Supplementary file 5: Characteristics of included studies

Study ID	**Study Deign**	**Length of Intervention /Follow up**	**Number of Participants**	**Age (mean years)**	**Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)**	**Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)**	**Outcomes Measured (verbatim)**	**Funding Source**	**Disclosed author conflicts of interest**
Aerde, M 2013[(1)]	Cohort	12.4 years	1,956 men & women	61.6 years	Total Dairy, 271 g/day per SD of the mean intake for Total dairy (all dairy products except butter)		Fatal CVD	Non-Industry[1]	Yes[a]
Al-Delaimy, WK 2003[(2)]	Cohort	12 years	39,800 men	40-75 years	Dairy Calcium Q5, 819 mg/day (median) (dairy calcium intake summed the calcium intake from whole milk, skim or low-fat milk, yogurt, ice cream, cottage cheese, and other cheese was summed)	Q1, 106 mg/day	Fatal Ischemic Heart Disease	Non Industry[2]	No[b]
Alonso A, 2005[(3)]	Cohort	27 months	5,880 men & women	37 years	Dairy Q 5, 798.8 g/day (whole-fat milk, partially skim milk, skim milk, condensed milk, whipped cream, yogurt, skim yogurt, milk-shake, cottage cheese or junket, petit Suisse cheese, spreadable cheese wedges, soft unripened cheese, other cheese, custard, and ice cream)	Q 1, 155.6 g/day	Hypertension	Non-industry[3]	No[c]

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Altorf-van der Kuil, W2012[4]	Cohort	Mean follow up 7·5 years	3,588 men & women	44 years	Dairy Protein T3, ≥ 27 g/day (dairy protein was calculated as protein from milk, yogurt, coffee creamer, curd, pudding, porridge, custard, whipped cream and cheese)	T1, ≤ 19 g/day	Hypertension	Industry[4]	Yes[d]
Avalos, EE 2013[5]	Cohort	Mean follow up 16.2 years	1,759 men & women	70.6 years men, 70.1 women	Whole Milk, Non-Fat Milk, Yogurt & Cheese, Sometimes/often (included daily, 4–6 times/week, 1–3 times/week and 1–3 times/months)	Rarely/never (included never & 1–11 times/year)	Incident CHD	Non-industry[5]	No[e]
Bernstein, AM 2012[6]	2 Cohorts	26 and 22 years of follow-up in women and men, respectively	127,160 (43 150 men 84 010 women)	Men 40 to 75 years, Woman 30 to 55 years	Whole Fat Q 5, Men 2.55 servings/day, Woman 2.81 servings/day (whole milk, ice cream, hard cheese, full fat cheese, cream, sour cream, cream cheese, butter) Low Fat Q5, Men 2.64 servings/day, Women 2.20 servings/day (skim/low-fat milk, 1% and 2% milk, yogurt, cottage and ricotta cheeses, low-fat cheese, sherbet)	Q 1, Men 0.21 servings/day, Woman 0.34 servings/day. Low Fat Q1, Men 0.11 servings/day, Women 0.07 servings/day	Total Stroke	Non-industry[6]	Yes[f]
Biong, A 2008[7]	Case Control		218 men & women	62.4 years	Dairy Fat, > 34.1 g/day	<14.6 g/day	First Myocardial Infarction	Industry[7]	Yes[g]

