

Supplementary Data.

Supplemental Table 1. Search strategy for the MEDLINE database.

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|---|-----|--|-----|----------------------|
| "dairy products"[MeSH] OR "dairy" OR "milk" OR "yogurt" OR Yoghurt OR "cheese" OR kefir OR butter | AND | "diabetes mellitus" [MeSH] OR diabetes OR DM OR "glucose intolerance" OR hyperglycemia | AND | meta OR review |
|---|-----|--|-----|----------------------|

Supplementary Data.

Supplemental Table 2. Covariates considered in the analysis of the cohorts included in the systematic reviews and meta-analyses.

| Reference, country | Covariates included in the analyses | Meta-analyses including each paper |
|--|---|------------------------------------|
| Choi et al. 2005, USA (S1) | Age, total energy intake, FH of DM, smoking status, BMI, hypercholesterolemia, hypertension, physical activity, alcohol intake, cereal fiber, trans FAs, PUFA: SFA ratio, glycemic load | 22-25, 29, 35-37 |
| Montonen et al. 2005, Finland (S2) | Age, sex, BMI, energy intake, smoking, FH of DM, geographic area | 9, 22, 23, 28, 38 |
| Pittas et al. 2006, USA (S3) | Age, BMI, hypertension, FH of DM, smoking, physical activity, caffeine, alcohol, residence, SFAs, PUFAs, trans FAs, cereal fiber, Mg, GL, retinol, energy | 22, 23, 25 |
| Liu et al. 2006, USA (S4) | Age, total energy intake, randomized treatment assignment, FH of DM, smoking status, BMI, hypercholesterolemia, hypertension, physical activity, hormones, alcohol, dietary fiber, total fat, GL | 9, 22-25, 27-29, 35-37 |
| van Dam et al. 2006, USA (S5) | Age, total energy intake, alcohol, BMI, smoking status, strenuous physical activity, FH of DM, education, coffee, sugar-sweetened soft drinks, processed meat, red meat, whole grains | 9, 22-25, 27-29, 35, 36 |
| Lecomte et al. 2007, France (S6) | FH of DM, BMI, TG, glucose at baseline | 22, 29 |
| Elwood et al. 2007, United Kingdom (S7) | Age, smoking, BMI, social class | 9, 22-25, 27, 28, 35-37 |
| Vang et al. 2008, USA (S8) | Age, sex | 9, 22, 28, 37 |
| Villegas et al. 2009, China (S9) | Age, energy intake, BMI, WHR, smoking status, alcohol, physical activity, income, education, occupation, hypertension | 9, 22, 21, 25, 28, 36, 37 |
| Kirii et al. 2009, Japan (S10) | Age, area, BMI, FH of DM, smoking status, alcohol intake, history of hypertension, exercise frequency, coffee consumption, energy-adjusted Mg, total energy intake | 9, 22-25, 27-29, 37 |
| Malik et al. 2011, USA (S11) | Age, BMI, total energy, FH of DM, smoking status, physical activity, alcohol use, OC use, HRT, PUFA: SFA ratio, GL, cereal fiber, trans fat, processed meat, carbonated soft drinks, fruit drinks, coffee; mutual adjustment: high- and low-fat dairy products | 22, 23 |
| Margolis et al. 2011, USA (S12) | Age, race-ethnicity, total energy intake, income, education, BMI, smoking, alcohol intake, FH of DM, HRT, SBP, DBP, physical activity, interaction of low-fat dairy 3 BMI, interaction of yogurt 3 times | 9, 22-24, 27-29, 37 |
| Sluijs, et al. 2012, Europe (S13) | Age; center, sex, BMI, education, smoking status, physical activity, intakes of alcohol, fruit and vegetables, red meat, processed meat, sugar-sweetened soft drinks, coffee, cereals, cereal products, energy | 9, 22, 23, 27, 28 |
| Struijk et al. 2012, Denmark (S14) | Age, sex, intervention group, FH of DM, education, physical activity, smoking status, intakes of alcohol, whole-grain cereal, meat, fish, coffee, tea, fruit, vegetables, energy; change in diet from baseline to 5-y follow-up; waist circumference | 9, 22, 23, 27, 28 |
| Louie et al. 2012, Australia (S15) | Age, sex, smoking status, physical activity, GL, vegetable fiber, total energy, FH of DM2, SBP, BMI, HDL, total cholesterol, TG | 9, 22, 23, 27-29 |
| Grantham et al. 2013, Australia (S16) | Age, sex, energy intake, FH DM, education, physical activity, smoking status, TG, HDL cholesterol, SBP, waist circumference, hip circumference | 9, 22, 23, 25, 27, 28 |
| von Ruesten et al. 2013, Germany (S17) | Age, sex, smoking status, pack-years of smoking, alcohol, leisure-time physical activity, BMI, WHR, hypertension, high blood lipids, education, vitamin supplementation, total energy intake, other food groups | 22 |
| Soedamah-Muthu et al. 2013, United Kingdom (S18) | Age, ethnicity, employment grade, smoking BMI, physical activity, FH of HD/hypertension, intakes of alcohol, fruit and vegetables, bread, meat, fish, coffee, tea, total energy | 9, 22, 23, 27, 37 |
| Chen et al. 2014, HPFS, USA (S19) | Age (continuous), BMI (8 categories), total energy intake (quintiles), race, smoking, physical activity, alcohol consumption, FH of DM, hypertension, hypercholesterolemia, trans-fat intake, glycemic load, red processed meat intake, nuts intake, SSB intake, and coffee intake, and other dairy types for individual dairy types. | 9, 27, 28 |
| Chen et al. 2014, NHS I, USA (S19) | Age (continuous), BMI (8 categories), total energy intake (quintiles), race, smoking, physical activity, alcohol consumption, menopausal status and menopausal hormone use, FH of DM, hypertension, hypercholesterolemia, trans-fat intake, glycemic load, red processed meat intake, nuts intake, SSB intake, and coffee intake, and other dairy types for individual dairy types. | 9, 27-29, 37 |

