.0755
The AT/BC Study Pietnen <i>et al.</i> 1997	Q3 - 50.3 g		<i>refer Supplementary Table 8 for results</i>			

Supplementary Table 7. Mean Saturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean SAFA Intake (or concentration)	Endpoint	Comparison of mean intake			
			CHD Event	No CHD Event	p-value	
Mann <i>et al.</i> 1997	women: 26.3g/d men: 27.4 g/d	CHD Death	Standardized death Rate (reference intake is tertile 1)	T1 - 100 T3 - 277 (95%CI 125-613)	<0.01	
<i>refer Supplementary Table 8 for results</i>						
The Nurses Health Study Hu <i>et al.</i> 1997	15.6 %TE (intakes are the cumulative updated averages)					
The Physicians Health Study (nested case-control) Albert <i>et al.</i> 2002	Total SFA 19.6% total fatty acids	Sudden Cardiac Death	<i>Serum Lipids, % of total fatty acids</i>	<i>total SFA</i> 31.60% <i>Palmitic</i> 19.20% <i>Stearic</i> 10.60%	31.30% 18.80% 10.60%	0.21 0.16 0.75
The Health & Lifestyle Survey Bonniface & Teft 2002	men - 329 g/w women - 241 g/w	CHD Death Rate	<i>Women</i> <i>Men</i>	Q1 - 2.4% Q5 - 5.8% Q1 - 7.4% Q5 - 8.2%	0.0018 0.4706	
<i>refer Supplementary Table 9 for results</i>						
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003	women: 19.5%TE men: 19.7%TE					

Supplementary Table 7. Mean Saturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean SAFA Intake (or concentration)	Endpoint	Comparison of mean intake			
			CHD Event	No CHD Event	p-value	
The ARIC Study Wang, Folsom & Eckfeldt 2003	Serum Lipids	Incident CHD	<i>CE SFA</i>	11.90%	11.60%	<0.05
			<i>CE Palmitic</i>	10.2	10.00%	<0.05
			<i>CE Stearic</i>	0.96%	0.89%	<0.05
			<i>PL SFA</i>	40.9%	40.60%	<0.05
			<i>PL Palmitic</i>	25.5%	25.40%	ns
			<i>PL Stearic</i>	13.5%	13.30%	<0.05
The Nurses Health Study Oh <i>et al.</i> 2005	9.4%TE at 1998		<i>refer Supplementary Table 8 for results</i>			
The Baltimore Longitudinal Study of Aging Tucker <i>et al.</i> 2005	around 13%TE	CHD death	13.8%TE	12.3%TE	<0.05	
The Strong Heart Study Xu <i>et al.</i> 2006	11.9%TE	CHD death	47 - 59 y	27.7 g (12.6%TE)	26.1 g (12.1%TE)	ns
			60 - 79 y	21.9g (11.5%TE)	2.4g (11.6%TE)	ns
The ARIC Study Yamagishi <i>et al.</i> 2008	Serum Lipids (Hazard Ratio)		<i>refer Supplementary Table 8 for results</i>			

Abbreviations CHD, coronary heart disease; SFA, saturated fat; MI, myocardial infarction; TE, total energy; TAG, triacylglycerol; PL, phospholipid; CE, cholesterol ester; Q1, Quintile 1; Q3, Quintile 3; Q5, Quintile 5; T1, Tertile 1; T3, Tertile 3; g/w, grams per week.

Supplementary Table 8. Relative Risks of Coronary Heart Disease and Saturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name	Endpoint		Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)				
			Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
The Western Electric Study Shekelle <i>et al.</i> 1981	CHD Death	RR calculated from logistic regression	NR	NR	1.03 (p=0.144)				
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	CHD Death	RR calculated from logistic regression	NR	NR	1.07 (p=0.05)				
The Framingham Study Posner <i>et al.</i> 1991	CHD Death		45-55y - grams	30g	45.3g	0.81	0.64	1.03	
			lowest intake: NECP Recommendations	%TE	(10%TE) NCEP Recommendations	(15.2%TE) Sample mean for age group	0.79	0.63	1.00
			Highest intake: sample mean intake	56-65y - grams	30g	42.3g	1.01	0.84	1.22
				%TE	(10%TE) NCEP Recommendations	(14.8%TE) Sample mean for age group	1.02	0.83	1.26
The Caerphilly Study Fehily <i>et al.</i> 1993	Incident IHD		animal fat	≤ 22.3%TE	≥ 36.2%TE	no age-adjusted results, refer page 2			
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Total MI			7.2%TE	14.8%TE	1.44	1.14	1.81	0.002
	Fatal CHD					2.55	1.65	3.95	<0.0001
The AT/BC Study Pietnen <i>et al.</i> 1997	MACE	Total SFA		34.7 g	67.5g	0.99	0.84	1.16	0.672
	coronary death	Total SFA				0.83	0.66	1.06	0.329
	CHD Event	C ₁₂ - C ₁₆ SFA		21.7 g	42.2 g	1.01	0.86	1.18	0.644
	Coronary death	C ₁₂ - C ₁₆ SFA				0.85	0.67	1.08	0.349
Mann <i>et al.</i> 1997	IHD Death			Tertile 1	Tertile 3	2.77	1.25	6.13	<0.01
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD			10.7%TE	18.8%TE	1.38	1.13	1.68	<0.001

Supplementary Table 8.

Study Name	Endpoint	Multivariate Results 1 (Lowest intake is comparison group)					Multivariate Results 2 (Lowest Intake is Comparison Group)					
		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	
The Western Electric Study Shekelle <i>et al.</i> 1981	CHD Death											
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	CHD Death											
The Framingham Study Posner <i>et al.</i> 1991	CHD Death	<i>45-55y grams</i>	0.82	0.64	1.04		Energy intake, physical activity, serum cholesterol, systolic blood pressure, left ventricular hypertrophy, smoking, glucose intolerance, Metropolitan Life Insurance Company relative weight.					
		<i>lowest intake: NECP Recommendations</i>	%TE	0.78	0.61	1.00						
		<i>Highest intake: sample mean intake</i>	<i>56-65y grams</i>	1.04	0.86	1.26						
		%TE	1.06	0.86	1.30							
The Caerphilly Study Fehily <i>et al.</i> 1993	Incident IHD	<i>animal fat</i>	0.9			ns	Age, BMI, smoking, evidence IHD at baseline					
		<i>OR</i>										
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Total MI		1.22	0.96	1.56	0.14	(age-adjusted results also adjusted for treatment group) smoking, BMI, blood pressure, intakes of energy, alcohol and fiber, education and physical activity	0.96	0.73	1.27	0.69	as per MV1 plus fibre
	Fatal CHD		2.21	1.38	3.54	0.0016		1.72	1.01	2.9	0.09	
The AT/BC Study Pietnen <i>et al.</i> 1997	MACE	<i>Total SFA</i>	0.87	0.73	1.03	0.189		NR	NR	NR	NR	as per MV1 plus <i>trans</i> , MUFA, linoleic acid
	coronary death	<i>Total SFA</i>	0.73	0.56	0.95	0.04	(age-adjusted results also adjusted for treatment group) smoking, BMI, blood pressure, intakes of energy, alcohol and fiber, education and physical activity	0.93	0.6	1.44	0.909	
	CHD Event	<i>C₁₂ - C₁₆SFA</i>	0.88	0.74	1.04	0.18						
	Coronary death	<i>C₁₂ - C₁₆SFA</i>	0.74	0.57	0.96	0.045						
Mann <i>et al.</i> 1997	IHD Death											
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD		1.16	0.93	1.44	0.04	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, time period, menopausal status and hormone use, multivitamin use, vitamin E supplement use, alcohol intake, energy from protein, dietary cholesterol	1.07	0.77	1.48	0.37	as per MV 1, plus <i>trans</i> fatty acid intake

Supplementary Table 8. Relative Risks of Coronary Heart Disease and Saturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name	Endpoint	Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)					
		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend		
The Nurses Health Study Hu <i>et al.</i> 1999 (report for individual SFA's)	Incident CHD	<i>C 4:0 - 10:0</i>		0.87 %TE	2.00 %TE	1.03	0.85	1.25	0.99
		<i>C12:0 + 14:0</i>		0.98 %TE	2.14 %TE	1.5	1.23	1.83	0.0001
		<i>C16:0</i>		5.82 %TE	10.31 %TE	1.71	1.4	2.08	0.0001
		<i>C18:0</i>		2.61 %TE	4.91 %TE	1.97	1.61	2.42	0.0001
		<i>Sum of 12:0 - 18:0</i>		9.5 %TE	17.2 %TE	1.79	1.47	2.18	0.0001
The ARIC Study Wang, Folsom & Eckfeldt 2003	Incident CHD	<i>Cholesterol Ester FA</i>	<i>SFA</i>	NR	NR	1.42			0.026
		<i>Cholesterol Ester FA</i>	<i>Palmitic</i>	NR	NR	no association			ns
		<i>Cholesterol Ester FA</i>	<i>Stearic</i>	NR	NR	increased risk			0.004
		<i>Phospholipid FA</i>	<i>SFA</i>	NR	NR	increased risk			0.12
		<i>Phospholipid FA</i>	<i>Palmitic</i>	NR	NR	no association			ns
		<i>Phospholipid FA</i>	<i>Stearic</i>	NR	NR	increased risk			0.02
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>Cholesterol Ester FA</i>	<i>Palmitic</i>						
	CAD Death or AMI	<i>Cholesterol Ester FA</i>	<i>Palmitic</i>	≤ 12.81mol%	≥ 13.87 mol%				
	Revascularization	<i>Cholesterol Ester FA</i>	<i>Palmitic</i>						
The Nurses Health Study Oh <i>et al.</i> 2005	Incident CHD			10.1%TE	17.6%TE	1.52	1.30	1.79	<0.0001
The Strong Heart Study Xu <i>et al.</i> 2006	CHD death	<i>47 - 59 y</i>		7.8%TE	16.7%TE				
	CHD Death	<i>60 - 79 y</i>		7.2%TE	16.1%TE				
	CHD event	<i>whole cohort</i>		7.5%TE	16.5%TE				
	Nonfatal CHD	<i>whole cohort</i>							

Supplementary Table 8.

Study Name			Multivariate Results 1 (Lowest intake is comparison group)				Multivariate Results 2 (Lowest Intake is Comparison Group)					
Author, year published	Endpoint		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:
The Nurses Health Study Hu <i>et al.</i> 1999 (report for individual SFA's)	Incident CHD	<i>C 4:0 - 10:0</i>	1.07	0.89	1.3	0.78		1.00	0.82	1.21	0.6	
		<i>C12:0 + 14:0</i>	1.15	0.94	1.40	0.07	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, time period, menopausal status and	1.05	0.83	1.32	0.46	
		<i>C16:0</i>	1.09	0.89	1.33	0.04	hormone use, multivitamin use, vitamin E supplement use, alcohol intake, energy from protein, dietary cholesterol	1.03	0.71	1.50	0.45	MFUA, PUFA, <i>Trans</i> fat, protein, dietary cholesterol, dietary fiber, total energy
		<i>C18:0</i>	1.24	1.01	1.53	0.009		1.16	0.81	1.66	0.30	
		<i>Sum of 12:0 - 18:0</i>	1.14	0.93	1.39	0.03		1.04	0.72	1.48	0.47	
The ARIC Study Wang, Folsom & Eckfeldt 2003	Incident CHD	<i>Cholesterol Ester FA</i>	<i>SFA</i>	increased risk		0.07						
		<i>Cholesterol Ester FA</i>	<i>Palmitic</i>	no association		ns						
		<i>Cholesterol Ester FA</i>	<i>Stearic</i>	increased risk		0.12	Age, gender, smoking, alcohol intake, sports index, special diet, dietary cholesterol, percent energy intake from fat.					
		<i>Phospholipid FA</i>	<i>SFA</i>	no association		ns						
		<i>Phospholipid FA</i>	<i>Palmitic</i>	no association		ns						
		<i>Phospholipid FA</i>	<i>Stearic</i>	increased risk		0.04						
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>Cholesterol Ester FA</i>	<i>Palmitic</i>	0.34	0.09	1.26	0.072	Age, gender, diagnostic category, energy intake, serum cholesterol, serum TAG, diabetes, BMI, education.				
	CAD Death or AMI	<i>Cholesterol Ester FA</i>	<i>Palmitic</i>	0.71	0.29	1.76	0.06					
	Revascularization	<i>Cholesterol Ester FA</i>	<i>Palmitic</i>	0.77	0.32	1.85	0.347					
The Nurses Health Study Oh <i>et al.</i> 2005	Incident CHD			0.97	0.73	1.27	0.93	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.				
The Strong Heart Study Xu <i>et al.</i> 2006	CHD death	<i>47 - 59 y</i>		5.17	1.64	16.36	0.01	gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, alcohol consumption, hypertension, protein and total energy intake gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, alcohol consumption, hypertension, protein and total energy intake				
	CHD Death	<i>60 - 79 y</i>		0.8	0.41	1.54	0.22					
	CHD event	<i>whole cohort</i>		1.11	0.82	1.51	0.45					
	Nonfatal CHD	<i>whole cohort</i>		1.15	0.81	1.63	0.24					

Supplementary Table 8. Relative Risks of Coronary Heart Disease and Saturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name		Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)					Endpoint	
		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend			
Author, year published	Endpoint									
The ARIC Study Yamagishi <i>et al.</i> 2008	Heart Failure	<i>Cholesterol Ester FA</i>	<i>SFA</i>	NR	NR	HR	3.68	2.11	6.4	<0.0
		<i>Cholesterol Ester FA</i>	<i>Myristic</i>	NR	NR	HR	1.7	1.06	2.71	0.005
		<i>Cholesterol Ester FA</i>	<i>Pentadecanoic</i>	NR	NR	HR	0.8	0.5	1.28	0.39
		<i>Cholesterol Ester FA</i>	<i>Palmitic</i>	NR	NR	HR	4.02	2.24	7.21	<0.001
		<i>Cholesterol Ester FA</i>	<i>Margaric</i>	NR	NR	HR	0.81	0.52	1.26	0.38
		<i>Cholesterol Ester FA</i>	<i>Stearic</i>	NR	NR	HR	1.63	1.01	2.62	0.05
		<i>Phospholipid FA</i>	<i>SFA</i>	NR	NR	HR	2.71	1.64	4.45	<0.001
		<i>Phospholipid FA</i>	<i>Myristic</i>	NR	NR	HR	1.29	0.8	2.08	0.42
		<i>Phospholipid FA</i>	<i>Pentadecanoic</i>	NR	NR	HR	0.62	0.38	1.02	0.04
		<i>Phospholipid FA</i>	<i>Palmitic</i>	NR	NR	HR	2.16	1.36	3.43	<0.001
		<i>Phospholipid FA</i>	<i>Margaric</i>	NR	NR	HR	0.55	0.35	0.85	0.008
		<i>Phospholipid FA</i>	<i>Stearic</i>	NR	NR	HR	1.01	0.64	1.58	0.9

ABBREVIATIONS: SFA, saturated fat; CHD, coronary heart disease; MI, myocardial infarction; IHD, Ischemic Heart Disease; CI, confidence interval; RR, relative risk; TE, total energy; BMI, Body Mass Index; PUFA, polyunsaturated fat; MUFA, monounsaturated fat; LDL, LDL-cholesterol; HDL, HDL-cholesterol; ALA, alpha-linolenic; TAG, triacylglycerol; FA, fatty acid; HDL, HDL-cholesterol; LDL, LDL-cholesterol, CE, cholesterol ester; PL, phospholipid.

Supplementary Table 8.

