**Supplemental Table 1.** Prospective studies on total legume consumption and cardiovascular disease incidence in 163,974 participants.

| First Author (Reference) | Study | Country | Participants | Years of Follow-Up | Exposure |
|---|---|---|---|---|---|
| Bazzano et al. (20) | NHANES I | USA | 9,632 men and women | 19 | Soybeans, dry beans and peas like pinto beans, red beans, black-eye [sic] peas, peanuts and peanut butter |
| Martinez-Gonzalez et al. (21) | The SUN | Spain | 13,609 men and women | 4.9 | Unspecified legumes |
| Nouri et al. (22) | Isfahan Cohort study | Iran | 6,504 men and women | 6.8 | Unspecified legumes |
| Stewart et al. (24) | STABILITY trial | Global | 15,482patients with stable coronary heart disease | 3.7 | Tofu/soybean curd (textured vegetable protein, soya milk, etc.) |
| Miller et al. (23) | PURE | 18 countries | 135,335 men and women | 7.4 | Legumes (beans, black beans, lentils, peas, chickpeas, and black-eyed peas) |

NHANES I, First National Health and Nutrition Examination Survey; PURE, Prospective Urban Rural Epidemiology; STABILITY, Stabilisation of atherosclerotic plaque by initiation of darapladib therapy; SUN, Seguimiento Universidad de Navarra

**Supplemental Table 2.** Prospective studies on total legume consumption and coronary heart disease incidence in 184,129 participants.

| First Author (Year) (Reference) | Study | Country | Participants | Years of Follow-Up | Exposure |
|---|---|---|---|---|---|
| Bazzano et al. (20) | NHANES I | USA | 9,632 men and women | 19 | Soy legumes, dry beans and peas like pinto beans, red beans, black-eye [sic] peas, peanuts and peanut butter |
| Buckland et al. (27) | EPIC-Spanish study | Spain | 15,335 men 25,422 women | 10.4 | Unspecified legumes |
| Bernstein et al. (28) | NHS | USA | 84,136 women | 26 | Beans or lentils, baked or dry |
| Martinez-Gonzalez et al. (21) | The SUN study | Spain | 13,609 men and women | 4.9 | Unspecified legumes |
| Dilis et al. (29) | EPIC-Greek study | Greece | 9,740 men 14,189 women | 10 | Unspecified legumes |
| Haring et al. (30) | ARIC | USA | 12,066 men and women | 22 | Unspecified legumes |

ARIC, Atherosclerosis Risk in Communities; EPIC, European Prospective Investigation into Cancer and Nutrition; NHANES I, First National Health and Nutrition Examination Survey; NHS, Nurses' Health Study; SUN, Seguimiento Universidad de Navarra.

**Supplemental Table 3.** Prospective studies on total legume consumption and stroke incidence in 342,079 participants.

| First Author (Year) (Reference) | Study | Country | Participants | Years of Follow-Up | Exposure |
|---|---|---|---|---|---|
| Kokubo et al. (18) | Japan Public Health Center-based | Japan | 19,466 men 20,984 women | 12.5 | Soy legumes |
| Mizrahi et al. (33) | Finnish Mobile Clinic Health Examination Survey | Finland | 3,932 men and women | 24 | Unspecified legumes |
| Bernstein et al. (34) | NHS + HPFS | USA | 43,150 men 84,010 women | 26 NHS + 22 HPFS | Legumes (dry beans, peas, soy, and tofu) |
| Misirli et al. (35) | EPIC-Greek study | Greece | 23,601 men and women | 10.6 | Unspecified legumes |
| Haring et al. (36) | ARIC | USA | 11,601 men and women | 22 | Unspecified legumes |
| Miller et al. (23) | PURE | 18 countries | 135,335 men and women | 7.4 | Legumes (beans, black beans, lentils, peas, chickpeas, and black-eyed peas) |

ARIC, Atherosclerosis Risk in Communities; EPIC, European Prospective Investigation into Cancer and Nutrition; HPFS, Health Professionals Follow-Up Study; NHS, Nurses' Health Study; PURE, Prospective Urban Rural Epidemiology; SUN, Seguimiento Universidad de Navarra.

