**Table S1** Characteristics of included studies in the meta-analysis

| First author and year | No. of participants | Men (%) | Mean age/age range | Follow-up durations | Indica-tors | Outcome | No. of  events | Location | Quality score | Anthropometric  measurement | Name of cohort | Adjusted |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Blomstrand1998 | 14040 | 44 | 54 | 6.2 | WHR WHtR | CHD | 398 | US | 9 | Measured | Atherosclerosis Risk in Communities Study (ARIC) | Age, ethnicity, smoking status and amount, alcohol drinking status, and family history of coronary heart disease |
| Beer  2011 | 4382 | 100 | 75 | 6 | WHR | Stroke MI | 686 | Australia | 6 | Measured | The Health in Men Study (HIMS) | none |
| Rimm  1995 | 29122 | 100 | 40-75 | 3 | WHR | CHD | 420 | US | 7 | Self-reported | The Health Professionals Follow-up Study | Vitamin E, age, smoking, calories, alcohol, family history, and profession. |
| Hu  2007 | 49996 | 48 | 25-74 | 19.5 | WC | Stroke | 3228 | Finland | 7 | Self-reported | None | Age, study year, smoking status, physical activity, educational level, family history of stroke, alcohol consumption, systolic blood pressure, total cholesterol  level, and history of diabetes mellitus. |
| Gruson 2009 | 10602 | 100 | 54 | 10 | WC  WHR WHtR | CHD | 659 | Ireland | 8 | Measured | Prospective  Epidemiological Study of Myocardial Infarction | Age, school duration, physical activity, tobacco and alcohol consumption, hypertension, diabetes, HDL-cholesterol and triglycerides |
| Yatsuya  2010 | 13549 | 44 | 53 | 16.9 | WC  WHR | Stroke | 593 | US | 9 | Measured | Atherosclerosis Risk  in Communities (ARIC) | Age, education, smoking status, cigarette-years, ethanol consumption, physical activity, blood pressure, hypertension medication, diabetes, and blood levels of high-density lipoprotein cholesterol. |
| Hotchkiss 2013 | 21481 | 43 | 45 | 10.1 | WC  WHR | CHD | 873 | Scotland | 8 | Measured | Scottish Health Survey (SHeS) | Age, smoking status, alcohol consumption and year of survey. |
| Dis  2009 | 20500 | 45 | 43 | 10 | WC | CVD | 809 | Netherlands | 8 | Measured | Monitoring Project on Chronic Disease Risk Factors (MORGEN) | Age, sex, smoking, educational level, systolic blood pressure, total serum cholesterol, HDL-cholesterol, and self-reported diabetes mellitus. |
| Abete  2015 | 41020 | 38 | 50 | 13.8 | WC  WHR | Stroke | 647 | Spanish | 9 | Measured | European Prospective Investigation of Cancer and Nutrition (EPIC) - Spanish | Age, energy intake, macronutrient percentages, smoking status, height, weight, education level, physical activity, alcohol consumption, myocardial infarction and hormone use (in women) |
| Kizer  2010 | 3754 | 38 | 72 | 14 | WC  WHR  WHtR | Stroke  CHD | 1467 | US | 8 | Measured | The Cardiovascular Health Study | Age, race, smoking status, physical  activity, alcoholic drinks, educational attainment, serum creatinine, and hormone replacement therapy. |
| Xu  2014 | 1034 | 100 | 47 | 9.2 | WHtR | Stroke | 47 | China | 6 | Measured | None | Age, smoking, alcohol consumption, family history of cardiovascular disease, diastolic blood pressure, fasting plasma glucose, high density lipoprotein cholesterol, total cholesterol, and triglyceride. |
| Rexrode 1998 | 44702 | 0 | 40-65 | 8 | WC  WHR | CHD | 320 | US | 8 | Self-reported | Nurses’ health study | Age, smoking, parental history of MI, 8alcohol consumption, physical activity, menopausal status, hormone replacement therapy, oral contraceptive use, aspirin intake. |
| Rexrode  2001 | 16164 | 100 | 60 | 3.9 | WC WHR | CHD | 552 | US | 8 | Self-reported | Physicians’ Health Study | Age, randomized beta-carotene assignment, aspirin use, smoking, parental history of MI, physical activity, alcohol consumption and multivitamin use, BMI. |
| Lakka  2002 | 1346 | 100 | 52 | 10.6 | WC  WHR | CHD | 123 | Finland | 6 | Measured | Kuopio Ischemic  Heart Disease Risk Factor Study (KIHD) | Age, years of examination, family history of coronary heart disease, adulthood socioeconomic status, cigarette smoking, and maximal oxygen uptake |
| Horvei  2014 | 6379 | 48 | 61 | 15.7 | WC WHR | MI  VTE | 1213 | Norway | 7 | Measured | The Tromsø Study | Age, smoking, systolic blood pressure, total cholesterol, HDL cholesterol, triglycerides, HbA1C and self-reported diabetes mellitus |