Study Name	Multivariate Results 1 (Lowest intake is comparison group)					Multivariate Results 2 (Lowest Intake is Comparison Group)				
	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:
Author, year published										

The ARIC Study
 Yamagishi *et al.* 2008

ABBREVIATIONS: SFA, saturated fat; CHD, LDL-cholesterol; HDL, HDL-cholesterol; ALA

Supplementary Table 9. Relative Risks of Coronary Heart Disease and Incremental Change in Saturated Fat Intake

Study Name	Endpoint	Effect of increasing SAFA intake				adjusted for:		
		RR	lower 95%CI	upper 95%CI	p-value			
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Total MI	Increase by 5%	0.86	0.66	1.12	age, BI, smoking, alcohol, physical activity, history hypertension or high blood cholesterol, family history MI, energy intake		
	Fatal CHD		1.34	0.86	2.08			
Esry, Joseph & Grover 1996	CHD Death	<i>age 30 - 59 y</i>	one unit increase SAFA	1.11	1.04	1.18	age, gender, energy intake, serum lipids, systolic blood pressure, smoking, BMI glucose intolerance	
		<i>age 60 - 79 y</i>	one unit increase SAFA	0.96	0.88	1.05		
The AT/BC Study Pietnen <i>et al.</i> 1997	Coronary death		Increase of 5g	0.90	0.87	0.94	Not noted	
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD		Each 5%E increase	1.14	0.97	1.34	0.12	Fully adjusted
The Nurses Health Study Hu <i>et al.</i> 1999 (report for individual SAFA's)	Incident CHD	<i>C 4:0 - 10:0</i>	For 1% energy increase: C 4:0 - 10:0	1.07	0.94	1.23	0.30	Fully adjusted
		<i>C12:0 + 14:0</i>	C12:0 + 14:0	1.14	1.01	1.29	0.03	
		<i>C16:0</i>	C16:0	1.03	0.99	1.07	0.14	
		<i>C18:0</i>	C18:0	1.09	1.02	1.17	0.02	
		<i>Sum of 12:0 - 18:0</i>	For 5% energy increase: of 12:0 - 18:0	Sum	1.10	1.00	1.23	
The Health & Lifestyle Survey Bonniface & Teft 2002	CHD death	<i>Women</i>	100g/week increase	1.00	0.86	1.18	0.959	age, alcohol, smoking, exercise, social class
		<i>Men</i>	100g/week increase	1.40	1.09	1.79	0.0074	
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD death		1 standard deviation increase	1.01	0.61	1.69	0.966	age, gender, diagnostic category, energy intake, serum cholesterol TAG, diabetes, BMI, education
	CAD death or AMI		1 standard deviation increase	1.00	0.68	1.46	0.993	
	Revascularization		1 standard deviation increase	1.19	0.85	1.66	0.304	
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003	CHD Event		increase by 5% women	1.36	0.98	1.88	fiber, dietary cholesterol, systolic blood pressure, BMI, cohort, fat intake, energy intake protein intake, family history MI, smoking, physical activity, education, alcohol	
			increase by 5%: men	1.03	0.78	1.37		
The Baltimore Longitudinal Study of Aging Tucker <i>et al.</i> 2005	CHD death		gram increase in SAFA	1.07	1.03	1.11	<0.001	age at first visit, total energy intake, BMI, smoking, alcohol intake, physical activity score, supplement use.
The Nurses Health Study Oh <i>et al.</i> 2005	CHD Event		Increase by 5%	1.01	0.81	1.26	0.93	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.
The Strong Heart Study Xu <i>et al.</i> 2006 (results by age)	CHD death	<i>47 - 59 y</i>	Increase of 5%TE	HR 1.66	1.15	2.42	gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, hypertension, percent energy from protein, total energy intake, all other fats.	
		<i>60 - 79 y</i>	Increase of 5%TE	HR 1.45	0.84	2.51		

ABBREVIATIONS: SAFA, saturated fat; MI, Myocardial Infarction; AMI, acute myocardial infarction; CHD, coronary heart disease; RR, relative risk; CI, confidence interval; BMI, Body Mass Index.

Supplementary Table 10.

Mean Monounsaturated Fat Intakes for All Participants, and Comparison of Mean Intakes of Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name	Mean MUFA intake (or concentration) for whole cohort	Comparison of mean intake (or concentration) between cases and controls				
		Endpoint	CHD Events	No CHD Event	p-value	
The Honolulu Heart Study	33g	Total CHD	33g (13.2%TE)	33 g (12.8%TE)	ns	
Gordon <i>et al.</i> 1981;	(12.8%TE)	MI or CHD Death	32g (13.69%TE)		<0.01 for %TE	
McGee <i>et al.</i> 1984		Other CHD	32g (12.6%TE)		ns	
The Framingham Study	47g	Total CHD	45g (14.1%TE)	46g (13.8%TE)	ns	
Gordon <i>et al.</i> 1981	(16%TE)	MI or CHD Death	43g (14.2%TE)		ns	
		Other CHD	48g (14.0%TE)		ns	
The Puerto Rico Heart Health Program	37g	Total CHD	35g (16.2%TE)	36g (15.8%TE)	ns	
Garcia-Palmieri <i>et al.</i> 1980	(13.7%TE)	MI or CHD Death	33g (16.3%TE)		ns	
Gordon <i>et al.</i> 1981		Other CHD	36g (15.9%TE)		ns	
Miettinen <i>et al.</i> (nested case-control)	NR					
		<i>serum lipid concentrations</i>	<i>TAG 18:1</i>	43.63%FA	41.96%FA	<0.05
			<i>CE 18:1</i>	25.69%FA	25.31%FA	ns
			<i>PL 18:1</i>	18.29%FA	17.52%FA	ns
The Zutphen Study	around 59g	CHD Death	56.7g	62.0g	0.094	
Kromhout & de Lezenne Coulander 1984	(18.2%TE)		(18.2%TE)	(18.2%TE)	0.997	
Farchi <i>et al.</i> 1989	around 48g	CHD Death	43.9g	49.5g	<0.05	
	(15.4%TE)		14.9%TE	15.9%TE	ns	
The Framingham Study	around 46g					
Posner <i>et al.</i> 1991	(15.8%TE)					
Goldbourt, Yaari & Medalie 1993	M/S ratio	CHD Death Rates (per 10,000 person years)	58	50		
		Q1 vs Q5				

Supplementary Table 10.

Mean Monounsaturated Fat Intakes for All Participants, and Comparison of Mean Intakes of Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name	Mean MUFA intake (or concentration) for whole cohort		Comparison of mean intake (or concentration) between cases and controls				
			Endpoint	CHD Events	No CHD Event	p-value	
The Seven Countries Study Kromhout <i>et al.</i> 1995	C18:1cis		Correlation between MUFA intake and CHD:	r= -0.08 (ns)			
Esrey, Joseph & Grover 1996	around 36g		CHD Death	<i>age 30 -59 y</i>	40.9g (16.9%TE)	38.6g (15.5%TE)	
	(15.5%TE)			<i>age 60 - 79 y</i>	35.1 (15.1%TE)	30.6g (14.7%TE)	
Ohrvall <i>et al.</i> 1996	not measured	<i>Fatty acid in cholesterol esters</i>	MI	<i>CE 18:1 n-9</i>	19.8%FA	19.5%FA	0.72
				<i>CE 16: 1n-7</i>	4.11%FA	3.83%FA	0.0163
The AT/BC Study Pietnen <i>et al.</i> 1997	Q3 - 31.8g						
The Nurses Health Study Hu <i>et al.</i> 1997	16.0%TE						
The Physicians Health Study (nested case-control)	Total MUFA	<i>Blood fatty acid</i>	Sudden Cardiac Death	<i>Total MUFA</i>	19.8%FA	19.5%FA	0.72
Albert <i>et al.</i> 2002	19.6% total fatty acids			<i>Oleic</i>	17.2%FA	17.0%FA	0.89
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003	50th percentile						
The ARIC Study Wang, Folsom & Eckfeldt 2003		<i>serum lipid concentrations (% of total fatty acids)</i>	Incident CHD	<i>CE MUFA</i>	18.8%FA	18.6%FA	ns
				<i>CE Palmitoleic</i>	2.53%FA	2.58%FA	ns
				<i>CE Oleic</i>	16.2%FA	16%FA	<0.1
				<i>PL MUFA</i>	9.96%FA	9.97%FA	ns
				<i>PL Palmitoleic</i>	0.62%FA	0.64%FA	ns
			<i>PL Oleic</i>	8.62%FA	8.6%FA	ns	

Supplementary Table 10.

Mean Monounsaturated Fat Intakes for All Participants, and Comparison of Mean Intakes of Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name	Mean MUFA intake (or concentration) for whole cohort	Comparison of mean intake (or concentration) between cases and controls				
		Endpoint	CHD Events	No CHD Event	p-value	
The Nurses Health Study	Q3 - 13.8%TE					
Oh <i>et al.</i> 2005						
The Strong Heart Study	around 28g	CHD death	47 - 59 y	30.8 g (14.0%TE)	29.6g (13.7%TE)	ns
Xu <i>et al.</i> 2006	(13.5%TE)	CHD Death	60 - 79 y	25.2g (13.2%TE)	25.0g (13.0%TE)	ns

Abbreviations: CHD, coronary heart disease; MUFA, monounsaturated fat; MI, myocardial infarction; TE, total energy; TAG, triacylglycerol; CE, cholesterol ester; PL, phospholipid; M/S, monounsaturated fat / saturated fat; Q1, quintile 1; Q3, quintile 3; Q5, quintile 5; ns, not significant; y, years

Supplementary Table 11. Relative Risks of Coronary Heart Disease and Monounsaturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name	Intakes for Relative Risk				Age-adjusted results (Lowest Intake is Comparison Group)				
	Author, year published	Endpoint	Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
The Framingham Study Posner <i>et al.</i> 1991	CHD Death	<i>lowest intake: NECP Recommendations</i>	45-55y	30g	48.5g	0.68	0.50	0.94	
				(10%TE) NCEP Recommendations	(16.2%TE) Sample mean for age group	0.69	0.56	0.94	
		<i>Highest intake: sample mean intake</i>	56-65y	30g	44.3g	1.01	0.84	1.22	
				(10%TE) NCEP Recommendations	(15.5%TE) Sample mean for age group	1.15	0.76	1.73	
The AT/BC Study Pietnen <i>et al.</i> 1997	Major coronary event		MUFA	26.0g	37.8g	0.96	0.81	1.13	0.658
	coronary death		MUFA	26.0g	37.8g	0.88	0.69	1.11	0.504
	Major coronary event		Oleic acid	22.7g	33.1g	0.98	0.83	1.16	0.644
	Coronary death		Oleic acid	22.7g	33.1g	0.87	0.69	1.11	0.581
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD			11.0%TE	19.3%Te	1.30	1.07	1.59	0.004
The ARIC Study Wang, Folsom & Eckfeldt 2003	Incident CHD	<i>Cholesterol Ester FA</i>	<i>MUFA</i>	NR	NR	no association			ns
		<i>Cholesterol Ester FA</i>	<i>Palmitoleic</i>	NR	NR	no association			ns
		<i>Cholesterol Ester FA</i>	<i>Oleic</i>	NR	NR	no association			ns
		<i>Phospholipid FA</i>	<i>MUFA</i>	NR	NR	no association			ns
		<i>Phospholipid FA</i>	<i>Palmitoleic</i>	NR	NR	no association			ns
		<i>Phospholipid FA</i>	<i>Oleic</i>	NR	NR	no association			ns
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>Cholesterol Ester FA</i>	<i>Oleic</i>						
	CAD Death or AMI	<i>Cholesterol Ester FA</i>	<i>Oleic</i>	≤ 20.05mol%	≥ 22.31 mol%				
	Revascularization	<i>Cholesterol Ester FA</i>	<i>Oleic</i>						

Supplementary Table 11.

Study Name		Multivariate Results 1 (Lowest intake is comparison group)					Multivariate Results 2 (Lowest Intake is Comparison Group)					
		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	
The Framingham Study Posner <i>et al.</i> 1991	CHD Death	45-55y	0.64	0.47	0.88							
		<i>lowest intake: NECP Recommendations</i>	0.64	0.48	0.87		Energy intake, physical activity, serum cholesterol, systolic blood pressure, left ventricular hypertrophy, smoking, glucose intolerance, Metropolitan Life Insurance Company relative weight.					
		<i>Highest intake: sample mean intake</i>	0.99	0.77	1.27							
		56-65y	1.02	0.78	1.34							
The AT/BC Study Pietnen <i>et al.</i> 1997	Major coronary event	MUFA	0.82	0.69	0.99	0.186					as per MV1 plus <i>trans</i> , MUFA, linoleic acid	
	coronary death	MUFA	0.77	0.59	1.00	0.15	0.79	0.56	1.1	0.429		
	Major coronary event	Oleic acid	0.84	0.70	1.01	0.22	(age-adjusted results also adjusted for treatment group) smoking, BMI, blood pressure, intakes of energy, alcohol and fiber, education and physical activity					
	Coronary death	Oleic acid	0.76	0.59	0.99	0.213						
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD		1.18	0.95	1.46	0.14	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, time period, menopausal status and hormone use, multivitamin use, vitamin E supplement use, alcohol intake, energy from protein, dietary cholesterol	0.95	0.64	1.39	0.57	as per MV 1, plus <i>trans</i> fatty acid intake
The ARIC Study Wang, Folsom & Eckfeldt 2003	Incident CHD	<i>Cholesterol Ester FA</i> <i>MUFA</i>				ns						
		<i>Cholesterol Ester FA</i> <i>Palmitoleic</i>				ns						
		<i>Cholesterol Ester FA</i> <i>Oleic</i>				ns	Age, gender, smoking, alcohol intake, sports index, special diet, dietary cholesterol, percent energy intake from fat.					
		<i>Phospholipid FA</i> <i>MUFA</i>				ns						
		<i>Phospholipid FA</i> <i>Palmitoleic</i>				ns						
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>Cholesterol Ester FA</i> <i>Oleic</i>	1.37	0.35	5.42	0.834						
	CAD Death or AMI	<i>Cholesterol Ester FA</i> <i>Oleic</i>	1.57	0.57	4.39	0.44	Age, gender, diagnostic category, energy intake, serum cholesterol, serum TAG, diabetes, BMI, education.					
	Revascularization	<i>Cholesterol Ester FA</i> <i>Oleic</i>	0.95	0.37	2.45	0.907						

Supplementary Table 11. Relative Risks of Coronary Heart Disease and Monounsaturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name	Endpoint	Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)					
		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend		
The Nurses Health Study Oh <i>et al.</i> 2005	Incident CHD	10.6%TE	18.0%TE	1.30	1.11	1.53	0.0003		
The Strong Heart Study Xu <i>et al.</i> 2006	CHD event	<i>whole cohort</i> HR	8.5%TE	18.2%TE					
	non-fatal CHD	<i>whole cohort</i> HR	8.5%TE	18.2%TE					
		<i>age 47-59 y</i> HR	8.7%TE	18.6%TE					
		<i>age 60-79y</i> HR	8.2%Te	17.7%TE					
The ARIC Study Yamagishi <i>et al.</i> 2008	Heart Failure	<i>Cholesterol Ester FA MUFA</i>	NR	NR	HR	2.37	1.47	3.82	0.001
		<i>Cholesterol Ester FA Palmitoleic</i>	NR	NR	HR	2.26	1.39	3.68	<0.001
		<i>Cholesterol Ester FA Oleic</i>	NR	NR	HR	1.8	1.13	2.85	0.004
		<i>Phospholipid FA MUFA</i>	NR	NR	HR	1.36	0.88	2.11	0.32
		<i>Phospholipid FA Palmitoleic</i>	NR	NR	HR	1.67	1.1	2.52	0.01
		<i>Phospholipid FA Oleic</i>	NR	NR	HR	1.38	0.9	2.11	0.17

Supplementary Table 11.

Study Name		Multivariate Results 1 (Lowest intake is comparison group)				Multivariate Results 2 (Lowest Intake is Comparison Group)					
Author, year published	Endpoint	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:
The Nurses Health Study Oh <i>et al.</i> 2005	Incident CHD	0.82	0.62	1.10	0.19	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.					
The Strong Heart Study Xu <i>et al.</i> 2006	CHD event	<i>whole cohort</i>	<i>HR</i>	1.09	0.8	1.48	0.64				
	non-fatal CHD	<i>whole cohort</i>	<i>HR</i>	1.23	0.86	1.76	0.32	gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, alcohol consumption, hypertension, protein and total energy intake			
		<i>age 47-59 y</i>	<i>HR</i>	3.43	1.17	10.04	0.01				
		<i>age 60-79y</i>	<i>HR</i>	0.54	0.27	1.06	0.07				
The ARIC Study Yamagishi <i>et al.</i> 2008											

ABBREVIATIONS: SAFA, saturated fat; CHD, coronary heart disease; MI, myocardial infarction; CI, confidence interval; RR, relative risk; HR, Hazard Ratio; TE, total energy; BMI, Body Mass Index; PUFA, polyunsaturated fat; MUFA, monounsaturated fat; NCEP, The National Cholesterol Education Programme; ALA, alpha-linolenic; TAG, triacylglycerol; LDL, LDL-cholesterol; HDL, HDL-cholesterol.