Study ID	Study Deign	Length of Intervention /Follow up	Number of Participants	Age (mean years)	Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)	Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)	Outcomes Measured (verbatim)	Funding Source	Disclosed author conflicts of interest
Bonthuis, M 2010[8]	Cohort	Mean 14.4 years	1,529 men & women	25–78 years	Total Dairy T3, 599 g/day (median) ('low-fat dairy products was computed by adding daily servings (in grams) of skim milk, low-fat milk, low-fat yoghurt, cottage or ricotta cheese, whereas the food group 'high-fat/unmodified dairy' included whole milk, cream, ice cream, yoghurt, full-fat cheese and custard. Total dairy intake was the sum of intake of all these dairy foods)	T1, 174 g/day	Cardiovascular Disease Mortality	Non-Industry[8]	No[h]
Buendia, JR 2018[9]	3 Cohorts	30 years of follow-up in NHS, 20 years in NHS II, 24 years in the HPFS	NHS (N=69298), NHS II (N=84368), HPFS (N=30512)	Mean baseline ages in the 3 cohorts were 44.6, 35.8, and 50.7 years, respectively	Total Dairy Q4, 3 - <6 servings/day (total dairy intake included: milk (skim, low-fat, whole), ice cream, sherbet/ frozen yogurt, cheese (cottage, ricotta, hard, sliced), and yogurt (all types)	Q1, <0.5 servings/day	High Blood Pressure	Industry[9]	No[i]
Chen, M 2016[10]	3 Cohorts	24 years in the HPFS, 32 years NHS, 20 years in NHS II	222,234 - 43,652 men HPFS, 87,907 women NHS, 90,675 women NHS II	40–75 years HPFS, 30–55 years NHS, 25–42 y NHS II	Dairy Fat, Q5	Q1	CVD	Non-Industry[10]	No[j]

Study ID	**Study Deign**	**Length of Intervention /Follow up**	**Number of Participants**	**Age (mean years)**	**Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)**	**Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)**	**Outcomes Measured (verbatim)**	**Funding Source**	**Disclosed author conflicts of interest**
Dalmeijer,G 2013[(11)]	Cohort	13 years	33,625 men & women	49.0 years	Total dairy and its subtypes were evaluated as continuous variables per standard deviation of the mean intake which is 265 g/d for total dairy (total dairy included all dairy food products except for butter and ice cream. Milk and milk products included all kinds of milk, yogurt, coffee creamers, curd, pudding, porridge, custard, and whipping cream)		Incident of Coronary Heart Disease & Incident Stroke	Non-Industry[11]	Yes[k]
Dauchet, L 2007[(12)]	Cohort	5.4 years	2,341 men & women	Men 52.7 years, Women 46.9 years	Dairy Q4, 456 g/day (dairy products including milk, cheese, yogurt, and other dairy products)	Q1, 84 g/day	Systolic & Diastolic Blood Pressure	Non-Industry[12]	No[l]

Study ID	**Study Deign**	**Length of Intervention /Follow up**	**Number of Participants**	**Age (mean years)**	**Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)**	**Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)**	**Outcomes Measured (verbatim)**	**Funding Source**	**Disclosed author conflicts of interest**
Dehghan, M 2018[13]	Cohort	9.1 yrs	136,384 men & women	50·1 years	Dairy Q4, >2 servings/ day (median) (dairy comprised milk, yoghurt, various types of cheese, yoghurt drink, and mixed dishes prepared with dairy. Mixed dishes prepared with dairy were dis- aggregated into their constituents and a proportional weight was assigned to each component. Then each component was included in the related dairy group.	Q1, 0 servings/day	Cardiovascular Mortality or Major Events	Industry[13]	No[m]
Elwood, PC 2004[14]	Cohort	20-24 years	2,403 men	45-59 years	Milk Q4, >1 pint per day	Q1, None	Vascular Event	Non-Industry[14]	No disclosure