| Lu  2006 | 33578 | 0 | 40 | 11.4 | WC WHR  WHtR | Stroke | 170 | Sweden | 8 | Self-reported | Women’s Lifestyle and Health Cohort Study | Age, smoking, alcohol intake, age at first birth, years of education, and ever use of oral contraceptives by the time of cohort enrolment, history of hypertension and diabetes mellitus. |
| Severinsen 2009 | 57074 | 48 | 50-64 | 6.2 | WC | CHD | 398 | US | 8 | Measured | Diet, Cancer, and Health Cohort | Age, physical activity, smoking categories, height, cholesterol, hypertension, diabetes mellitus, and use of hormone replacement therapy (women only). |
| Adegbija  2015 | 920 | 51 | 42 | 20 | WC | CVD | 334 | Australia | 7 | Self-reported | None | Age, smoking status and alcohol status. |
| Myint  2014 | 15062 | 100 | 63 | 8.2 | WHR | CVD | 4665 | UK | 8 | Measured | European Prospective Investigation of Cancer and Nutrition (EPIC) - Norfolk | Age, smoking status, alcohol consumption, physical activity, social class, education, BP, cholesterol, diabetes, prior stroke, prior MI, prior cancer, fat%, WHR, BMI with exclusion of prior stroke, prior MI, prior cancer. |
| Gelber  2008  (PHS) | 16322 | 100 | 61 | 14.2 | WC  WHR  WHtR | CVD | 1505 | US | 7 | Self-reported | Physicians’ Health Study | Age, physical activity, smoking, alcohol consumption, parental history of MI before the age of 60 years, post-menopausal hormone use, race, education, and dietary factors. |
| Gelber  2008 (WHS) | 32700 | 0 | 61 | 5.5 | WC  WHR  WHtR | CVD | 414 | US | 7 | Self-reported | Women’s Health Study | Age, physical activity, smoking, alcohol consumption, parental history of MI before the age of 60 years, post-menopausal hormone use, race, education, and dietary factors. |
| Walker  1996 | 28643 | 100 | 54 | 5 | WHR | Stroke | 118 | US | 8 | Self-reported | Health Professionals Follow-up Study | Age, activity, vitamin E, vitamin C, and carotene. |
| Larsson 2017 | 71817 | 53 | 60 | 15.3 | WC | AS | 1397 | Sweden | 7 | Self-reported | Swedish Mammography Cohort, Cohort of Swedish Men | Age, sex, education, smoking status and history, and history of diabetes, hypertension, and hypercholesterolemia. |
| Sehested  2010 | 2493 | 49 | 50 | 12.6 | WC WHR | CVD | 328 | Denmark | 6 | Measured | None | Age, smoking, alcohol consumption, and physical activity. |
| Wang  2004 | 836 | 50 | 34 | 10 | WC  WHR | CVD | 165 | Australia | 6 | Measured | None | Age, sex, blood pressure, cholesterol, smoking and diabetes. |
| Wannamethee  2013 | 3411 | 100 | 60-79 | 9 | WC | Stroke | 192 | UK | 8 | Measured | British Regional Heart Study | Age, diabetes mellitus, angina, atrial fibrillation, smoking, social class, alcohol intake, physical activity, lung function, systolic blood pressure, and use of antihypertensive drugs. |
| Aekplakorn  2007 | 2536 | 100 | 54 | 17 | WC  WHR  WHtR | CHD | 66 | Thailand | 7 | Measured | None | Age, smoking, and alcohol drinking; Model 3 adjusted for age, smoking, alcohol drinking, diabetes, systolic blood pressure, and total cholesterol. |
| Zhang  2009 | 67083 | 0 | 51 | 7.3 | WC  WHR  WHtR | Stroke | 2403 | China | 8 | Measured | Shanghai Women’s Health Study | Age, education, occupation, family income, menopausal status, use of oral contraceptives, hormone therapy, and aspirin, amount of exercise, cigarette smoking, alcohol consumption, and intakes of saturated fat, vegetables, fruits, and sodium. |
| Yang  2007 | 48052 | 0 | 30-50 | 12 | WC, WHR | CHD | 256 | Sweden | 9 | Self-reported | Women’s Lifestyle  and Health Cohort Study | Adjusted for age, smoking, alcohol, years of education, ever use of oral contraceptives, and exercise, plus diabetes and hypertension. |
| Furukawa  2010 | 5474 | 47 | 30-79 | 11.7 | WC | Stroke, MI | 340 | Japan | 8 | Measured | The Suita Study | Age, smoking, and drinking status. |
| Tatsumi  2013 | 5488 | 47 | 30-79 | 13 | WHtR | CHD, Stroke | 428 | Japan | 8 | Measured | The Suita Study | Age, smoking, and drinking status. |

CVD, cardiovascular disease; CHD, coronary heart disease; MI, myocardial infarction; VTE, venous thromboembolism; WC, Waist circumference; WHR, waist-to-hip ratio; WHtR, waist-to-height ratio.