Supplementary Table 12. Relative Risks of Coronary Heart Disease and Incremental Change in Monosaturated Fat Intake

Study Name	Endpoint	Effect of increasing MUFA intake						adjusted for:
		RR	lower 95%CI	upper 95%CI	p-value			
Esry, Joseph & Grover 1996	CHD Death	<i>age 30 - 59 y</i>	one unit increase MUFA	1.08	1.01	1.16	<0.05	age, gender, energy intake, serum lipids, systolic blood pressure, smoking, BMI.
		<i>age 60 - 79 y</i>	one unit increase MUFA	1.00	0.91	1.08	ns	
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD		Each 5%E increase	0.84	0.7	1.01	0.06	Fully adjusted
AT/BC Pietinen <i>et al.</i> 1997	CHD death		11.8g increase	0.79	0.56	1.10	0.429	age, treatment group, smoking, BMI, blood pressure, intakes of energy, alcohol, fiber, education, physical activity, trans, SAFA & linoleic intake.
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2004	CHD Event	<i>women</i>	increase by 5%	HR	1.01	0.56	1.83	fiber, dietary cholesterol, systolic blood pressure, BMI, cohort, fat intake, energy intake protein intake, family history MI, smoking, physical activity, education, alcohol
		<i>men</i>	increase by 5%	HR	0.95	0.65	1.40	
		<i>women <60y</i>	increase by 5%	HR	2.56	1.15	5.73	
		<i>men >60y</i>	increase by 5%	HR	0.75	0.4	1.41	
		<i>men <60y</i>	increase by 5%	HR	1.37	0.78	2.40	
		<i>men >60y</i>	increase by 5%	HR	0.85	0.57	1.28	
The Nurses Health Study Oh <i>et al.</i> 2005	CHD Event		Increase by 5%	0.91	0.72	1.16	0.19	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.
The Strong Heart Study Xu <i>et al.</i> 2006	CHD death	<i>47 - 59 y</i>	Increase of 5%TE	HR	1.68	1.11	2.53	gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, hypertension, percent energy from protein, total energy intake, all other fats.
		<i>60 - 79 y</i>	Increase of 5%TE	HR	0.82	0.63	1.07	

ABBREVIATIONS: MUFA, monounsaturated fat; SAFA, saturated fat; MI, Myocardial Infarction; CHD, coronary heart disease; RR, relative risk; CI, confidence interval; BMI, Body Mass Index; TE, total energy; HR, hazard ratio; TAG, triacylglycerol.

Table S12, page 1 of 1

Supplementary Table 13.

Mean Polyunsaturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name	Mean PUFA intake	Endpoint	Comparison of mean intake or serum fatty acid concentration					
			CHD Patients	Non CHD Participants	p-value			
The Western Electric Study Paul <i>et al.</i> 1963	82g	CHD Event	<i>Unsaturated fat</i>	80g	83g	ns		
			<i>Linoleic acid</i>	11.57g	12.28g			
			<i>Linolenic acid</i>	0.66g	0.69g			
			<i>Arachidonic Acid</i>	0.97	0.98			
Diet and Heart Morris <i>et al.</i> 1977	8.5 - 12% TE marine and vegetable fats and oils (tertile 2)	CHD Event	oils: tertile 1 vs tertile 3	$T1 = 19$	ns			
			P/S: tertile 1 vs tertile 3 (first 5 years)	$T1 = 20$ $T3 = 7$	p<0.05			
The Western Electric Study Shekelle <i>et al.</i> 1981	not noted	CHD Death	logistic regression:	-0.258 $p=0.010$				
The Honolulu Heart Study Gordon <i>et al.</i> 1984 McGee <i>et al.</i> 1984	15g (6.0%TE)	Total CHD		16g (6.7%TE)	16g (6.0%TE)	<0.01 (%TE)		
		MI or CHD Death		16g (6.7%TE)		<0.01 (%TE)		
		Other CHD		17g (6.6%TE)		ns		
The Framingham Study Gordon <i>et al.</i> 1981	16g (5.3%TE)	Total CHD		16g (5.8%TE)	16g (5.4%TE)	ns		
		MI or CHD Death		16g (6.0%TE)		ns		
		Other CHD		16g (5.4%TE)		ns		
The Puerto Rico Heart Health Program Garcia-Palmieri <i>et al.</i> 1980 Gordon <i>et al.</i> 1981	14g (5.3%TE)	Total CHD		15g (6.0%TE)	14g (5.3%TE)	<0.01 (%TE)		
		MI or CHD Death		15g (6.2%TE)		<0.01 (%TE)		
		Other CHD		14g (5.7%TE)		ns		
Miettinen <i>et al.</i> (nested case-control) 1982		CHD Event	% of total	$PL\ 18:2$	23.40%	26.15%	<0.05	(other fractions not significantly different)
			<i>fatty acids up to 18:3</i>	$PL\ 18:3$	0.20%	0.23%	<0.05	
				$PL\ total\ PUFA$	14.63%	17.74%	<0.05	
The Zutphen Study Kromhout & de Lezenne Coulander 1984	around 19.2g (5.9%TE)	CHD Death			18.3g	20.1g	0.132	
					(5.9%TE)	(5.9%TE)	0.979	
The Ireland-Boston Diet-Heart Study	around 2.7%TE	CHD Death	logistic regression:	-0.069 ($p=0.52$)	2.6%TE	2.7%TE	0.73	

Supplementary Table 13.

Mean Polyunsaturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean PUFA intake	Endpoint	Comparison of mean intake or serum fatty acid concentration		
			CHD Patients	Non CHD Participants	p-value
Kushi <i>et al.</i> 1985			Proportional Hazards regression: -0.070 ($p=0.45$)		
Farchi <i>et al.</i> 1989	around 11.1g (3.6%TE)	CHD Death	9.2g (3.2%TE)	11.5g (3.7%TE)	<0.01 ns
The Framingham Study Posner <i>et al.</i> 1991	15.8g (5.5%TE)		refer table 14 for results		
MRFIT	16.8g	All CHD	<i>Linoleic</i> %TE	-0.0724 ($p<0.1$)	<0.1
			α -linolenic %TE	-0.8493 ($p<0.05$)	<0.05
			18:3n-3 / 18:2n-6 ratio	0.2764	ns
Dolecek 1992			total n-3 / n-6 ratio	-0.5447	ns
Goldbourt, Yaari & Medalie 1993	not noted	CHD Mortality	<i>Linoleic Acid</i> (not noted if grams or %TE)	Age adjusted rates per 10,000 person-years of follow-up	63 47
The Seven Countries Study Kromhout <i>et al.</i> 1995	lowest 3.4%TE highest 8.6%TE	CHD Death	C18:2CC	Correlation: 0.00	
			EPA + DHA	Correlation: -0.36 (ns)	0.36

Supplementary Table 13.

Mean Polyunsaturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean PUFA intake	Endpoint	Comparison of mean intake or serum fatty acid concentration				
			CHD Patiens	Non CHD Participants	p-value		
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Linoleic Q3 - 11.0g/d					<i>refer table 14 for results</i>	
Esrey, Joseph & Grover 1996	around 14.4g (6.3%TE)	CHD Death	<i>age 30 - 59 y</i>	14.3g (6.0%TE)	15.8g (6.5%TE)	ns	
			<i>age 60 - 79 y</i>	14.5g (6.4%TE)	12.9g (6.2%TE)	ns	
Ohrvall <i>et al.</i> 1996	Not measured	MI	<i>CE 18:2 n-6</i>	52.9%FA	54.1%FA	0.0065	
			<i>CE 18:3 n-6</i>	0.74%FA	0.70%FA	0.1091	
			<i>CE 18:3 n-3</i>	0.68%FA	0.66%FA	0.2977	
			<i>CE 20:3 n-6</i>	0.60%FA	0.57%FA	0.0028	
			<i>CE 20:4 n-6</i>	4.73%FA	4.77%FA	0.6158	
The AT/BC Study Pietnen <i>et al.</i> 1997	Q3 - 9.6g					<i>refer table 14 for results</i>	
The Nurses Health Study Hu <i>et al.</i> 1997	Q3 - 4.6%TE					<i>refer table 14 for results</i>	
The Nurses Health Study Hu <i>et al.</i> 1999	α -linolenic 1.10g (0.57%TE)					<i>refer table 14 for results</i>	
The Zutphen Elderly Study Oomen <i>et al.</i> 2001	Linoleic 5.0%TE					<i>refer table 14 for results</i>	
The Physicians Health Study (nested case-control) Albert <i>et al.</i> 2002	Total PUFA 38.2% total fatty acids	Sudden Cardiac Death	<i>% of total fatty acids</i>	<i>total PUFA</i>	38.1%FA	38.3%FA	0.65
				<i>linoleic</i>	24%FA	24.2%FA	0.56
				<i>ALA</i>	0.39%FA	0.37%FA	0.28
The Health & Lifestyle Survey Bonniface & Teft 2002	men: 93.7g/week women: 63.1g/week	CHD Death Rate	<i>Death rates: Women</i>	2.40%	4.40%	0.4613	
			<i>Men</i>	7.40%	9.00%	0.6611	
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003	6.5%TE					<i>refer table 14 for results</i>	

Supplementary Table 13.

Mean Polyunsaturated Fat Intakes for All Participants, and Comparison of Mean Intakes Between Participants With a CHD Event and Those Without. Results from the Prospective Cohort Studies.

Study Name Author, year published	Mean PUFA intake	Endpoint	Comparison of mean intake or serum fatty acid concentration					
			CHD Patients	Non CHD Participants	p-value			
The ARIC Study Wang, Folsom & Eckfeldt 2003	not measured		<i>Cholesterol Ester FA</i>	<i>CE PUFA</i>	65.2%FA	65.7%FA	<0.1	(other fractions not significantly different)
				<i>CE n-6</i>	63.7%FA	64.2%FA	<0.05	
				<i>CE 20:3n6</i>	0.78%FA	0.76%FA	<0.05	
			<i>Serum lipid concentrations</i>	<i>CE arachidonic</i>	7.99%FA	8.25%FA	<0.05	
			<i>(% of total fatty acids)</i>	<i>PL PUFA</i>	42.5%FA	42.7%FA	<0.1	
				<i>PL α-linolenic</i>	0.14%FA	0.15%FA	<0.05	
				<i>PL n-6</i>	38%FA	38.2%FA	<0.1	
				<i>PL 20:3n6</i>	3.45%FA	3.32%FA	<0.05	
		<i>PL arachidonic</i>	11.2%FA	11.5%FA	<0.05			
The Cardiovascular Health Study, Nested Case-Control Lemaitre <i>et al.</i> 2003	not measured	IHD Death		<i>Linoleic</i>	0.16%FA	0.17%FA	ns	
		Nonfatal MI	<i>fatty acid concentrations of plasma Phospholipids</i>	<i>Linolenic</i>	0.17%FA	0.17%FA	ns	
		IHD Death		<i>Linoleic</i>	20.1%FA	19.2%FA	<0.05	
		Nonfatal MI		<i>Linolenic</i>	20.3%FA	20%FA	ns	
The Nurses Health Study Oh <i>et al.</i> 2005	Q3 - 5.6%TE			refer table 14 for results				
The Nurses Health Study, Nested Case-Control Sun <i>et al.</i> 2008	NR	Nonfatal MI	<i>Plasma Fatty acids</i>	<i>Linolenic</i>	0.55%FA	0.51%FA	0.01	
			<i>Erythrocyte Fatty acids</i>	<i>Linolenic</i>	0.19%FA	0.18%FA	0.00	
The Strong Heart Study Xu <i>et al.</i> 2006	around 13.1g (6.4%TE)	CHD death	<i>47 - 59 y</i>		14.6g (6.8%TE)	14.6g (6.7%TE)	ns	
		CHD Death	<i>60 - 79 y</i>		11.2g (5.9%TE)	12.1g (6.3%TE)	ns	

Abbreviations: CHD, coronary heart disease; MI, myocardial infarction; TE, total energy; PUFA, polyunsaturated fat; ns, not significant; EPA, eicosapentanoic; DHA, docosahexaenoic; PL, phospholipid; CE, cholesterol ester.

Supplementary Table 14. Relative Risks of Coronary Heart Disease and Polyunsaturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name	Endpoint	Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)				
		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
The Western Electric Study Shekelle <i>et al.</i> 1981	CHD Death	RR calculated from logistic regression	NR	NR	0.77 (p=0.010)			
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	CHD Death	RR calculated from logistic regression	NR	NR	0.93 (p=0.52)			
		45-55y	30g	16.5g	1.33	0.92	1.91	
		<i>lowest intake: NECP Recommendations</i>	(10%TE) NCEP Recommendations	(5.5%TE) Sample mean for age group	1.31	0.92	1.85	
The Framingham Study Posner <i>et al.</i> 1991	CHD Death	<i>Highest intake: sample mean intake</i>	56-65y 30g	15g	1.20	0.85	1.69	
			(10%TE) NCEP Recommendations	(5.4%TE) Sample mean for age group	0.90	0.77	1.05	
		<i>Linoleic</i>	<i>grams</i>	7.04	25.07			
		<i>Linoleic</i>	<i>%TE</i>	3.3%TE	8.8%TE			
MRFIT Dolecek 1992	All CHD	<i>ALA</i>	<i>grams</i>	0.87g	2.8g	<i>no age-adjusted results</i>		
		<i>ALA</i>	<i>%TE</i>	0.4%TE	0.98%TE			
		<i>ALA/linoleic ratio</i>	<i>ratio</i>	0.08	0.17			
		<i>total n-3 / n-6 ratio</i>	<i>ratio</i>	0.086	0.199			
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Total MI	<i>Linoleic</i>	7.6g/d	15.4g/d	1.08	0.85	1.36	0.89
	Fatal CHD				1.28	0.84	1.97	0.41
	MACE	<i>Total PUFA</i>	6.6 g	20.7g	1.09	0.93	1.29	0.524
	coronary death	<i>Total PUFA</i>			1.15	0.91	1.45	0.156
The AT/BC Study Pietnen <i>et al.</i> 1997	MACE	<i>linoleic</i>	4.4g	17.6g	1.04	0.89	1.23	0.544
	Coronary death	<i>linoleic</i>			1.22	0.97	1.55	0.032
	MACE	<i>ALA</i>	0.9g	2.5g	0.94	0.8	1.11	0.716
	Coronary death	<i>ALA</i>			0.97	0.68	1.12	0.423
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD		2.9%TE	6.4%TE	0.89	0.73	1.09	0.28

Supplementary Table 14.

Study Name			Multivariate Results 1 (Lowest intake is comparison group)				Multivariate Results 2 (Lowest Intake is Comparison Group)						
			RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	
The Western Electric Study Shekelle <i>et al.</i> 1981	CHD Death	RR calculated from logistic regression											
The Ireland-Boston Diet-Heart Study Kushi <i>et al.</i> 1985	CHD Death	RR calculated from logistic regression											
		45-55y	1.34	0.93	1.93								
		lowest intake: NECP Recommendations	1.34	0.95	1.90								
The Framingham Study Posner <i>et al.</i> 1991	CHD Death	Highest intake: sample mean intake	56-65y	1.26	0.82	1.93							
				1.27	0.89	1.81							
		Linoleic	grams	0.63									
		Linoleic	%TE	0.58	(p<0.1)								
MRFIT Dolecek 1992	All CHD	ALA	grams	0.66			age, race, smoking, blood pressure, HDL, LDL, alcohol						
		ALA	%TE	0.58	(p<0.05)								
		ALA/linoleic ratio	ratio	0.96									
		total n-3 / n-6 ratio	ratio	0.90									
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Total MI	Linoleic		1.05	0.83	1.34	0.97	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, history high blood cholesterol, profession	1.04	0.82	1.33	0.89	as per MV1 plus fibre
	Fatal CHD			1.30	0.85	2.00			1.28	0.83	1.98	0.41	
	MACE	Total PUFA		1.11	0.94	1.31	0.47						
	coronary death	Total PUFA		1.27	1.00	1.61	0.03	(age-adjusted results also adjusted for treatment group) smoking, BMI, blood pressure, intakes of energy, alcohol and fiber, education and physical activity					as per MV1 plus trans, MUFA, linoleic acid
The AT/BC Study Pietnen <i>et al.</i> 1997	MACE	linoleic		1.06	0.90	1.25	0.48	(age-adjusted results also adjusted for treatment group) smoking, BMI, blood pressure, intakes of energy, alcohol and fiber, education and physical activity					
	Coronary death	linoleic		1.22	0.97	1.55	0.032						
	MACE	ALA		0.96	0.80	1.14	0.911						
	Coronary death	ALA		0.99	0.76	1.28	0.770						
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD			0.83	0.67	1.02	0.07	Age, BMI, smoking, physical activity, history of hypertension, family history MI before age 60, energy intake, time period, menopausal status and hormone use, multivitamin use, vitamin E supplement use, alcohol intake, energy from protein, dietary cholesterol	0.68	0.53	0.88	0.003	as per MV 1, plus SFA, MUFA and trans fat

Supplementary Table 14. Relative Risks of Coronary Heart Disease and Polyunsaturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name	Endpoint	Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)				
		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
The Nurses Health Study Hu <i>et al.</i> 1999	Fatal CHD	<i>ALA</i>	0.71 g/d	1.36 g/d	<i>no age-adjusted results</i>			
	Nonfatal CHD							
The Zutphen Elderly Study Oomen <i>et al.</i> 2001	Incident CAD	<i>ALA</i>	0.4%TE	0.67%TE	2.23	1.32	3.76	0.003
	Fatal CAD	<i>ALA</i>	0.4%TE	0.67%TE	1.95	0.96	3.94	0.05
	Incident CAD	<i>ALA from sources with trans fats</i>	<0.40%TE	>0.52%TE	2.20	1.30	3.71	0.004
	Incident CAD	<i>ALA from sources without trans fats</i>	<0.04%TE	>0.06%TE	0.97	0.58	1.63	0.90
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>Cholesterol Ester FA</i>	<i>Linoleic</i>					
	CAD Death or AMI	<i>Cholesterol Ester FA</i>	<i>Linoleic</i>	<46.74	>50.69			
	Revascularization	<i>Cholesterol Ester FA</i>	<i>Linoleic</i>					
	CAD Death	<i>Cholesterol Ester FA</i>	<i>ALA</i>					
	CAD Death or AMI	<i>Cholesterol Ester FA</i>	<i>ALA</i>					
	Revascularization	<i>Cholesterol Ester FA</i>	<i>ALA</i>					
The Nurses Health Study	Sudden Cardiac Death				0.70	0.45	1.07	0.06
Albert <i>et al.</i> 2005	Other CHD Death	<i>ALA</i>	0.37%TE	0.74%TE	1.04	0.81	1.33	0.89
	Nonfatal MI				1.14	0.98	1.34	0.11
The Nurses Health Study Oh <i>et al.</i> 2005		<i>whole cohort</i>	4.1 %TE	7.4 %TE	0.80	0.69	0.94	0.002
	Incident CHD	<i>age < 65 y</i>	NR	NR				
		<i>age > 65 y</i>	NR	NR				
		<i>BMI < 25</i>	NR	NR				
		<i>BMI > 25</i>	NR	NR				

Supplementary Table 14.