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Engberink, MF 2009[15]	Cohort	6 years	2,245 men & women	>55 years	Dairy Q4, 691 g/day (i.e. 4.5 servings/day) (median intake) (calculated total dairy intake by summing the intake of individual dairy items, except butter and ice cream. The category "milk and milk products" included all kinds of milk, yogurt, coffee creamer, curd, pudding, porridge, custard, and whipped cream. The category "cheese" included all kinds of cheese products, ie, soft cheese, hard cheese, and cheese spreads)	Q1, 164 g/day (i.e. 1 serving/day) (median intake)	Hypertension	No disclosure	No[n]
Farvid, MS 2017[16]	Cohort	8 years	42,403 men & women	51.6 years	Total Dairy Q5, 2.4 servings/day (median) (total dairy product items listed in the food frequency questionnaire included milk, cheese, yogurt, liquid yogurt (doogh), dried yogurt paste (kashk), and cream)	Q1, 0.4 servings/day (median)	Cardiovascular Disease Mortality	Non-Industry[15]	No[o]
Haring, B 2014[17]	Cohort	22 years (median)	12,066 men & women	45-64 years	Dairy Protein Q5, 2.9 servings/day	Q1, 0.1 median servings/day	Coronary Heart Disease	Non-Industry[16]	No[p]
He, K 2003[18]	Cohort	14 years	43,732 men	40-75 years	High Fat Dairy Q5, ≥1/day	Q1, <1/week	Ischaemic & Haemorrhagic Stroke	Non-Industry[17]	No[q]

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Heraclides, A 2012[19]	Cohort	10 years	1,750 men & women	Men 43 years, Women 53 years	Total Dairy T3, 309.0 g/day (median) (full-fat milk; semi-skimmed milk; skimmed milk; milk-containing beverages (full fat, semi-skimmed and skimmed); full-fat cheese; low-fat cheese; full-fat yoghurt; low-fat yoghurt; fruit-flavoured yoghurt (full fat and low fat); and milk-based puddings)	T1, 224.1 g/day	Incident Hypertension	Non-Industry [18]	Yes[r]
Johansson, I 2018[20]	Cohort	8-12 years	27,682 men & women	29-65 years	Dairy Q 5, 7.1 servings/day (median)	Q1, 1.6 servings/day (median)	Blood Pressure	Non-Industry[19]	No[S]
Johansson, I 2019[21]	Cohort	14.2 years	108,065 men & women	calculated mean = 52.5 years *	High Fat & Low Fat Non-Fermented Milk & Cheese Q 4, high dose	Q1, low dose	Myocardial Infarction & Stroke	Non-Industry[20]	No[t]
Kim, D 2017[22]	Cohort	67·4 months	4,335 men & women	40-69 years	Total Dairy Q 5, >7 servings/week	Q 1, <1 servings/week	Blood Pressure	Non-Industry [21]	No[u]
Larsson,S 2009[23]	Cohort	13.6 years	26,556 men	50-69 years	Dairy Q5, 1295.6 g/day (median) (including low-fat milk, whole milk, sour milk, yogurt, cheese, cream, ice cream, and butter)	Q1 286.5 g/day	Cerebral Infarction, Intracerebral Haemorrhage, Subarachnoid Hemorrhage	Non-Industry[22]	No disclosure

Study ID	Study Deign	Length of Intervention /Follow up	Number of Participants	Age (mean years)	Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)	Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)	Outcomes Measured (verbatim)	Funding Source	Disclosed author conflicts of interest
Larsson, SC 2012[24]	Cohort	10.2 years	74,961 men & women	45-83 years	Dairy Q5, 9.3 servings/day (median) (dairy foods included low-fat milk (0.5% fat), medium-fat milk (1.5% fat), full-fat milk (3% fat), milk in pancakes, low-fat sour milk/yogurt (0.5% fat), full-fat sour milk/ yogurt (3% fat), cottage cheese (4% fat), low-fat cheese (10%-17% fat), full-fat cheese (approximately 28% fat), ice cream, cream, and creme fraiche)	Q1, 2.3 servings/day	Total Stroke	Non-Industry[23]	No[v]
Li, K 2012[25]	Cohort	11 years	23,980 men & women	35-64 years	Dairy Calcium Q4, 780 mg/day	Q1, 188 mg/day	CVD Mortality	Non-Industry[24]	No[w]
Lin, PH 2013[26]	Cohort	12 years	2,061 men & women	45.8 years (no information for stroke group)	Dairy T3, (dairy milk of any kind, cheese, yogurt).	T1	Total Stroke	Non-Industry[25]	No[x]
Lockheart, MSK 2007[27]	Case Control		211 men & women	62.5 years cases and 62.2 years controls	Low Fat Dairy T3, 618 g/day (Low-fat milk, skimmed milk, light sour cream)	T 1, 48 g/day	First Myocardial Infarction	Industry [26]	No disclosure
Louie, JCY 2013[28]	Cohort	15 years	2,625 men & women	49–97 years	Total Dairy T3, 2.9 servings/day (median) (included all dairy foods)	T1, 0.6 servings/day	Total CVD	Industry[27]	No disclosure
Mazidi, M, 2018[29]	Cohort	76.4 months	24,474 men & women	47.6 years	Total Dairy Q4, 3.08 cup equivalent servings/day (total dairy, milk, cheese, and yogurt)	Q1, 0.25 cup equivalent servings/day	CHD Mortality & Cerebrovascular Disease mortality	Non-Industry[28]	No[y]