BMI: body mass index; DBP: diastolic blood pressure; FA: fatty acid; FH of DM: family history of diabetes mellitus; GL: glycemic load; Hg: mercury; HPFS: Health Professional Follow-up Study; HRT: hormone replacement therapy; NHS: Nurses' Health Study I, NHS II: Nurses' Health Study II; OC: oral contraceptive; PUFA: polyunsaturated fatty acid; SBP: systolic blood pressure; SFA: saturated fatty acid; SSB: sugar-sweetened beverage; TG: triacylglycerol; WHR: waist-to-hip ratio.

Supplementary Data.

Supplemental Table 2. Covariates considered in the analysis of the cohorts included in the systematic reviews and meta-analyses (continued)

| Reference, country | Covariates included in the analyses | Meta-analyses including each paper |
|--|---|------------------------------------|
| Chen et al. 2014, NHS II, USA (S19) | Age (continuous), BMI (8 categories), total energy intake (quintiles), race, smoking, physical activity, alcohol consumption, menopausal status and menopausal hormone use, oral contraceptive use, FH of DM, hypertension, hypercholesterolemia, trans-fat intake, glycemic load, red processed meat intake, nuts intake, SSB intake, and coffee intake, and other dairy types for individual dairy types. | 9, 27-29, 37 |
| Zong et al. 2013, China (S20) | Age, sex, region, smoking, family history of diabetes, BMI, and dietary fiber intake | 9, 27- 29, 37 |
| Ericson et al. 2013, Sweden (S21) | Sex, smoking status, alcohol, consumption, leisure-time physical activity, BMI, waist-to-hip ratio, hypertension, history of high blood lipid, levels at baseline, education, vitamin, supplementation, non-consumption of the respective food group, total energy intake (kJ/day). | 23, 29 |
| Diaz-Lopez et al. 2015, Spain (S22) | Age, sex, BMI, dietary intervention group, leisure time physical activity, education level, smoking, hypertension or antihypertensive use, fasting glucose, HDL cholesterol, triglycerides, and intake of vegetables, legumes, fruits, cereals, meat, fish, olive oil, nuts, alcohol and alcohol squared in g/d | 9, 24, 28, 29, 37 |
| Ericson et al. 2015, Sweden (S23) | Age, sex, method version, season, total energy intake, leisure-time physical activity, smoking, alcohol intake, education, and BMI | 9, 28, 38 |
| Fuhrman et al. 2009, Puerto Rico (S24) | None | 28 |
| O'Connor et al. 2014, United Kingdom (S25) | Age, sex, BMI, FH of DM, smoking, alcohol, physical activity, social class, education level, energy, fiber, fruit, vegetables, red meat, processed meat, and coffee intake | 28, 29, 37 |
| Nettleton et al. 2008, USA (S26) | Race, sex, age, study center, total energy intake, smoking status and pack years, physical activity, alcohol, coffee, tea, meat (red and processed), fish, whole grains, and BMI | 28 |
| Brouwer-Brolsma et al. 2016, The Netherlands (S27) | Age, sex, alcohol, smoking, education, physical activity, BMI, total energy intake, energy adjusted meat intake, energy adjusted fish intake, and potential intermediates: total cholesterol, HDL-cholesterol, C-reactive protein, hypertension | 9 |
| Moslehi et al. 2015, Iran (S28) | Age, sex, FH of DM, BMI, waist circumference, energy intake, blood pressure, triacylglycerol, cholesterol | 9 |
| Buijsse et al. 2015, Multi-country (S29) | Study center, energy intake, alcohol intake, gender, education, smoking status, physical activity, BMI | 38 |
| Guasch-Ferre et al. 2015, USA (S30) | Age, ethnicity, ancestry, smoking status, alcohol intake, dietary pattern (Alternative Healthy Eating Index score, and total energy intake, physical activity, FH of DM, history of hypertension, hypercholesterolemia, multivitamin use, postmenopausal status and menopausal hormone use. | 38 |