Study Name		Multivariate Results 1 (Lowest intake is comparison group)					Multivariate Results 2 (Lowest Intake is Comparison Group)						
		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:		
The Nurses Health Study Hu <i>et al.</i> 1999	Fatal CHD	<i>ALA</i>	0.71	0.47	1.08	0.03	age and smoking	0.55	0.32	0.94	0.01	as per MV1, plus time period, BMI, smoking, history hypertension, hypercholesterolemia	
	Nonfatal CHD		0.84	0.64	1.08	0.29		0.85	0.61	1.19	0.50	menopausal status, hormone use, parental history MI, vitamin use, alcohol, aspirin use, exercise, SFA, linoleic, vitamin C and E intake, total energy.	
The Zutphen Elderly Study Oomen <i>et al.</i> 2001	Incident CAD	<i>ALA</i>	1.68	0.86	3.29	0.17	age, BMI, smoking, vitamin supplement use, SFA, trans fat, linoleic, EPA,DHA other cis unPolyunsaturated fatty acids, protein, energy, dietary cholesterol, fiber, Vitamin E, vitamin C, B-carotene, alcohol intake.	1.51	0.75	3.04	0.31	as per MV1, plus <i>trans</i> fat intake	
	Fatal CAD	<i>ALA</i>	1.59	0.62	4.08	0.26							
	Incident CAD	<i>ALA from sources with trans fats</i>	2.20	1.30	3.71	0.004							
	Incident CAD	<i>ALA from sources without trans fats</i>	1.17	0.63	2.15	0.63							
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>Cholesterol Ester FA Linoleic</i>	1.77	0.48	6.53	0.496	Age, gender, diagnostic category, energy intake, serum cholesterol, serum TAG, diabetes, BMI, education.						
	CAD Death or AMI	<i>Cholesterol Ester FA Linoleic</i>	0.82	0.31	2.16	0.435							
	Revascularization	<i>Cholesterol Ester FA Linoleic</i>	0.98	0.4	2.4	0.939							
	CAD Death	<i>Cholesterol Ester FA ALA</i>	0.44	0.1	1.93	0.304							
	CAD Death or AMI	<i>Cholesterol Ester FA ALA</i>	0.95	0.35	2.57	0.94							
	Revascularization	<i>Cholesterol Ester FA ALA</i>	1.56	0.6	4.09	0.495							
The Nurses Health Study Albert <i>et al.</i> 2005	Sudden Cardiac Death		0.63	0.41	0.98	0.02	Age, calories, smoking, BMI, alcohol, menopausal status, hormone use, physical activity, multivitamin use, vitamin E supplement use, history hypertension, hypercholesterolemia, family history MI, history prior CVD.	0.6	0.37	0.96	0.02	further adjusted for trans fat, PUFA to SAFA ratio, omega-3 fatty acids.	
	Other CHD Death	<i>ALA</i>	0.93	0.73	1.19	0.74	1.01	0.77	1.33	0.74			
	Nonfatal MI		1.05	0.9	1.23	0.62	1.09	0.92	1.29	0.38			
The Nurses Health Study Oh <i>et al.</i> 2005		<i>whole cohort</i>	0.75	0.6	0.92	0.004	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension,menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, SFA, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.						
		Incident CHD	<i>age < 65 y</i>	0.66	0.5	0.85							0.002
			<i>age > 65 y</i>	0.96	0.66	1.39							0.60
			<i>BMI < 25</i>	0.91	0.67	1.26							0.43
			<i>BMI > 25</i>	0.63	0.47	0.84							0.002

Supplementary Table 14. Relative Risks of Coronary Heart Disease and Polyunsaturated Fat, Comparing Highest Intakes to Lowest Intakes.

Study Name			Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)			
			Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend
The Strong Heart Study Xu <i>et al.</i> 2006	CHD death	47 - 59 y	3.5%TE	10.4%TE				
	CHD Death	60 - 79 y	3.4%TE	9.5%TE	<i>no age-adjusted results</i>			
	CHD event	whole cohort	3.5%TE	9.9%TE				
	Nonfatal CHD	whole cohort	3.5%TE	9.9%TE				
The ARIC Study Yamagishi <i>et al.</i> 2008	Heart Failure	<i>HR for fatty acid concentrations</i>	<i>CE n-6 PUFA</i>		0.34	0.2	0.57	<0.001
			<i>CE linoleic</i>		0.54	0.34	0.88	0.00
			<i>PL n-6 PUFA</i>		0.54	0.34	0.88	0.001
			<i>PL linoleic</i>		0.57	0.36	0.92	0.009
			<i>CE ALA</i>		0.99	0.63	1.53	0.81
			<i>PL ALA</i>		0.97	0.61	1.54	0.88

Supplementary Table 14.

Study Name			Multivariate Results 1 (Lowest intake is comparison group)				Multivariate Results 2 (Lowest Intake is Comparison Group)				
			RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend
The Strong Heart Study Xu <i>et al.</i> 2006	CHD death	47 - 59 y	1.47	0.55	3.96	0.78					
	CHD Death	60 - 79 y	0.69	0.35	1.36	0.30	gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, alcohol				
	CHD event	whole cohort	1.12	0.82	1.54	0.69					
	Nonfatal CHD	whole cohort	1.18	0.81	1.71	0.55					

The ARIC Study
Yamagishi *et al.* 2008

ABBREVIATIONS: PUFA, Polyunsaturated fat; CHD, coronary heart disease; MI, myocardial infarction; CI, confidence interval; RR, relative risk; TE, total energy; BMI, Body Mass Index; SFA, saturated fat; PUFA, polyunsaturated fat; MUFA, monounsaturated fat; LDL, LDL-cholesterol; HDL, HDL-cholesterol; ALA, alpha-linolenic; TAG, triacylglycerol; NECP, National Cholesterol Education Project; CE, cholesterol Ester; PL, phospholipid.

Supplementary Table 15. Relative Risks of Coronary Heart Disease and Incremental Change in Polyunsaturated Fat Intake.

Study Name	Endpoint			Effect of increasing PUFA intake				adjusted for:
				RR	lower 95%CI	upper 95%CI	p-value	
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1996	Total MI	<i>Linoleic</i>	Increase by 5%	0.97	0.71	1.32	ns	age, BMI, smoking, alcohol, physical activity, history hypertension or high blood cholesterol, family history MI, energy intake, fibre, total fat
	Fatal CHD			0.93	0.52	1.69	ns	
Esry, Joseph & Grover 1996	CHD Death	<i>age 30 - 59 y</i>	one unit increase PUFA	0.99	0.9	1.08	ns	age, gender, energy intake, serum lipids, systolic blood pressure, smoking, BMI glucose intolerance
		<i>age 60 - 79 y</i>	one unit increase PUFA	1.00	0.90	1.10	ns	
The Nurses Health Study Hu <i>et al.</i> 1997	Incident CHD		Each 5%E increase	0.74	0.55	1.00	0.05	Fully adjusted
AT/BC Pietinen <i>et al.</i> 1997	Incident CHD	<i>Linoleic</i>	5g increase	0.90	0.65	1.26	0.67	Age, treatment group, smoking, BMI, blood pressure, intakes of energy, alcohol, fiber, education, physical activity.
		<i>Linolenic</i>	1.6g increase	0.75	0.52	1.1	0.05	
The Zutphen Elderly Study Oomen <i>et al.</i> 2001	CHD Event	<i>linolenic</i>	0.13%E increase	0.90	0.65	1.26	0.67	Age, BMI, smoking, alcohol, vitamin supplement use, SAFA, trans, linoleic, EPA and DHA and other unsaturated fat intake, protein and energy and dietary cholesterol intakes, fiber, vitamin E, C and β -carotene.
	CHD Death	<i>linolenic</i>	0.13%E increase	0.75	0.52	1.1	0.05	
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD death		1 standard deviation increase	0.92	0.55	1.54	0.758	age, gender, diagnostic category, energy intake, serum cholesterol TAG, diabetes, BMI, education
	CAD death or AMI		1 standard deviation increase	1.08	0.78	1.51	0.642	
	Revascularization		1 standard deviation increase	1.1	0.83	1.44	0.516	
The Cardiovascular Health Study, Nested Case-Control Lemaitre <i>et al.</i> 2003	IHD Death	<i>Linoleic</i>	1 SD increase in PL concentration	0.48	0.24	0.96	0.04	gender, age, clinical site, entry cohort, systolic bloodpressure, weight, education, fasting plasma glucose
	Nonfatal MI	<i>Linolenic</i>	1 SD increase in PL concentration	1.07	0.81	1.41	0.60	
	IHD Death	<i>Linoleic</i>	1 SD increase in PL concentration	2.42	1.07	5.43	0.03	
	Nonfatal MI	<i>Linolenic</i>	1 SD increase in PL concentration	1.10	0.83	1.46	0.50	
MONICA-1 & MONICA-II Jakobsen <i>et al.</i> 2003	CHD Event	<i>women</i>	5% Increase	0.89	0.5	1.57	fiber, dietary cholesterol, systolic blood pressure, BMI, cohort, fat, intake, energy intake, protein intake, family history MI, smoking, physical activity, education, alcohol	
		<i>men</i>	5% Increase	0.8	0.55	1.15		
The Nurses Health Study Albert <i>et al.</i> 2005	Sudden Cardiac Death							not clear
	Other CHD Death Nonfatal MI	<i>ALA</i>	0.1% Increase	0.88	0.8	0.98		
The Health Professional's Follow-up Study (Mozaffarian <i>et al.</i> 2005)	Sudden Cardiac Death	<i>ALA</i>	1g /day	1.15	0.69	1.93	Age, BMI, physical activity, smoking, history diabetes, hypertension, hypercholesterolemia, aspirin use, alcohol intake, protein SFA fiber MUFA ALA or EPA/DHA	
	Nonfatal MI	<i>ALA</i>	1g /day	0.82	0.67	1.02		
	CHD Event	<i>ALA</i>	1g /day	0.84	0.71	1.00		
	Sudden Cardiac Death	<i>n-6 PUFA</i>	5g / day	0.82	0.63	1.06		
	Nonfatal MI	<i>n-6 PUFA</i>	5g / day	1.00	0.91	1.11		
CHD Event	<i>n-6 PUFA</i>	5g / day	0.96	0.89	1.04			
The Nurses Health Study Oh <i>et al.</i> 2005	CHD Event		Increase by 3%	0.75	0.6	0.92	0.004	Age, BMI, smoking, alcohol intake, parental history MI, history hypertension, menopausal status and hormone use, aspirin, multivitamin and vitamin E supplement use, physical activity, energy, protein, cholesterol, MUFA, PUFA, trans fat, ALA, marine n-3, cereal fiber and fruits and vegetables.

The Strong Heart Study Xu <i>et al.</i> 2006 (results by age)	CHD death	47 - 59 y	Increase of 5%TE	1.25	0.76	2.06	Gender, age, study centre, diabetes, BMI, HDL, LDL, TAG, smoking, alcohol, hypertension, percent energy from protein, total energy intake.
		60 - 79 y	Increase of 5%TE	0.78	0.52	1.16	

ABBREVIATIONS: PUFA, polyunsaturated fat; MUFA, monounsaturated fat; SAFA, saturated fat; TE, total energy; TAG, triacylglycerol; ALA, alpha linolenic; DHA, docosahexaenoic acid; EPA, eicosapentaenoic; MI, Myocardial Infarction; CHD, coronary heart disease; RR, relative risk; CI, confidence interval; BMI, Body Mass Index; AMI, acute MI.

Supplementary Table 16. Prospective Cohorts and Nested Case-Control Studies Investigating Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intakes and Coronary Heart Disease.

Study Name	Country	Start of Study (year)	Follow-up (years)	n	Participants	Men (%)	Age at Baseline (years)	Exclusions	Diet assessment method	CHD Endpoint	n events	Event Rate (%)
The Zutphen Study Kromhout <i>et al.</i> 1985	Netherlands	1960	20	852	Community based sample	100	40-59	Previous CHD	Dietary history	CHD Death	78	9.2
Norell <i>et al.</i> 1986	Sweden	1967	14	10,966	Community based sample		40 - 80	Previous symptoms of CVD.	FFQ	CHD Death	800	7.3
The Health Professionals Follow-up Study Asherio <i>et al.</i> 1995	USA	1986	6y	44,895	Male health workers	100	40-75	CVD at baseline, inadequate completion of FFQ, unlikely Energy intake	FFQ	Total MI Fatal CHD	734 229	1.6 0.5
Physicians' Health Study Morris <i>et al.</i> 1995	USA	1982	4y	21,185	Male Physicians	100	40-84	History of MI, stroke, TIA, cancer, liver or renal disease, peptic ulcer, gout, current use of aspirin, other platelet active drugs or NSAIDs, reported CV event or died in 1st year, incomplete completion of FFQ	Semi-quantitative FFQ	Total MI	284	1.3
The Seven Countries Study Kromhout <i>et al.</i> 1995	7 countries	1958	25y	12,763	Various	100	40-59	Not provided.	Weighed diet records.	CHD Death		5 - 28%
Ohrvall <i>et al.</i> 1996	Sweden	1970	19	2,016	Men living in Uppsala no previous CHD (82% response rate)	100	50	Presence of CHD (but men with hypertension, hyperlipidemia, or impaired glucose intolerance remained in study and treatment initiated).	Serum Fatty Acid concentrations collected from 1,746 subjects (87%)	MI	180	9
The AT/BC Study Pietenen <i>et al.</i> 1997	Finland	1985	6.1	21,930	Male smokers	100	50-69	Previous cancer, serious disease, use of anti-coagulants, excess use of vit E, b-carotene or vit A, prior MI, DM, angina, or missing data on CV risk factors	FFQ completed at baseline	Major Coronary Events Coronary Death	1,399 581	6.4 2.6
The Chicago Western Electric Study Davignus <i>et al.</i> 1997	US	1957	30	1,822	Employees of the Chicago Western Electric		40-55	Did not attend second follow-up (one year after starting), prior history CHD, missing data.	Dietary History completed at baseline and one year later.	Fatal MI CHD Death	293 430	
Mann <i>et al.</i> 1997	UK	1981	13.3	10,802	Vegetarians and non-vegetarian friends and relatives	38	mean 34y	not clear	FFQ completed at baseline	IHD Death	64	0.6
Physicians' Health Study, Nested Case-Control Albert <i>et al.</i> 1998	USA	1982	17y	22,071	Male Physicians	100	40-84	History of MI, stroke, TIA, cancer	Blood fatty acid concentrations	Sudden Cardiac Death	94 cases, 184 controls	

Supplementary Table 16. Prospective Cohorts and Nested Case-Control Studies Investigating Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intakes and Coronary Heart Disease.