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Ness, AR 2001[30]	Cohort	25 years	5,765 men	35-64 years	Milk T3, > 1 pint (= 0.568 liters)	T1, None	Cardiovascular Disease Deaths	Non-Industry[29]	No[z]
Nettleton, J 2008[31]	Cohort	13.3 years	14,153 men & women	45 to 64 years	High Fat Dairy, per 1 daily serving difference in food group intake		Incident Heart Failure	Non Industry[30]	No[aa]
Panagiotakos, D 2009[32]	Cohort	5 years	3,042 men & women	18-89 years	Low Fat Dairy, 1-unit increase in components' scores (0%, 2% or total fat), like cheese, yogurt, milk)		CVD Events	Non-Industry[31]	No disclosure
Patterson, E 2013[33]	Cohort	11.6 years	33,636 women	48-83 years	Total Dairy, Q5 8.4 servings/day (median) (total dairy intake was the sum of milk [full-fat (≥3.0% fat), semi-skimmed (≤1.5% fat), skimmed (0.5% fat), and pancakes], cultured milk/yogurt [full-fat (≥3.0% fat) and low-fat (≤1.5% fat)], cheese [full-fat (>17% fat), low-fat (≤17% fat), and cottage cheese/ quark], cream and creme fariche (full fat and low fat) intakes)	Q1, 2.2 servings/day	Myocardial Infarction	Non Industry[32]	No[bb]
Praagman, J 2015 (a)[34]	Cohort	13.3 years (median)	4,235 men & women	66.9 years	Total Dairy, T3 >400g/day (total dairy included milk, buttermilk, yogurt, coffee creamer, curd, pudding, porridge, custard, whipped cream, ice cream, and cheese, but not butter)	Total Dairy, T 1 <200 g/day	Fatal Stroke & Fatal CHD	Industry[33]	Yes[cc]

Study ID	Study Deign	Length of Intervention /Follow up	Number of Participants	Age (mean years)	Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)	Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)	Outcomes Measured (verbatim)	Funding Source	Disclosed author conflicts of interest
Praagman, J 2015 (b)[35]	Cohort	15 years	34,409 men & women	Men 51 years & women 43 years	Total Yogurt & Cheese Q4, (fermented dairy foods)	Q1	CVD Mortality	Non-Industry[34]	Yes[dd]
Sauvaget, C 2003[36]	Cohort	16 years	37,130 men & women	56 years	Dairy Q4, Almost Daily (dairy products (butter and cheese, excluding margarine))	Q1, Never	Total Stroke	Non-Industry[35]	No disclosure
Snijder, MB 2008[37]	Cohort	6.4 years	1,124 men & women	50–75 years	Dairy Q4, 5.75-17.24 servings/day (range) (total dairy consumption was categorized as low-fat dairy (≤2% fat) or high-fat dairy (>2% fat). The variable dairy desserts included yoghurt, curds, and custard. The variable milk included low-fat, skim, and, whole milk. The variable yoghurt included all low- fat, skim, and whole yoghurts)	Q1 0-2.97 servings/day (range)	Systolic & Diastolic Blood Pressure	Industry[36]	Yes[ee]
Soedamah-Muthu, SS 2013[38]	Cohort	10.8 years	4,255 men & women	56 years	Dairy, T3 575 g/day (median) (all dairy products, except butter and ice cream)	T1, 246 g/day (median)	Fatal & Non-Fatal CHD	Non-Industry [37]	Yes[ff]
Steffen, LM 2005[39]	Cohort	15 years	4,304 men & women	18-30 years	Dairy Foods Q5, >3.4 times/day (dairy foods, including milk, cheese, yogurt, and dairy desserts)	Q1, <1.1 times/day	Blood Pressure	Non-Industry[38]	No[gg]