**Supplemental Table 4.** Prospective studies on total legume consumption and type 2 diabetes incidence in 539,752 participants.
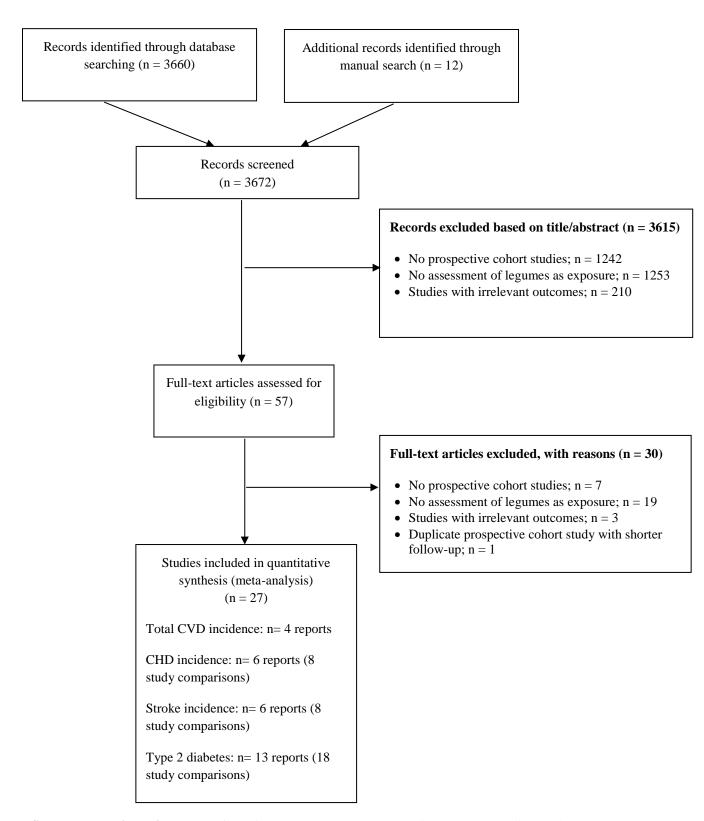
| First Author, Year | Study | Country | Participants | Years of Follow-Up | Exposure |
|---|---|---|---|---|---|
| Meyer et al. (42) | Iowa Women's Health Study | USA | 35,988 postmenopausal women | 6 | Mature beans |
| Hodge et al. (43) | MCCS | Australia | 31,641 otherwise healthy participants | 4 | Bean, pea, or lentil soup; green beans or peas; cooked dried bean, chickpea, or lentil dish (including baked beans) |
| Bazzano et al. (44) | NHSI | USA | 71,346 female nurses | 18 | Tofu, peas and beans |
| Villegas et al. (45) | SWHS | China | 64,227 middle-aged women | 4.6 | Peanuts, soybeans and other legumes |
| Nanri et al. (46) | JPHC | Japan | 25,872 men 33,3919 women | 5 | Soy products (Miso soup, tofu, yushidofu, koyadofu, aburaage, natto and soy milk |
| Morimoto et al. (47) | MEC | Hawaii | 36,212 men 39,132 women | 14 | Tofu, miso, soup and vegetarian-meat products |
| Mueller et al. (48) | SCHS | Singapore | 43,176 healthy participants | 5.7 | Total unsweetened soy |
| Ericson et al. (50) | MDC | Sweden | 20,550 men 16,590 women | 12 | Not described |
| Tatsumi et al. (40) | Saku study | Japan | 862 men with low BMI 876 men with high BMI | 4 | Soybeans products (soybean, tofu, koyadofu, aburaage and natoo) |
| Von Ruesten et al. (49) | EPIC-Potsdam study | Germany | 23,531 otherwise healthy participants | 8 | Green beans, green peas, lentil/pea/bean stew |
| Ding et al. (51) | NHSII | USA | 79,061 younger female nurses | NR | Tofu and soymilk |
| | HPFS | | 21,281 male dentist, pharmacists, vegetarians, optometrists, osteopathic | | |

| | | | physicians and podiatrists | | |
|---|---|---|---|---|---|
| Becerra-Tomás et al. (14) | PREDIMED | Spain | 3,349 elderly participants at high CVD risk | 4.3 | Non-soy legumes (lentils, chickpeas, dry beans and fresh peas) |
| Khalili-Moghadam et al. (41) | TLGS study | Iran | 2,139 participants aged ≥20 years | 6 | Non-described |

EPIC, European Prospective Investigation into Cancer and Nutrition; HPFS, Health Professionals Follow-up Study; JPHC, Japan Public Health Center-Based Prospective study; MCCS, Melbourne Collaborative cohort study; MDC, Malmo Diet and Cancer study; MEC, Multiethnic Cohort study; NHS, Nurses' Health Study; NR, non-reported; PREDIMED, PREvención con DIeta MEDiterránea Study; SCHS, Singapore Chinese Health Study; TLGS, Tehran Lipid and Glucose Study.

Supplementary Data

| MEDLINE (Pubmed) | |
|---|---|
| 1 | "legumes"[All Fields] OR "dietary pulses"[All Fields] OR "soy"[All Fields] OR "soybeans"[All Fields] OR "fabaceae"[MeSH Terms] |
| 2 | cardiovascular diseases [Mesh Terms] OR "cardiovascular diseases"[All Fields] OR "coronary heart disease"[All Fields] OR "coronary disease"[All Fields] OR "Stroke"[All Fields] OR "CVD"[All Fields] |
| 3 | diabetes mellitus, type 2[MeSH Terms] OR "type 2 diabetes"[All fields] OR "diabetes"[All fields] OR "type 2 diabetes mellitus"[All fields] OR "diabetes mellitus"[All fields] |
| 4 | #1 AND (#2 OR #3) |

**Supplemental Figure 1**. Literature search strategy.

Supplementary Data

Records identified through database searching (n = 3660)

Additional records identified through manual search (n = 12)

Records screened
(n = 3672)

**Records excluded based on title/abstract (n = 3615)**

- No prospective cohort studies; n = 1242
- No assessment of legumes as exposure; n = 1253
- Studies with irrelevant outcomes; n = 210

Full-text articles assessed for eligibility (n = 57)

**Full-text articles excluded, with reasons (n = 30)**

- No prospective cohort studies; n = 7
- No assessment of legumes as exposure; n = 19
- Studies with irrelevant outcomes; n = 3
- Duplicate prospective cohort study with shorter follow-up; n = 1

Studies included in quantitative synthesis (meta-analysis)
(n = 27)

Total CVD incidence: n= 4 reports

CHD incidence: n= 6 reports (8 study comparisons)

Stroke incidence: n= 6 reports (8 study comparisons)

Type 2 diabetes: n= 13 reports (18 study comparisons)

**Supplemental Figure 2**. PRISMA flow diagram. CHD, coronary heart disease; CVD, cardiovascular disease