Study Name	Country	Start of Study (year)	Follow-up (years)	n	Participants	Men (%)	Age at Baseline (years)	Exclusions	Diet assessment method	CHD Endpoint	n events	Event Rate (%)
The Seven Countries Study	Italy	1960	20y	1,097	Men aged 40-59	100	40-59	Unclear			116	10.6
Oomen <i>et al.</i> 2000	Netherlands	1960	20y	553	Men aged 40-59	100	40-59	Unclear	dietary, cross-checked dietetic interview (habitual food consumption) and food frequency checklist	CHD Death	105	20
	Finland	1959	20y	1,088	men aged 40-59	100	40-59	Unclear			242	22
The Kuopio Ischaemic Heart Disease Risk Factor Study Rissanen <i>et al.</i> 2000	Finland	1984	10	1,871	Males, otherwise unclear	100	42-60	Unclear	Serum fatty acids.	Acute coronary event	194	10.4
Yuan <i>et al.</i> 2001	China	1986	9.8y	18,037	Community based sample.	100	45-64	History of cancer	FFQ - validated in subgroup from 24-hr recall	Fatal CHD	113	0.6
Swedish Nested Case-Control Hallgren <i>et al.</i> 2001	Sweden	1985	9 y	405	Community based sample.	79	mean 55	Cancer, inadequate amount of blood collected for FA analysis. Controls - previous AMI or stroke.	Erythrocyte Fatty Acid Concentrations	MI	78 cases	156 controls
The Nurses Health Study										CHD Event	1,513	1.8
Hu <i>et al.</i> 2002	USA	1976	16y	84,688	Nurses	0	30-55	Excluded those with previous cancer, CVD or poor completion of FFQ	Semi-quantitative FFQ	Fatal CHD	484	0.6
										Nonfatal MI	1,029	1.2
The Physician's Health Study Abler <i>et al.</i> 2002	USA	1982	17 y	22,071	Male physicians, no previous CHD	100	40 - 84	History of MI, stroke, transient ischemic attack, cancer	Blood Fatty Acid concentrations, collected at baseline	Sudden cardiac death	94 cases	NA
The Cardiovascular Health Study, Nested Case-Control Lemaitre <i>et al.</i> 2003	US	1989		5,201	Community based sample.		≥ 65 y	IHD and stroke at baseline, & use of fish oil supplements at baseline.	Plasma Phospholipid fatty acid concentrations	Fatal CHD	54 cases	
										Nonfatal MI	125 cases	
EUROASPIRE Erkkila <i>et al.</i> 2003	Finland	1991	5	415	Patients with clinically established CAD	68	<71	18% declined to participate	Serum cholesterol ester and serum phospholipids fatty acids	CAD Death	16	4
										CAD Death or AMI	34	8.5
										Revascularization	38	9.5
MONICA I, II & III Osler <i>et al.</i> 2003	Denmark	1982	5 - 15	7,610	Community based sample.	53	30-70	Incomplete data. No other exclusions reported.	FFQ	CHD Event	491	6.4

Supplementary Table 16. Prospective Cohorts and Nested Case-Control Studies Investigating Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intakes and Coronary Heart Disease.

Study Name	Country	Start of Study (year)	Follow-up (years)	n	Participants	Men (%)	Age at Baseline (years)	Exclusions	Diet assessment method	CHD Endpoint	n events	Event Rate (%)
The Cardiovascular Health Study Mozaffarian et al. 2003	US	1989	9.3y	3,910	Community based sample.		≥ 65 y	CVD at baseline, incomplete dietary data.	FFQ, and plasma phospholipid fatty acid concentrations.	IHD Death	247	6.3
										Arrhythmic IHD Death	148	3.8
										Nonfatal MI	363	9.3
The Atherosclerosis Risk in Communities Study Wang et al. 2003	US	1987	10.7y	3,591	Community based sample.	46		Prevalent CHD.	Cholesterol Ester & Phospholipid fatty acid concentrations	CHD Event	282	7.8
The Iowa Women's Health Study Folsom & Demissie 2004	US	1986	around 11 y	41,836	Community based sample.	0	55-69	Previous CVD or cancer.	FFQ	CHD Death	922	2.2
The Health Professionals Follow-up Study Mozaffarian et al. 2005	USA	1986	14 y	45,722	Male health workers	100	40-75	CVD at baseline, inadequate completion of FFQ, unlikely Energy intake	FFQ	Nonfatal MI	1,521	3.3
										Sudden Cardiac Death	218	0.5
										CHD Event	2,306	5
NIPPON DATA80 Nakamura et al. 2005	Japan	1980	19	8,879	Community based sample.	44	30 years and over	Past history CAD, stroke, cancer or significant comorbidities, missing information and loss to follow-up.	FFQ	CHD Death	124	1.4
Jarvinen et al. 2006	Finland	1966	21.5	5,220	Community based sample.	53	30-79	No CHD.	Dietary History	CHD Death men	335	12
										CHD Death women	163	6.7
The Japan Public Health Center-Based Study Cohort 1 Iso et al. 2006	Japan	1990	11	41,578	Community based sample.		40-59	Previous diagnosis cancer or CVD.	FFQ completed baseline at 5 years later	CHD Event	258	0.6
										MI	221	0.5
										Sudden Cardiac Death	37	0.1
The Nurses Health Study, Nested case-control Sun et al. 2008	US	1976	6	32,826	Nurses		30-55	Previous CHD.	Plasma fatty acid concentrations	Nonfatal MI	146 cases	
Zutphen Study Steppel et al. 2008	Netherlands	1960	40	1,373	Community based sample.		40-59	No previous CHD	Dietary History	CHD Death	348	25
The ARIC Study Yamagishi et al. 2008	US	1987	14.3	3,592	Community based sample.	46	45 - 64	History CHD, stroke, or heart failure, or those without plasma fatty acid data, and non-white subjects.	Plasma Fatty Acids	Heart Failure	195	5.4

Supplementary Table 16. Prospective Cohorts and Nested Case-Control Studies Investigating Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intakes and Coronary Heart Disease.

Study Name	Start of Study	Follow-up	Men	Age at Baseline	Exclusions	Diet assessment method	CHD Endpoint	n events	Event Rate (%)
Author, year published	Country	(year)	(years)	n	Participants	(%)	(years)		

Abbreviations: CHD, coronary heart disease; CVD, cardiovascular disease; MI, myocardial infarction; DM, diabetes melitis; TIA, transient ischemic attack; IHD, ischemic heart disease; AMI, acute myocardial infarction; CAD, coronary artery disease; FFQ, food frequency questionnaire.

Supplementary Table 17. Results from the Prospective Cohorts Investigating Coronary Heart Disease and Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intake.

Study Name		Intakes for Relative Risk			Age-adjusted results (Lowest Intake is Comparison Group)			
Author, year published	Endpoint		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend
The Zutphen Study Kromhout <i>et al.</i> 1985	CHD Death	<i>fish consumption</i>	0	≥ 45 g/day	<i>age adjusted RR not reported</i>			
Norrel <i>et al.</i> 1986	CHD Death	<i>fish intake</i>	low	high	0.85	0.69	1.06	
	Fatal MI				0.7	0.5	0.98	
The Adventist Health Study Fraser <i>et al.</i> 1992	Nonfatal MI	<i>fish intake</i>	Never	≥ 1 serve/week				
	Fatal CHD	<i>fish intake</i>						
	CABG	<i>Fish intake</i>	<1 / month	≥ 6/wk	1.73	1.1	2.72	0.01
	Nonfatal MI	<i>Fish intake</i>	<1 / month	≥ 6/wk	0.95	0.63	1.42	0.97
	Fatal CHD	<i>Fish intake</i>	<1 / month	≥ 6/wk	0.82	0.45	1.52	0.19
	any MI	<i>Fish intake</i>	<1 / month	≥ 6/wk	0.91	0.64	1.28	0.47
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1995	Any CHD	<i>Fish intake</i>	<1 / month	≥ 6/wk	1.16	0.89	1.53	0.17
	CABG	<i>Omega 3 intake</i>	0.01 - 0.11 g/day	0.42 - 6.52 g/day	1.27	1.01	1.6	0.01
	Nonfatal MI	<i>Omega 3 intake</i>	0.01 - 0.11 g/day	0.42 - 6.52 g/day	1.13	0.89	1.45	0.69
	Fatal CHD	<i>Omega 3 intake</i>	0.01 - 0.11 g/day	0.42 - 6.52 g/day	1.06	0.72	1.55	1.00
	any MI	<i>Omega 3 intake</i>	0.01 - 0.11 g/day	0.42 - 6.52 g/day	1.13	0.91	1.39	0.65
	Any CHD	<i>Omega 3 intake</i>	0.01 - 0.11 g/day	0.42 - 6.52 g/day	1.19	1.02	1.39	0.03
	Total MI				1.2	0.6	2.2	0.34
The Physicians Health Study Morris <i>et al.</i> 1995		<i>fish consumption</i>	< 1 serve/week	≥ 5 serves/week				
	Nonfatal MI				1.1	0.6	2.2	0.79
The Seven Countries Study Kromhout <i>et al.</i> 1995	CHD Death	<i>correlation EPA + DHA</i>	<i>r= -0.36 (ns)</i>					
Ohrvall <i>et al.</i> 1996	CHD Death	<i>comparison of mean cholesterol ester fatty acids</i>	<i>EPA</i>	Healthy: 1.35%FA	MI: 1.45%FA	p=0.0778		
			<i>DHA</i>	Healthy: 0.70%FA	MI: 0.72%FA	p=0.32988		

Supplementary Table 17.

Study Name			Multivariate Results 1 (Lowest intake is comparison group)				Multivariate Results 2 (Lowest Intake is Comparison Group)					
Author, year published	Endpoint		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:
The Zutphen Study Kromhout <i>et al.</i> 1985	CHD Death	<i>fish consumption</i>	0.39	0.13	1.15	nr	age, systolic blood pressure, serum total cholesterol, smoking, subscapular skinfold, physical activity, energy intake, dietary cholesterol, prescribed diet, occupation					
Norrel <i>et al.</i> 1986			no multivariate results									
The Adventist Health Study Fraser <i>et al.</i> 1992			1.04	0.55	1.96		Age, gender, smoking, exercise, relative weight, high blood pressure.					
	CABG	<i>Fish intake</i>	1.65	1.03	2.64	0.02						
	Nonfatal MI	<i>Fish intake</i>	0.96	0.63	1.47	0.62						
	Fatal CHD	<i>Fish intake</i>	0.77	0.41	1.44	0.14						
	any MI	<i>Fish intake</i>	0.9	0.63	1.28	0.7						
The Health Professionals Follow-up Study Ascherio <i>et al.</i> 1995	Any CHD	<i>Fish intake</i>	1.14	0.86	1.51	0.19	Age, energy, BMI, smoking, alcohol, hypertension, diabetes, hypercholesterolemia, family history MI, profession.					
	CABG	<i>Omega 3 intake</i>	1.16	0.92	1.47	0.09						
	Nonfatal MI	<i>Omega 3 intake</i>	1.09	0.85	1.41	0.44						
	Fatal CHD	<i>Omega 3 intake</i>	1.03	0.7	1.52	0.94						
	any MI	<i>Omega 3 intake</i>	1.09	0.88	1.35	0.48						
	Any CHD	<i>Omega 3 intake</i>	1.12	0.96	1.31	0.09						
The Physicians Health Study Morris <i>et al.</i> 1995	Total MI	<i>fish consumption</i>	0.9	0.4	1.8	0.72	Age, group assignment, smoking, alcohol, obesity, diabetes, vigorous exercise, parental history MI, history hypertension or hypercholesterolemia, vitamin supplement use, SFA intake.					
	Nonfatal MI		0.8	0.4	1.7	0.79						
The Seven Countries Study Kromhout <i>et al.</i> 1995			no multivariate results									
Ohrvall <i>et al.</i> 1996			no multivariate results									

Supplementary Table 17. Results from the Prospective Cohorts Investigating Coronary Heart Disease and Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intake.

Study Name		Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)					
Author, year published	Endpoint		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
AT/BC Pietinen <i>et al.</i> 1997	CHD Event	<i>omega-3 fish fatty acids</i>	0.2g	0.8g	1.10	0.94	1.30	0.298	
	CHD Death	<i>omega-3 fish fatty acids</i>	0.2g	0.8g	1.23	0.97	1.56	0.130	
	CHD Event	<i>ALA</i>	0.9g	2.5g	0.94	0.8	1.11	0.716	
	CHD Death	<i>ALA</i>	0.9g	2.5g	0.97	0.68	1.12	0.423	
The Chicago Western Electric Study Davignus <i>et al.</i> 1997	CHD Death	<i>Fish intake</i>	0	≥ 35 g/day					
	Fatal MI								
Mann <i>et al.</i> 1997	CHD Death	<i>Fish intake</i>	0	≥ 1 serve/week					
The Physicians Health Study Albert <i>et al.</i> 1998	Sudden Cardiac Death	<i>Fish intake</i>	<1 serve / month	≥ 1 serve / week	0.44	0.22	0.86	0.006	
	Sudden Cardiac Death	<i>Dietary omega-3</i>	< 0.3 g/m	≥ 7.4 g/m	0.4	0.19	0.85	0.13	
	Nonsudden Cardiac Death	<i>Fish intake</i>	<1 serve / month	≥ 1 serve / week					
	CHD Death	<i>Fish intake</i>	<1 serve / month	≥ 1 serve / week					
	MI	<i>Fish intake</i>	<1 serve / month	≥ 1 serve / week	1.02	0.64	1.62	0.75	
The Kuopio Ischaemic Heart Disease Risk Factor Study Rissanen <i>et al.</i> 2000	Acute Coronary Events	<i>serum DHA + DPA</i>	<2.38%	3.08% to 3.58%					
The Seven Countries Study Oomen <i>et al.</i> 2000		<i>Finland</i>	0-19 g/day	≥ 40 g/day	1.39	1.00	1.92	0.05	
	CHD Mortality	<i>Fish intake</i>	<i>Italy</i>	0	≥ 40 g/day	0.56	0.27	1.13	0.11
			<i>The Netherlands</i>	0	≥ 20 g/d	1.13	0.71	1.8	0.6

Supplementary Table 17.

Study Name			Multivariate Results 1 (Lowest intake is comparison group)				Multivariate Results 2 (Lowest Intake is Comparison Group)						
Author, year published	Endpoint		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	
AT/BC Pietinen <i>et al.</i> 1997	CHD Event	<i>omega-3 fish fatty acids</i>	1.15	0.97	1.35	0.12							
	CHD Death	<i>omega-3 fish fatty acids</i>	1.24	0.97	1.58	0.12		1.30	1.01	1.67	0.06		
	CHD Event	<i>ALA</i>	0.99	0.76	1.28	0.77							
	CHD Death	<i>ALA</i>						0.75	0.52	1.1	0.05	further adjusted for trans, cis-MUFA, SFA	
The Chicago Western Electric Study Davignus <i>et al.</i> 1997	CHD Death	<i>Fish intake</i>	0.62	0.4	0.94	0.04	age, education, religion, systolic pressure, serum cholesterol, smoking, BMI, diabetes, ECG abnormalities, energy, cholesterol, SFA, MUFA, PUFA, total protein, vitamins and minerals, alcohol.						
	Fatal MI		0.56	0.33	0.93	0.017							
Mann <i>et al.</i> 1997	CHD Death	<i>Fish intake</i>	1.23	0.7	2.17	ns	age, gender, smoking and social class						
The Physicians Health Study Albert <i>et al.</i> 1998	Sudden Cardiac Death	<i>Fish intake</i>	0.48	0.24	0.96	0.03							
	Sudden Cardiac Death	<i>Dietary omega-3</i>	0.43	0.2	0.93	0.21	age, aspirin and beta carotene treatment assignment, evidence of CVD prior to 12-month questionnaire, BMI, smoking, diabetes, history hypertension or hypercholesterolemia, alcohol, vigorous exercise, vitamin E, vitamin C and multivitamin use.						
	Nonsudden Cardiac Death	<i>Fish intake</i>	1.25	0.46	3.43	0.31							
	CHD Death	<i>Fish intake</i>	0.87	0.48	1.56	0.26							
	MI	<i>Fish intake</i>	1.00	0.62	1.6	0.67							
The Kuopio Ischaemic Heart Disease Risk Factor Study Rissanen <i>et al.</i> 2000	Acute Coronary Events	<i>serum DHA + DPA</i>	0.56	0.35	0.89	0.014	age, examination years, BMI, maximal oxygen uptake, hair mercury content, serum ferritin, serum LDL, blood pressure, serum insulin, ADP-induced platelet aggregation, SES, ischemic findings in exercise test, smoking, place of residence, energy intake.						
The Seven Countries Study Oomen <i>et al.</i> 2000			<i>Finland</i>	1.31	0.94	1.84	0.12	Age, BMI, smoking, energy intake.	1.25	0.89	1.76	0.2	
	CHD Mortality	<i>Fish intake</i>	<i>Italy</i>	0.69	0.34	1.42	0.38		0.67	0.33	1.39	0.33	further adjusted for vegetable and fruit, alcohol, meat, butter, margarine
			<i>The Netherlands</i>	1.16	0.72	1.86	0.55		1.1	0.68	1.79	0.69	

Supplementary Table 17. Results from the Prospective Cohorts Investigating Coronary Heart Disease and Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intake.