Study ID	Study Deign	Length of Intervention /Follow up	Number of Participants	Age (mean years)	Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)	Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)	Outcomes Measured (verbatim)	Funding Source	Disclosed author conflicts of interest
Tavani, A 2002[40]	Case Control		985 men & women	61 years (median)	Total milk >7 cups/week, Yogurt >= 7 portions/week, Cheese >=350g/week	Total milk 0 cups/week, Yogurt 0 portions/week, Cheese <200g/week	Acute Myocardial Infarction	Non-Industry[39]	No[hh]
Um, C 2017[41]	Cohort	5.7 years of follow-up	21,427 men & women	calculated mean = 64.8 years**	Total Dairy Q5, 17.8 servings/day (dairy products (milk, cream, fermented dairy products, ice cream, butter, cheeses))	Q1, 0.9 servings/day	CVD Mortality	Non-Indutry[40]	No[ii]
Umesawa, M, 2008[42]	Cohort	12.9-year follow-up	41,526 men & women	40-59 years	Dairy Calcium, Q5, 116 mg/day (median) (to calculate dairy calcium intake, we specified 2 kinds of dairy products, ie, cheese and dairy products except cheese, for the baseline questionnaire, and 4 kinds, ie, whole milk, low fat milk, cheese, and yogurt, for the 5-year follow-up questionnaire)	Q1, 0 mg/day	Total Stroke & CHD	Non-Industry[41]	No[ij]

Study ID	Study Deign	Length of Intervention /Follow up	Number of Participants	Age (mean years)	Exposure (highest tertile/quartile/quintile or 'yes' to dairy foods)	Comparison (lowest tertile/quartile/quintile or 'no' to dairy foods)	Outcomes Measured (verbatim)	Funding Source	Disclosed author conflicts of interest
Wang,L 2008[43]	Cohort	10 years	28,886 women	53.8 years	Total Diary Q5, 3.69 servings/day (median) (total dairy product intake was calculated by summing the intake of individual dairy items: low-fat dairy items include skim or low-fat milk, sherbet, yogurt, and cottage/ricotta cheese, high-fat dairy items include whole milk, cream, sour cream, ice cream, cream cheese, and other cheese)	Q1, 0.56 servings/day (median)	Hypertension	Non-Industry[42]	No[kk]

* We calculated the mean age score of participants by summing Non-cases, T2D, MI and stroke cases at baseline and dividing them by 4
**We calculated the mean age score of participants by summing all quintiles 1, 3, & 5 (they were the only ones available) at baseline and dividing them by 5

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Description of Author Disclosure Statement (Verbatim)

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b) None of the authors had any conflict of interest from a financial, personal, or professional aspect in relation to the findings of this study.
c) None of the authors had any conflicts of interest.
d) Altorf-van der Kuil W, Engberink MF, Geleijnse JM - Top Institute Food and Nutrition, PO Box 557, 6700 AN, Wageningen, The Netherlands.
e) The authors have no conflicts of interest.
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