BMI: body mass index; DBP: diastolic blood pressure; FA: fatty acid; FH of DM: family history of diabetes mellitus; GL: glycemic load; Hg: mercury; HPFS: Health Professional Follow-up Study; HRT: hormone replacement therapy; NHS: Nurses' Health Study I, NHS II: Nurses' Health Study II; OC: oral contraceptive; PUFA: polyunsaturated fatty acid; SBP: systolic blood pressure; SFA: saturated fatty acid; SSB: sugar-sweetened beverage; TG: triacylglycerol; WHR: waist-to-hip ratio.

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Supplemental Table 3. Search strategy for the MEDLINE database.

| Reference | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | Total | Risk of bias |
|-------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|-------|--------------|
| Aune et al. 2013 (22) | Y | Y | Y | Y | N | N | N | Y | N | N | Y | N | N | Y | Y | Y | 9 | Good |
| Chen et al. 2014 (27) | Y | Y | Y | Y | N | N | N | Y | N | N | Y | N | N | Y | Y | Y | 9 | Good |
| Elwood et al. 2008 (35) | Y | Y | Y | Y | N | N | N | Y | N | N | Y | N | N | Y | N | Y | 8 | Acceptable |
| Elwood et al. 2010 (36) | Y | Y | Y | Y | N | N | N | Y | N | N | Y | N | N | Y | N | Y | 8 | Acceptable |
| Gao et al. 2013 (23) | Y | Y | Y | Y | Y | Y | N | Y | Y | N | Y | Y | Y | Y | Y | Y | 14 | Very good |
| Gijsbers et al. 2016 (28) | Y | Y | Y | Y | Y | Y | N | Y | Y | N | Y | N | N | Y | Y | Y | 12 | Very good |
| Khoramdad et al. 2016 (29) | Y | Y | Y | Y | Y | Y | N | Y | Y | N | Y | Y | Y | Y | Y | Y | 14 | Very good |
| Khoramdad et al. 2016 (37) | Y | Y | Y | Y | Y | Y | N | Y | Y | N | Y | Y | Y | Y | Y | Y | 14 | Very good |
| Pimpin et al. 2016 (38) | Y | Y | Y | Y | N | Y | N | Y | Y | N | Y | Y | Y | Y | Y | Y | 13 | Very good |
| Schwingshackl et al. 2017 (9) | Y | Y | Y | Y | Y | Y | N | Y | Y | N | Y | Y | Y | Y | Y | Y | 14 | Very good |
| Tian et al. 2017 (24) | Y | Y | Y | Y | N | N | N | Y | N | N | Y | N | N | Y | Y | Y | 9 | Good |
| Tong et al. 2011 (25) | Y | Y | Y | Y | N | N | N | Y | N | N | Y | N | N | Y | Y | Y | 9 | Good |

N: no; y: yes

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Supplemental References

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Supplementary Data.

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Supplementary Data.

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