Study Name		Endpoint		Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)			
				Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend
Yuan et al. 2001	Acute MI	<i>Fish / Shellfish</i>	< 50 g/w	≥ 200 g/w					
	Acute MI	<i>Fish only</i>	< 30 g/w	≥ 150 g /w					
	Acute MI	<i>Shellfish only</i>	< 10 g/w	≥ 100 g/w					
	Other Ischemic Heart Disease	<i>Fish / Shellfish</i>	< 50 g/w	≥ 200 g/w					
	Other Ischemic Heart Disease	<i>Fish only</i>	< 30 g/w	≥ 150 g /w					
	Other Ischemic Heart Disease	<i>Shellfish only</i>	< 10 g/w	≥ 100 g/w					
	Acute MI	<i>Omega 3 from seafood</i>	< 0.27 g/w	≥ 1.10 g/w					
	Other Ischemic Heart Disease	<i>Omega 3 from seafood</i>	< 0.27 g/w	≥ 1.10 g/w					
Zutphen Elderly Study Oomen et al. 2001	CHD Event	<i>ALA</i>	<0.45%TE	>0.58%TE	2.23	1.32	3.76	0.003	
	CHD Death	<i>ALA</i>	<0.45%TE	>0.58%TE	1.95	0.96	3.94	0.05	
Swedish Nested Case-Control Hallgren et al. 2001	MI	<i>fatty fish consumption</i>	< 1 / week	≥ 1 / week	OR	0.85	0.45	1.62	nr
		<i>Erythrocyte EPA + DHA</i>	≤5.5%FA	> 6.5%FA	OR	0.43	0.21	0.88	0.02
The Nurses' Health study Hu et al. 2002	CHD Event	<i>Fish intake</i>	<1 / month	≥ 5 times / week	0.64	0.48	0.86	<0.001	
	Fatal CHD	<i>Fish intake</i>	<1 / month	≥ 5 times / week	0.55	0.33	0.91	0.01	
	Nonfatal MI	<i>Fish intake</i>	<1 / month	≥ 5 times / week	0.77	0.54	1.11	0.1	
	CHD Event	<i>Omega 3 intake</i>	0.03%TE	0.27%TE	0.52	0.43	0.62	<0.001	
	Fatal CHD	<i>Omega 3 intake</i>	0.03%TE	0.27%TE	0.63	0.45	0.88	<0.001	
	Nonfatal MI	<i>Omega 3 intake</i>	0.03%TE	0.27%TE	0.69	0.55	0.88	<0.001	
The Physicians' Health Study - nested case-control Albert et al. 2002	Sudden Cardiac Death	<i>Total LCPUFA</i>	<i>% blood fatty acids</i>	3.58%	6.87%				

Supplementary Table 17.

Study Name			Multivariate Results 1 (Lowest intake is comparison group)				Multivariate Results 2 (Lowest Intake is Comparison Group)						
			RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	
Yuan et al. 2001	Acute MI	<i>Fish / Shellfish</i>	0.41	0.22	0.78	0.03	age, smoking, total energy intake, education, BMI, alcohol, history hypertension or diabetes						
	Acute MI	<i>Fish only</i>	0.35	0.17	0.72	0.02							
	Acute MI	<i>Shellfish only</i>	0.4	0.14	1.12	0.02							
	Other Ischemic Heart Disease	<i>Fish / Shellfish</i>	0.68	0.32	1.46	0.37							
	Other Ischemic Heart Disease	<i>Fish only</i>	0.92	0.41	2.06	0.34							
	Other Ischemic Heart Disease	<i>Shellfish only</i>	0.58	0.17	1.92	0.99							
	Acute MI	<i>Omega 3 from seafood</i>	0.43	0.23	0.81	0.02							
	Other Ischemic Heart Disease	<i>Omega 3 from seafood</i>	0.71	0.32	1.57	0.68							
Zutphen Elderly Study Oomen et al. 2001	CHD Event	<i>ALA</i>	1.68	0.86	3.29	0.17	Age, BMI, ex-smoking, alcohol intake, use of vitamin supplements, SFA, trans fatty acids, linoleic acid, EPA, DHA, cis MUFA, protein, energy, fiber, vitamin E, vitamin C, beta-carotene.						
	CHD Death	<i>ALA</i>	1.59	0.62	4.08	0.26							
Swedish Nested Case-Control Hallgren et al. 2001	no multivariate results												
The Nurses' Health study Hu et al. 2002	CHD Event	<i>Fish intake</i>	0.66	0.5	0.89	0.001	age, time periods, smoking, BMI, alcohol, menopausal status & postmenopausal hormone use, physical activity, aspirin use, vitamin E supplement use, history hypertension, hypercholesterolemia and diabetes.	0.69	0.52	0.93	0.007		
	Fatal CHD	<i>Fish intake</i>	0.55	0.33	0.9	0.01		0.55	0.33	0.91	0.01		
	Nonfatal MI	<i>Fish intake</i>	0.73	0.51	1.04	0.03		0.77	0.54	1.11	0.1	further adjusted for trans fat, P/S, dietary fiber	
	CHD Event	<i>Omega 3 intake</i>	0.67	0.55	0.81	<0.001		0.69	0.57	0.84	<0.001		
	Fatal CHD	<i>Omega 3 intake</i>	0.63	0.45	0.88	<0.001		0.62	0.44	0.88	<0.001		
	Nonfatal MI	<i>Omega 3 intake</i>	0.69	0.55	0.88	<0.001		0.73	0.57	0.93	0.003		
The Physicians' Health Study - nested case-control Albert et al. 2002	Sudden Cardiac Death	<i>Total LCPUFA</i>	<i>% blood fatty acids</i>	0.31	0.13	0.75	0.004	age and smoking	0.19	0.05	0.71	0.007	further adjusted for treatment group, BMI, diabetes, hypertension, hypercholesterolemia, alcohol, exercise, parental history MI

Supplementary Table 17. Results from the Prospective Cohorts Investigating Coronary Heart Disease and Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intake.

Study Name	Endpoint	Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)					
		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend		
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>fish intake</i>	0	> 57 g/day					
	CAD death or AMI	<i>Fish intake</i>	0	> 57 g/day					
	Revascularization	<i>Fish intake</i>	1	> 57 g/day					
	CAD Death	<i>EPA</i>	<i>mol% serum cholesteryl esters</i>	<1.34%	>2.11%				
	CAD death or AMI	<i>EPA</i>	<i>mol% serum cholesteryl esters</i>	<1.34%	>2.11%				
The Cardiovascular Health Study, Nested Case-Control Lemaitre <i>et al.</i> 2003	Revascularization	<i>EPA</i>		<1.34%	>2.11%				
	IHD Death	<i>Plasma PL</i>	<i>DHA + EPA</i>	cases: 3.3%FA	controls: 3.8%FA		p<0.05		
MONICA I, II & III Osler <i>et al.</i> 2003	Nonfatal MI	<i>Plasma PL</i>	<i>DHA + EPA</i>	cases: 3.6%FA	controls: 3.7%FA		ns		
	CHD Event		<i>fish consumption</i>	1 serve week	≥ 2 serves / week				
	CHD Death		<i>fish consumption</i>	1 serve week	≥ 2 serves / week				
	Incident CHD	<i>CE</i>	<i>EPA</i>	CHD: 0.57%FA	NonCHD: 0.54%FA		ns		
The Atherosclerosis Risk in Communities Study Wang <i>et al.</i> 2003	Incident CHD	<i>CE</i>	<i>DHA</i>	CHD: 0.44%FA	NonCHD: 0.44%FA		ns		
	Incident CHD	<i>PL</i>	<i>EPA</i>	CHD: 0.58%FA	NonCHD: 0.56%FA		ns		
	Incident CHD	<i>PL</i>	<i>DHA</i>	CHD: 2.81%FA	NonCHD: 2.80%FA		ns		
The Iowa Women's Health Study Folsom & Demissie 2004	CHD Death		<i>fish consumption</i>	<0.5 serves/week	≥ 2.5 serves /week	0.95	0.76	1.2	0.02
The Health Professional's Follow-up Study Mozaffarian <i>et al.</i> 2005	Sudden Cardiac Death								
	Nonfatal MI			n-6 <11.2g/d & EPA/DHA <250mg/d	n-6 <11.2g/d & EPA/DHA >250mg/d	1.08	0.94	1.25	
NIPPON DATA80 Nakamura <i>et al.</i> 2005	Total CHD					0.96	0.86	1.08	
	Fatal CHD	<i>Fish intake</i>		1 - 2 /week	2+ /day	0.8	0.31	2.06	0.42

Supplementary Table 17.

Study Name			Multivariate Results 1 (Lowest intake is comparison group)					Multivariate Results 2 (Lowest Intake is Comparison Group)						
			RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:		
Author, year published	Endpoint													
The EUROASPIRE Study Erkkila <i>et al.</i> 2003	CAD Death	<i>fish intake</i>	1.04	0.25	4.31	0.731								
	CAD death or AMI	<i>Fish intake</i>	0.49	0.17	1.41	0.209								
	Revascularization	<i>Fish intake</i>	1.09	0.37	3.17	0.226	age, gender, diagnostic category, energy intake, serum cholesterol, serum TAG, diabetes, BMI, education.							
	CAD Death	<i>EPA</i>	0.31	0.08	1.14	0.034								
	CAD death or AMI	<i>EPA</i>	0.5	0.18	1.38	0.307								
	Revascularization	<i>EPA</i>	0.71	0.3	1.68	0.251								
The Cardiovascular Health Study, Nested Case-Control Lemaitre <i>et al.</i> 2003	OR IHD Death	<i>Plasma PL</i>	0.3	0.12	0.76	0.01	RR ARE FOR 1 SD INCREASE IN INTAKE; Gender, clinical site, entry cohort, age, BP, weight, education fasting plasma glucose.							
	OR Nonfatal MI	<i>Plasma PL</i>	0.97	0.71	1.33	0.8								
MONICA I, II & III Osler <i>et al.</i> 2003	CHD Event	<i>fish consumption</i>	0.93	0.68	1.27	0.55	familial predisposition, smoking status, physical activity, alcohol, education, healthy diet score, total cholesterol, BMI.							
	CHD Death		0.98	0.62	1.52	0.74								
The Atherosclerosis Risk in Communities Study Wang <i>et al.</i> 2003			no multivariate results											
The Iowa Women's Health Study Folsom & Demissie 2004	CHD Death	<i>fish consumption</i>	1.04	0.8	1.34	0.31	age, energy intake, education, physical activity, alcohol, smoking, vitamin use, BMI, WHR, diabetes, hypertension, intake whole grains, fruit & vegetables, red meat, cholesterol, SAFA.							
			0.65	0.47	0.88			BMI, smoking, physical activity, history of diabetes, hypertension or hypercholesterolemia, aspirin use, alcohol use, protein, SFA, fiber, MUFA, trans, energy intake, ALA.						
			1.16	0.99	1.36									
The Health Professional's Follow-up Study Mozaffarian <i>et al.</i> 2005			1.05	0.92	1.19									
NIPPON DATA80 Nakamura <i>et al.</i> 2005	Fatal CHD	<i>Fish intake</i>	0.86	0.33	2.23	0.51	age, gender, smoking, alcohol, hypertension, BMI, diabetes.	0.91	0.35	2.35	0.54	further adjusted for serum cholesterol		

Supplementary Table 17. Results from the Prospective Cohorts Investigating Coronary Heart Disease and Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intake.

Study Name		Intakes for Relative Risk			Age-adjusted results (Lowest Intake is Comparison Group)				
Author, year published	Endpoint		Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
Jarvinen <i>et al.</i> 2006	CHD Death	<i>Fish intake men</i>	≤ 11 g/day	≥ 63 g/day	1.24	0.88	1.75	0.23	
		<i>seawater fish men</i>	≤ 1 g/day	≥ 23 g/day	1.29	0.93	1.79	0.3	
		<i>lake fish men</i>	≤ 3 g/day	≥ 42 g/day	1.43	1.02	1.99	0.46	
	CHD Death	<i>LCPUFA men</i>	≤ 0.17 g/day	≥ 0.60 g/day	1.21	0.87	1.69	0.16	
		<i>Fish intake women</i>	≤ 8 g/day	≥ 41 g/day	0.63	0.39	1.02	0.04	
		<i>seawater fish women</i>	≤ 1 g/day	≥ 19 g/day	0.73	0.44	1.18	0.52	
		<i>lake fish women</i>	≤ 1 g/day	≥ 23 g/day	0.8	0.49	1.3	0.28	
		<i>LCPUFA women</i>	≤ 0.11 g/day	≥ 0.37 g/day	0.83	0.52	1.31	0.63	
JPHC Study	CHD	<i>Fish intake</i>	23 g/day	180 g/day	HR	0.47	0.32	0.69	0.001
	Total MI	<i>Fish intake</i>	23 g/day	180 g/day		0.5	0.22	0.56	<0.001
	Sudden Cardiac Death	<i>Fish intake</i>	23 g/day	180 g/day		1.6	0.63	4.06	0.04
	Nonfatal CHD	<i>Fish intake</i>	23 g/day	180 g/day		0.31	0.19	0.51	<0.001
	Fatal CHD	<i>Fish intake</i>	23 g/day	180 g/day		1.4	0.65	3.01	0.09
Iso <i>et al.</i> 2006	CHD	<i>Omega 3 intake</i>	0.3 g/day	2.1 g/day		0.46	0.32	0.68	0.001
	Total MI	<i>Omega 3 intake</i>	0.3 g/day	2.1 g/day		0.35	0.22	0.55	<0.001
	Sudden Cardiac Death	<i>Omega 3 intake</i>	0.3 g/day	2.1 g/day		1.65	0.65	4.19	0.03
	Nonfatal CHD	<i>Omega 3 intake</i>	0.3 g/day	2.1 g/day		0.28	0.17	0.46	<0.001
	Fatal CHD	<i>Omega 3 intake</i>	0.3 g/day	2.1 g/day		1.79	0.82	3.87	0.03
The Zutphen Study	CHD Death	<i>Fish intake</i>	0	22g / day (1-2 serves / week)		0.7	0.46	1.06	
	CHD Death	<i>EPA + DHA</i>	0	> 250 mg		0.64	0.4	1.02	0.33
	CHD Death	<i>Fatty Fish</i>	0	7 g / day		0.87	0.64	1.16	
Streppel <i>et al.</i> 2008	CHD Death	<i>Lean fish</i>	0	yes		0.98	0.71	1.37	
	Sudden Cardiac Death	<i>Fish intake</i>	0	22g / day (1-2 serves / week)		0.94	0.37	2.36	
	Sudden Cardiac Death	<i>EPA + DHA</i>	0	> 250 mg		0.72	0.26	2.05	
	Sudden Cardiac Death	<i>Fatty Fish</i>	0	7 g / day		0.44	0.27	0.74	
	Sudden Cardiac Death	<i>Lean fish</i>	0	yes		1.14	0.59	2.19	

Supplementary Table 17.

Study Name		Multivariate Results 1 (Lowest intake is comparison group)						Multivariate Results 2 (Lowest Intake is Comparison Group)					
Author, year published	Endpoint		RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	
Jarvinen <i>et al.</i> 2006		<i>Fish intake</i>	<i>men</i>	1.00	0.7	1.43	0.83						
	CHD Death	<i>seawater fish</i>	<i>men</i>	1.09	0.77	1.54	0.93						
		<i>lake fish</i>	<i>men</i>	1.21	0.85	1.73	0.7						
		<i>LCPUFA</i>	<i>men</i>	0.96	0.68	1.38	1.00	Age, energy intake, area, BMI, serum cholesterol, blood pressure, smoking, occupation, diabetes.					
	CHD Death	<i>seawater fish</i>	<i>women</i>	0.59	0.36	0.99	0.02						
		<i>lake fish</i>	<i>women</i>	0.7	0.41	1.18	0.39						
		<i>LCPUFA</i>	<i>women</i>	0.75	0.45	1.26	0.37						
JPHC Study Iso <i>et al.</i> 2006	CHD	<i>Fish intake</i>		0.63	0.38	1.04	0.25						
	Total MI	<i>Fish intake</i>		0.47	0.26	0.85	0.03						
	Sudden Cardiac Death	<i>Fish intake</i>		1.14	0.36	3.63	0.15						
	Nonfatal CHD	<i>Fish intake</i>		0.43	0.23	0.81	0.02						
	Fatal CHD	<i>Fish intake</i>		1.08	0.42	2.76	0.31	age, gender, smoking, alcohol, BMI, hypertension, diabetes, hypercholesterolemia, education, sports at leisure time, fruit, vegetable, SFA, MFUA, n-2 PUFA, cholesterol & total energy intake,.					
	CHD	<i>Omega 3 intake</i>		0.58	0.35	0.97	0.18						
	Total MI	<i>Omega 3 intake</i>		0.43	0.24	0.78	0.02						
Sudden Cardiac Death	<i>Omega 3 intake</i>		1.24	0.39	3.98	0.12							
Nonfatal CHD	<i>Omega 3 intake</i>		0.33	0.17	0.63	0.003							
Fatal CHD	<i>Omega 3 intake</i>		1.54	0.6	3.99	0.1							
The Zutphen Study	CHD Death	<i>Fish intake</i>		0.73	0.47	1.13							
	CHD Death	<i>EPA + DHA</i>		0.65	0.40	1.06	0.270						
	CHD Death	<i>Fatty Fish</i>		0.88	0.65	1.19							
Streppel <i>et al.</i> 2008	CHD Death	<i>Lean fish</i>		1.03	0.73	1.45		Energy, alcohol, wine use, fruit and vegetable consumption, SFA, trans, cis MUFA, PUFA, serum cholesterol lowering diet, smoking, BMI, diabetes, blood pressure, SES					
Sudden Cardiac Death	<i>Fish intake</i>		0.89	0.34	2.3								
Sudden Cardiac Death	<i>EPA + DHA</i>		0.68	0.23	2.02								
Sudden Cardiac Death	<i>Fatty Fish</i>		0.46	0.27	0.78								
Sudden Cardiac Death	<i>Lean fish</i>		1.29	0.65	2.59								

Supplementary Table 17. Results from the Prospective Cohorts Investigating Coronary Heart Disease and Fish Consumption or n-3 Long Chain Polyunsaturated Fat Intake.

Study Name		Endpoint		Intakes for Relative Risk		Age-adjusted results (Lowest Intake is Comparison Group)				
				Lowest Intake	Highest Intake	RR	Lower 95%CI	Upper 95%CI	p-trend	
The ARIC Study Yamagishi <i>et al.</i> 2008	Heart Failure	<i>Cholesterol Ester FA</i>	<i>LCPUFA men</i>	NR	NR	HR	1.49	0.84	2.63	0.4
		<i>Cholesterol Ester FA</i>	<i>LCPUFA women</i>	NR	NR	HR	0.42	0.19	0.92	0.09
		<i>Cholesterol Ester FA</i>	<i>EPA</i>	NR	NR	HR	1.37	0.85	2.2	0.26
		<i>Cholesterol Ester FA</i>	<i>DHA men</i>	NR	NR	HR	1.3	0.73	2.32	0.47
		<i>Cholesterol Ester FA</i>	<i>DHA women</i>	NR	NR	HR	0.21	0.1	0.44	<0.001
		<i>Phospholipid FA</i>	<i>LCPUFA men</i>	NR	NR	HR	0.99	0.55	1.77	0.43
		<i>Phospholipid FA</i>	<i>LCPUFA women</i>	NR	NR	HR	0.24	0.11	0.54	<0.001
		<i>Phospholipid FA</i>	<i>EPA</i>	NR	NR	HR	1.61	0.98	2.64	0.06
		<i>Phospholipid FA</i>	<i>DHA men</i>	NR	NR	HR	1.17	0.66	2.07	0.51
		<i>Phospholipid FA</i>	<i>DHA women</i>	NR	NR	HR	0.16	0.07	0.4	<0.001
The Nurses Health Study, Nested Case-Control Sun <i>et al.</i> 2008	Nonfatal MI	<i>Plasma FA</i>	<i>Total LCPUFA</i>	Cases: 2.74%FA	Controls: 3.04%FA	p=0.0004				
		<i>Plasma FA</i>	<i>EPA</i>	Cases:0.41%FA	Controls: 0.44%FA	p=0.0006				
		<i>Plasma FA</i>	<i>DPA</i>	Cases: 0.41%FA	Controls: 0.44%FA	p=0.001				
		<i>Plasma FA</i>	<i>DHA</i>	Cases: 1.43%FA	Controls: 1.58%FA	p=0.006				
		<i>Erythrocyte FA</i>	<i>Total LCPUFA</i>	Cases: 8.99%FA	Controls: 9.36%FA	p=0.0.05				
		<i>Erythrocyte FA</i>	<i>EPA</i>	Cases: 3.66%FA	Controls: 3.77%FA	p=0.16				
		<i>Erythrocyte FA</i>	<i>DPA</i>	Cases: 1.76%FA	Controls: 1.85%FA	p=0.002				
		<i>Erythrocyte FA</i>	<i>DHA</i>	Cases: 3.57%FA	Controls: 3.74%FA	P=0.09				

Supplementary Table 17.

Study Name		Multivariate Results 1 (Lowest intake is comparison group)					Multivariate Results 2 (Lowest Intake is Comparison Group)					
Author, year published	Endpoint	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	RR	Lower 95%CI	Upper 95%CI	p-trend	Adjusting for:	
The ARIC Study Yamagishi <i>et al.</i> 2008		no multivariate results										
The Nurses Health Study, Nested Case-Control Sun <i>et al.</i> 2008	Nonfatal MI	<i>Plasma FA</i>	<i>Total LCPUFA</i>	0.38	0.16	0.92	0.03	age at blood draw, smoking, fasting status, BMI, postmenopausal status and hormone use, physical activity, alcohol intake, total fat intake, parental history MI, history hypertension or hypercholesterolemia or diabetes, ALA in blood and matching factors.				
		<i>Plasma FA</i>	<i>EPA</i>	0.23	0.09	0.55	0.00					
		<i>Plasma FA</i>	<i>DPA</i>	0.40	0.20	0.82	0.00					
		<i>Plasma FA</i>	<i>DHA</i>	0.46	0.18	1.16	0.07					
		<i>Erythrocyte FA</i>	<i>Total LCPUFA</i>	0.86	0.28	2.58	0.34					
		<i>Erythrocyte FA</i>	<i>EPA</i>	0.97	0.28	3.28	0.84					
		<i>Erythrocyte FA</i>	<i>DPA</i>	0.46	0.21	1.01	0.06					
		<i>Erythrocyte FA</i>	<i>DHA</i>	0.65	0.27	1.57	0.27					

Abbreviations: EPA, eicosapentaenoic acid; DHA, docosahexaenoic acid; CHD, coronary heart disease; MI, myocardial infarction; CABG, coronary artery bypass graft; ns, not significant; wk, week; RR, relative risk; CI, confidence interval; FA, fatty acids; BMI, body mass index; SFA, saturated fat; ALA, alpha-linolenic; DPA, Docosapentaenoic acid; ECG, electrocardiogram; MUFA, monounsaturated fat; PUFA, polyunsaturated fat; CVD, cardiovascular disease; SES, socio-economic status; LCPUFA, long chain polyunsaturated fat; P/S; polyunsaturated to saturated fat ratio; CE, cholesterol ester; PL, phospholipid.

Supplementary Table 18.

Randomized Controlled Trials of Fat Modified Diets and Coronary Heart Disease

Study Name		Country	Start of Study	Follow-up (years)	Primary or Secondary Prevention	Endpoint	<i>n</i> events / <i>n</i> at risk		Men (%)	Age at Baseline (years)	Physician/Reviewer	Goals of Intervention
Author, Year	Country						Intervention,	Control				
London Corn & Olive Rose, Thomson, Williams 1965	UK	1960	2	Secondary	CHD Event: corn	15 / 28	11 / 24	not noted	mean 56y	Unclear if physician blinded	80g of either corn oil or olive oil per day. Instructed to avoid fried foods, fatty meat, sausages, pastry, ice-cream, cheese, cakes. Milk, butter and eggs restricted.	
					CHD Event: olive	11 / 26	11 / 24					
London Low Fat Ball <i>et al.</i> 1965	UK	1957	3.0	Secondary	Reinfarction	42 / 123	44 / 129	100	mean 45	physician blinded	14g butter, 84g meat, 1 egg, 56g cottage cheese and skimmed milk. Given dietary advice to reduce fat to 40g/day. Overweight participants (15% of group) given weight-loss diets.	
The Oslo Diet-Heart Study Leren 1966	Norway	1956	4.3	Secondary	Fatal MI	10 / 206	23 / 206	100	30 - 64	not clear	Cholesterol lowering diet: low in SFA and cholesterol, high in PUFA (details not provided in this report)	
					Sudden Death	27 / 206	27 / 206					
					Non-Fatal MI	24 / 206	31 / 206					
					Major CHD relapse (above events combined)	61 / 206	81 / 206					
MRC Soya trial Morris <i>et al.</i> 1968	UK	1960	4	Secondary	CHD Death	15 / 199	14 / 194	100		Physicians may not have been blinded, but review committee were.	Saturated fats removed from diet as far as possible, and replaced with 85g soya-bean oil daily.	
					CHD Event	62 / 199	74 / 194					
The Veterans Administration trial Dayton <i>et al.</i> 1969	US	1959	3.7	Primary	Sudden Cardiac Death	18 / 422	27 / 424	100	over 55y	double-blinded	Keep total fat the same, but decrease SFA and increase unsaturated fat, so that iodine value of fat was 100.	
				Fatal MI	23 / 422	23 / 424						
				Non-Fatal MI	19 / 422	28 / 424						
					Combined total events (# of men with event)	52 / 422	65 / 424					
The Finnish Mental Hospital Study Turpeinen <i>et al.</i> 1979	Finland	1959	6 yr then cross-over	Primary	CHD Death	3.0 / 1,000 person year	6.1 / 1,000 person years	100	34-64y	? Not blinded	Total fat to remain unchanged, replace saturated fats (mainly dairy) with unsaturated fat (soybean oil in skim milk, and replacing butter	
					CHD Event	4.2 / 1,000 person years	12.7 / 1,000 person years					
The Finnish Mental Hospital Study Miettinen <i>et al.</i> 1983	Finland	1959	6 yr then cross-over	Primary	CHD Death	3 / 372	3 / 341	0	34-64y	? Not blinded	Total fat to remain unchanged, replace saturated fats (mainly dairy) with unsaturated fat (soybean oil in skim milk, and replacing butter	

Supplementary Table 18.

Study Name		Estimated Fat Intakes During Study for Intervention Group and Controls					Diet assessment	
Author, Year	Country	Total Fat	SFA	MUFA	PUFA	P/S ratio	Goals of Control	method used
London Corn & Olive Rose, Thomson, Williams 1965	Intervention - corn	50g	-	-	-	-	no advice	Self-administered questionnaire
	Intervention - olive	45g	-	-	-	-		
	control	70g	-	-	-	-		
London Low Fat Ball <i>et al.</i> 1965	at year 1: Intervention:	45g	-	-	-	-	Overweight patients (20% of group) given weight- loss diet (reduced CHO rather than fat).	Weighed diet records completed throughout the trial
	control:	112g	-	-	-	-		
The Oslo Diet-Heart Study Leren 1966	Intervention:	39%TE	8.5%TE	10.1%TE	20.7%TE	2.4	not provided	subgroup did 7-day weighed diet record
	control:	not provided	-	-	-	-		
MRC Soya trial Morris <i>et al.</i> 1968		Dietary details not provided					Usual diet	Weighed 7-day diet records taken at various times during study
The Veterans Administration trial Dayton <i>et al.</i> 1969	Intervention:	10.7g (38.9%TE)		iodine value of fat →	102.4		Keep fat at 40%TE and iodine value at 55.	Food provided to participants.
	control:	111.2g (40.1%TE)		iodine value of fat →	53.5			
The Finnish Mental Hospital Study Turpeinen <i>et al.</i> 1979	Intervention:	110g	27.3g	36.8g	40.5g	1.48	Usual institution diet	food provided
	Control:	107g	54.7g	33.3g	13.6g	0.25		
The Finnish Mental Hospital Study Miettinen <i>et al.</i> 1983	Intervention:	110g	27.3g	36.8g	40.5g	1.48	Usual institution diet	food provided
	Control:	107g	54.7g	33.3g	13.6g	0.25		

Supplementary Table 18.

Study Name		Serum Cholesterol Changed in Treatment Group
Author, Year Country	Compliance Measured by:	
London Corn & Olive Rose, Thomson, Williams 1965	Changes in serum cholesterol. No change in control or olive oil group, and decrease in corn oil group.	Yes for corn No for Olive
London Low Fat Ball <i>et al.</i> 1965	Changes in serum cholesterol. At year 4, intervention decreased serum chol by 44 mg/100ml, control group by 25 mg/100ml (not significantly different to intervention)	No
The Oslo Diet-Heart Study Leren 1966	serum cholesterol, which decreased by 17.6% in intervention group, cf control group (3.7% decrease)	Yes
MRC Soya trial Morris <i>et al.</i> 1968	Serum cholesterol & adipose fatty acids Cholesterol was lower in intervention group at 6 months, but started to rise again. Authors advise adipose fatty acid concentrations were more unsaturated in the intervention group (data not provided)	No
The Veterans Administration trial Dayton <i>et al.</i> 1969	Greater decrease in serum cholesterol compared with controls (mean difference 12.7%) Serum and adipose fatty acid changes consistent with change in diet.	Yes
The Finnish Mental Hospital Study Turpeinen <i>et al.</i> 1979	During intervention phases, mean serum cholesterol were lower in intervention group (lower by 41.4 mg/dl) Subcutaneous linoleic fatty acid concentrations reflected changes in diet.	Yes
The Finnish Mental Hospital Study Miettinen <i>et al.</i> 1983	During intervention phases, mean serum cholesterol were lower in intervention group (lower by 35.2 mg/dl)	

Supplementary Table 18.

Randomized Controlled Trials of Fat Modified Diets and Coronary Heart Disease

Study Name		Country	Start of Study	Follow-up (years)	Primary or Secondary Prevention	Endpoint	<i>n</i> events / <i>n</i> at risk		Men (%)	Age at Baseline (years)	Physician/Reviewer	Goals of Intervention			
Author, Year	Country						Intervention,	Control							
DART		UK				IHD Events	132	144				Fat advice (reduce fat intake to 30%TE and increase P/S to 1;0)			
Burr <i>et al.</i> 1989			2			IHD Deaths	97	97	100	56	Physician blinded				
						Non-fatal MI	35	47							
The Minnesota Coronary Survey		US		4.5		CHD Event	27.2 / 1,000 person years	25.7 / 1,000 person years	49	around	double-blinded				
Frantz Jr <i>et al.</i> 1989										30 - 60 y					
The STARS Study		UK		3.25		CHD Event	3 / 27	10 / 28	100	50 - 54 y	not clear	Total fat reduced to 27%TE, SFA to 8-10%TE, dietary cholesterol to 100mg/1,000 kcal, PUFA to 8%TE.			
Watts <i>et al.</i> 1992															
The Lyon Diet Heart Study		France		3.8		CHD Death	6 / 302	19 / 303	90	53 y	single-blinded (physician blinded)	Mediterranean-type diet: more bread, root and green vegetables, fish and less meat. Daily serves of fruit. Butter and cream to be swapped with margarine supplied by the study (to use instead of olive oil)			
de Lorgeril <i>et al.</i> 1999						Non-Fatal MI	8 / 302	25 / 303							
						CHD Event	14 / 302	44 / 303							
The Women's Health Initiative		US		8.1		CHD Event	559 / 19541	863 / 29294	0	50 - 79 y	physician blinded	Decrease total fat to 20%TE, increase vegetable, fruits and grains.			
Howard <i>et al.</i> 2006													Non-Fatal MI	435 / 19541	671 / 29294
													CHD Death	158 / 19541	234 / 29294
													Revascularization	717 / 19541	1113 / 29294
													Composite of all	1000 / 19541	1549 / 29294
THIS-DIET		US		6-24 mo		Cardiac Death	0 / 51	3 / 101	70 - 80	58 y	unclear	Decrease total fat to <30%TE, SFA ≤ 7%TE			
Tuttle <i>et al.</i> 2008													MI	3 / 51	8 / 101
													Heart Failure	0 / 51	3 / 101
													Unstable Angina	4 / 51	20 / 101

Abbreviations: CHD, coronary heart disease; MI, myocardial infarction; IHD, ischemic heart disease; SFA, saturated fat; PUFA, polyunsaturated fat; ALA, alpha-linolenic; MUFA, monounsaturated fat; TE, total dietary energy; CHO, carbohydrate.

Supplementary Table 18.

Study Name		Estimated Fat Intakes During Study for Intervention Group and Controls					Diet assessment	
Author, Year	Country	Total Fat	SFA	MUFA	PUFA	P/S ratio	Goals of Control	method used
DART Burr <i>et al.</i> 1989	Intervention:	32.3%TE				0.78	No fat advice	25% of sample did weighed food records (7-days) the rest did 'dietary questionnaire'
	Control:	35.0%TE				0.44		
The Minnesota Coronary Survey Frantz Jr <i>et al.</i> 1989	Intervention:	37.8%TE	9.2%TE		14.7%TE	1.6	Usual institution diet.	Food provided.
	control:	39.1%TE	18.3%TE		5.2%TE	0.3		
The STARS Study Watts <i>et al.</i> 1992	Intervention:	26%TE	8.9%TE	9.1%TE	7.2%TE	0.9	Usual diet	Diet history at baseline, and at least one other time during study
	Control:	36%TE	17%TE	16.8%TE	4.7%TE	0.3		
The Lyon Diet Heart Study de Lorgeril <i>et al.</i> 1999	Intervention:		8.0%TE	12.9%TE (Oleic)	5.6% (PUFA) 3.6%TE (Linoleic) 0.84%TE (ALA)		Usual diet	"dietary survey"
	control:		11.7%TE	10.8%TE (Oleic)	6.10%TE (PUFA) 5.3%TE (Linoleic) 0.29%TE (ALA)			
The Women's Health Initiative Howard <i>et al.</i> 2006	Intake at year 6: Intervention:	28.8%TE	9.5%TE	10.8%TE	6.1%TE	0.7	Usual diet.	FFQs completed throughout study
	control:	37%TE	12.4%TE	14.2%TE	7.5%TE	0.6		
THIS-DIET Tuttle <i>et al.</i> 2008	Intervention at 24 mth:	29.7%TE	8.0%TE	10.3%TE	5.7%TE		Usual diet	3-day diet record
	Control:	not provided						

Supplementary Table 18.

Study Name		Serum Cholesterol Changed in Treatment Group
Author, Year Country	Compliance Measured by:	
DART Burr <i>et al.</i> 1989	A subgroup had blood fatty acids measured. Mean % of linoleic for intervention group significantly higher than control group. Blood Cholesterol measured. At 2 yr total cholesterol decreased by 0.18mmol/l in fat group, and increased by 0.08 mmol/l in control group (not significantly different).	No
The Minnesota Coronary Survey Frantz Jr <i>et al.</i> 1989	Food provided. Serum cholesterol decreased by 32 mg/dl in treatment group, and 4 mg/dl in control group (not statistically significant).	No
The STARS Study Watts <i>et al.</i> 1992	Plasma cholesterol (total and LDL) decreased significantly in the intervention group, baseline compared to follow-up. Plasma TAGs also decreased significantly. No changes observed in the control group.	yes
The Lyon Diet Heart Study de Lorgeril <i>et al.</i> 1999	Plasma fatty acid concentrations were obtained, but not reported. Cholesterol did not appear any different between intervention group and controls in this final analysis.	No
The Women's Health Initiative Howard <i>et al.</i> 2006	Serum total cholesterol and LDL decreased significantly at year 3 (intervention group compared to control). Intervention group lost weight.	Yes
THIS-DIET Tuttle <i>et al.</i> 2008	Plasma fatty acid composition - suggested SFA decreased in intervention group (control not monitored)	

Supplementary Table 19. Randomized Controlled Trials of Omega 3 Long Chain Polyunsaturated Fat and Coronary Heart Disease

Study Name Author, Year	Country	Start of Study	Follow-up	Endpoint	n Events / n at Risk		Participant Characteristics	Men (%)	Mean Age (years)
					Intervention	Control			
				Restenosis	19 / 50	46 / 53			
Dehmer et al. 1988		1986		Angina	13 / 50	19 / 53	PTCA patients	100	56
				IHD Death	78 / 1,015	116 / 1,018			
Burr et al. 1989	UK	unclear	24 mo	Nonfatal MI	49 / 1,015	33 / 1,018	Hospitalized with AMI	100	56.5
				IHD Event	127 / 1,015	149 / 1,018			
				Angina	21 / 100	35 / 100			
Milner et al. 1989	US	1987	6 mo	Clinical Restenosis	16 / 100	35 / 100	PTCA patients	72	59
				Nonfatal MI	7 / 146	0 / 72			
Reis et al. 1991	US	1997	6 mo	Angina	86 / 146	29 / 72	PTCA patients	74	unclear
				Revascularization	36 / 146	13 / 72			
				Clinical Restenosis	22 / 58	14 / 49			
Kaul et al. 1992	India	1990	6 mo	Revascularization	18 / 58	12 / 49	PTCA patients	85	57.5
				Nonfatal MI	4 / 58	2 / 49			
				Angina	2 / 58	2 / 49			
				CHD Event	25 / 58	18 / 49			
Bairati et al. 1992	Quebec	1992	6 mo	Angina	12 / 107	22 / 98	Patients scheduled for elective PTCA	81	55

Supplementary Table 19.

Study Name Author, Year	Participant Blinding?	Outcome assessors masked	Type of Intervention	Intervention		Dropouts
				Total EPA+DHA	Control	
Dehmer et al. 1988	no	no	MaxEPA capsules, 18/day	5.4g daily	nil	3 int, 5 control
Burr et al. 1989	no	yes	dietary advice or Max EPA capsules (3/day)	400g Fatty fish /week 0.5g EPA/day	No dietary advice or capsules	
Milner et al. 1989	no	yes	Promega capsules, 9 per day	3.15g EPA, 1.35g DHA	no placebo given	none, but 11% did not take capsules after 1 week
Reis et al. 1991	yes	yes	Super EPA or Promega capsules, 12 per day	6.0-7.0 g/day (including ALA)	olive oil capsules	22 int, 10 control
Kaul et al. 1992	no	yes	MaxEPA capsules, 10/day	3g/d EPA + DHA	nil	unclear
Bairati et al. 1992	yes	yes	MaxEPA capsules 15g/day	2.7g EPA, 1.8gDHA	15g olive oil capsule	48 int, 38 control

Supplementary Table 19. Randomized Controlled Trials of Omega 3 Long Chain Polyunsaturated Fat and Coronary Heart Disease

Study Name Author, Year	Country	Start of Study	Follow-up	Endpoint	<i>n</i> Events / <i>n</i> at Risk		Participant Characteristics	Men (%)	Mean Age (years)
					Intervention	Control			
Leaf et al. 1994	USA	1989	6 mo	Restenosis	117 / 275	101 / 276	Patients scheduled for elective PTCA	70-80	around 50-60y
				CHD Death	0 / 275	2 / 276			
				Nonfatal MI	1 / 31	2 / 28			
				Revascularization	3 / 31	3 / 28			
Sacks et al. 1995	USA	unclear	29 mo	Unstable Angina	3 / 31	4 / 28	Angiographically confirmed CAD	93.5	62
				CHD Death	0 / 31	1 / 28			
				Fatal MI	0 / 31	1 / 28			
				Fatal MI	7 / 322	4 / 293			
Eritsland et al. 1996	Norway	1989	12 mo	Nonfatal MI	5 / 322	3 / 293	CABG patients	87	59.7
				SCD	7 / 322	4 / 293			
				Vein graft occlusion	196 / 322	172 / 293			
				Angina	22 / 122	50 / 118			
Singh et al. 1997	India	unclear	12 mo	Arrhythmia	16 / 122	34 / 118	Patients with AMI	94	48.6
				SCD	2 / 122	2 / 118			
				CHD Death	14 / 122	26 / 118			
				CHD Event	30 / 122	41 / 118			
Johansen et al. 1999	Norway	1992	6.5 mo	Restenosis	90 / 196	86 / 192	Patients scheduled for elective PTCA	78	59.7
				CHD Death	1 / 250	3 / 250			

Supplementary Table 19.

Study Name				Intervention		
Author, Year	Participant Blinding?	Outcome assessors masked	Type of Intervention	Total EPA+DHA	Control	Dropouts
Leaf et al. 1994	yes	yes	Fish oil capsule: 10x1g/d	6.9g/d	corn oil capsules with fish oil 10x1g/d with 0.4% fish oil (0.003g/d EPA + DHA)	69 int, 69 control
Sacks et al. 1995	yes	yes	Promega supplement, 6 /day	3.0 (including DPA)	olive oil capsules 6x1g/d OR cellulose tablets, 3/d	10 int, 11 control
Eritsland et al. 1996	no	yes	Omacor capsules 4/day	3.3g / day	nil	15 int, 14 control
Singh et al. 1997	no	yes	MaxEPA capsules 6/day	1.8g/day	aluminium hydroxide 100 mg/d	4 fish oil, 6 placebo
Johansen et al. 1999	yes	yes	Omacor capsule 6/day	5g/day	corn oil capsules 6/d	54 int, 58 control

Supplementary Table 19. Randomized Controlled Trials of Omega 3 Long Chain Polyunsaturated Fat and Coronary Heart Disease

Study Name		Country	Start of Study	Follow-up	Endpoint	n Events / n at Risk		Participant Characteristics	Men (%)	Mean Age (years)
Author, Year	Intervention					Control				
von Schacky et al. 1999	Germany	1992	24 mo	Fatal MI	0 / 112	1 / 111	Patients with angiographically confirmed stenosis	80.5	58.3	
				Non-Fatal MI	1 / 112	3 / 111				
				Revascularization	6 / 112	8 / 111				
				Angina	9 / 112	11 / 111				
GISSI-P 1999	Italy	1993	40 mo	Cardiac Death	520 / 5,666	292 / 5,668	Patients with recent MI	85.3	59.4	
				Coronary death	214 / 5,666	265 / 5,668				
				CHD Death and nonfatal MI	424 / 5,666	485 / 5,668				
Nilsen et al. 2001	Norway	1995	24 mo	CHD Event	42 / 150	36 / 150	Patients with first AMI	79.5	64	
				CHD Death	8 / 150	8 / 150				
				Resuscitation	1 / 150	2 / 150				
				Nonfatal CHD	39 / 150	31 / 150				
				Angina	26 / 150	31 / 150				
				Nonfatal MI	21 / 150	15 / 150				
Brox et al. 2001	Norway	?	14 mo	Fatal MI	0 / 80	1/40	Clinically healthy volunteers, with blood cholesterol levels 7.0-9.5mmol/L	50	54.6	
Maresta et al. 2002	Italy	1993	7 mo	Acute MI	0 / 169	5 / 169	Patients scheduled for elective PTCA	84.5	58.7	
				Angina	16 / 169	26 / 170				
				CHD Event	14 / 169	16 / 169				

Supplementary Table 19.

Study Name	Participant Blinding?	Outcome assessors masked	Type of Intervention	Intervention		Dropouts
Author, Year				Total EPA+DHA	Control	
von Schacky et al. 1999	yes	yes	Fish oil capsule: 6/d first 3mth, then 3/d	First 3mth: 4g/d (incl DPA and ALA) Rest of Study: 2g/day	capsules containing fat replicating average European diet, 6/d for first 3 mo, 3/d for rest of study	unclear
GISSI-P 1999	no	yes	Omacour capsule 1g/day	0.9g/d EPA + DHA daily (half group also took vitamin E)	control or vitamin E alone	unclear
Nilsen et al. 2001	yes	yes	Omacor capsules 4/day	3.5g/day	Corn oil capsules 4/d	unclear
Brox et al. 2001	No placebo given - oils only were blinded	yes	Seal Oil: 15 ml/d Cod Liver Oil: 15ml/d	2.6g 3.3g	nil, no supplement	8 seal, 2 cod liver, 1 control
Maresta et al. 2002	yes	yes	Esapent capsules, 6 / day for 2 mo, then 3/d	5.1g/d EPA + DHA initially, then 2.6g/d	Olive oil capsules 6/d for 2 mo, then 3/d	44 int, 38 control

Supplementary Table 19. Randomized Controlled Trials of Omega 3 Long Chain Polyunsaturated Fat and Coronary Heart Disease

Study Name Author, Year	Country	Start of Study	Follow-up	Endpoint	n Events / n at Risk		Participant Characteristics	Men (%)	Mean Age (years)
					Intervention	Control			
Burr et al 2003	UK	1990	36-108 mo	Cardiac Death	180 / 1,571	158 / 1,543	Patients being treated for angina	100	61.1
				SCD	47 / 1,571	73 / 1,543			
Raitt et al. 2005	US	1999	23 mo	CHD Death	2 / 100	5 / 100	Patients with implantable cardioverter defibrillators and recent episode of VT or VF	86	62
				SCD	2 / 100	0 / 100			
				Angina	10 / 100	7 / 100			
				Arrhythmia	21 / 100	16 / 100			
				Revascularization	2 / 100	4 / 100			
Total MI	1 / 100	3 / 100							
Leaf et al. 2005	US	1999	12 mo	CHD Death	9 / 200	9 / 202	Patients with implantable cardioverter defibrillators	83	65
				CHD event	65 / 273	62 / 273			
Brouwer et al. 2006	Europe	2001	356 days	Angina	10 / 273	12 / 273	Patients with ventricular tachycardia or ventricular fibrillation, & had received, or were about to receive an ICD	85	61
				Cardiac Death	6 / 273	13 / 273			
				ICD intervention	75 / 273	81 / 273			
				MI	1 / 273	3 / 273			
				Heart Failure	22 / 273	19 / 273			
Arrhythmia	36 / 273	34 / 273							

Supplementary Table 19.

Study Name				Intervention		
Author, Year	Participant Blinding?	Outcome assessors masked	Type of Intervention	Total EPA+DHA	Control	Dropouts
Burr et al 2003	no	yes	1109 dietary advice to eat 2 weekly portions fatty fish or MaxEPA capsules 3/day; 462 only MaxEPA capsules	0.5g EPA	no dietary advice or capsules	none
Raitt et al. 2005	yes	yes	Fish oil 1.8g/day	42%EPA, 30%DHA	73%o oleic, 12% palmitic	2 int, 6 control
Leaf et al. 2005	yes	yes	Fish oil capsules, 4/day	2.6g	Olive oil capsule	35% dropped out, not clear how many per group.
Brouwer et al. 2006	yes	yes	Fish capsules, 4 / day	464mg EPA, 335mg DHA, 162 other n-3	Oil capsule containing sunflower oil (high oleic)	33 int, 32 control

Supplementary Table 19. Randomized Controlled Trials of Omega 3 Long Chain Polyunsaturated Fat and Coronary Heart Disease

Study Name Author, Year	Country	Start of Study	Follow-up	Endpoint	<i>n</i> Events / <i>n</i> at Risk		Participant Characteristics	Men (%)	Mean Age (years)
					Intervention	Control			
Yokoyama et al. 2007	Japan	1996	55 mo	CHD Event	262 / 9,326	324 / 9,319	All patients with hypercholesterolemia (total chol \geq 6.5mmol/L, LDL \geq 4.4 mmol/L) with or without CAD.	31	61
				SCD	18 / 9,326	17 / 9,319			
				Fatal MI	11 / 9,326	14 / 9,319			
				Nonfatal MI	62 / 9,326	83 / 9,319			
				Unstable Angina	147 / 9,326	193 / 9,319			
				Revascularization	191 / 9,326	222 / 9,319			
				CHD Death	29 / 9,326	31 / 9,319			
GISSI-HF, 2008	Italy	2002	3.9 y	SCD	307 / 3,494	325 / 3,481	Patients with clinical evidence of heart failure of any cause	78	67
				Fatal/nonfatal MI	107 / 3,494	129 / 3,481			
				AMI	20 / 3,494	25 / 3,481			
Tuttle et al. 2008	US	2000	6 - 24 mo	Cardiac Death	0 / 51	3 / 101	patients with first AMI	around 70-80	58
				MI	1 / 51	8 / 101			
				Heart failure	0 / 51	3 / 101			
				Unstable Angina	4 / 51	20 / 101			

Abbreviations: IHD, ischemic heart disease; MI, myocardial infarction; CAD, coronary artery disease; ICD, implantable cardioverter defibrillator; PTCA, percutaneous transluminal coronary angioplasty; AMI, acute myocardial

Supplementary Table 19.

Study Name				Intervention		
Author, Year	Participant Blinding?	Outcome assessors masked	Type of Intervention	Total EPA+DHA	Control	Dropouts
Yokoyama et al. 2007	no	yes	EPA capsules 3/ day (with statin)	1,800mg EPA	statin only, no placebo given	
GISSI-HF, 2008	yes	yes	n-3 capsule, 1g/day, with normal treatment	850-882 EPA/DHA (ratio 1:1.2)	placebo	69 int, 82 ctrl
Tuttle et al. 2008	no	yes	Dietary Advice to eat fish, olive canola or soybean oil	Omega-3 fats 0.67%TE (plasma n-3, EPA & DHA fatty acids increased significantly from baseline to 6 months)	usual care (plasma fatty acids not measured)	5 int, 3 control