| **Study Reference****Quality Rating** | **Health Outcome Instruments** | **Health Outcomes** | **Adverse Effects** | **Comments** |
| --- | --- | --- | --- | --- |
| Anderssen, 1995144ODES (Oslo Diet and Exercise Study)Fair | NR | Mean change (SE) at 12 mo **BL 12 mo***VO2, mL-kg/minute*BL DBP>91 mmHg**IG1** -- -0.5(0.9)**IG2** -- 1.6 (1.2)\***IG3** -- 4.4 (0.7)\***CG** -- -2.3 (1.0)BL DBP 84-91 mmHg**IG1** -- -0.3 (1.0) **IG2** -- 2.5 (1.0)\***IG3** -- 4.9 (1.1)\***CG** -- -2.5 (0.8)BL DBP<84 mmHg**IG1** -- -0.1 (0.8)**IG2 --** 2.0 (1.5)\***IG3** -- 4.9 (0.8)\***CG** -- -1.3 (0.5)*\*p<0.05 for IG compared with CG***IG1 n analyzed:** 16 (DBP>91), 17 (DBP 84-91), 19 (DBP<84)**IG2 n analyzed:** 20 (DBP>91), 16 (DBP 84-91), 13 (DBP<84)**IG3 n analyzed:** 24 (DBP>91), 20 (DBP 84-91), 21 (DBP<84)**CG n analyzed:** 12 (DBP>91), 16 (DBP 84-91), 15 (DBP<84) | NR | **Subgroup analyses:** Wt change in subset with metabolic syndrome provided in Anderssen 2007 |
| Burke, 2005145ADAPTFair | NR | NR | NR | **Subgroup analyses:** Sex**Other:** At 40 months, 64/118 (54.2%) completed the study in the CG and 76/123 (61.8%). Due to the high attrition, outcomes at 40 months were not abstracted (weight, waist circumference, SBP, DBP, total cholesterol, HDL, triacylglycerols, glucose, insulin). |
| Christian, 2008146Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** NR |
| Cohen, 1991147Fair | **QOL**Instrument used: NRRange: NR# of questions: NRDirectionality (higher score=better or worse): NR**Disability**Instrument used: NRRange: NR# of questions: NR Directionality (higher score=better or worse): NR**Depression**Instrument used: NRRange: NR# of questions: NR Directionality (higher score=better or worse): NR | NR | NR | **Subgroup analyses:** Change in mean arterial pressure, change in number of medications, and visits to physician reported for gainers vs losers**Other:** Change in number of antihypertensive medications also reportedOf the 18 physicians:1 had 5 ppts (IG - slight avg weight loss)1 had 4 ppts (CG-no change on avg)1 had 3 ppts (CG-slight avg weight gain)3 had 2 ppts ea12 had 1 ppt each |
| Cussler, 2008148Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** Analysis also available for baseline observation carried forward, not just completers**Maintenance trial** |
| Davis, 1992149Langford, 1991260Davis, 1989261TAIMFair | **QOL**Instrument used: Life Satisfaction Scale, Physical Complaints Inventory, Symptom Check ListRange: NR# of questions: NRDirectionality (higher score = better or worse): NR | Relative Risk (N) **BL 6 mo***Cardiovascular Risk*Blacks**IG** -- 1.01 (27)**CG** -- 1.00 (26)Whites**IG** -- 0.91 (57)**CG** -- 1.00 (53)Mean at BL, Mean change (SE) at 6 mo*Pulse rate, beats/minute***IG** 79.1 -4.9 (1.0)**CG** 76.4 -1.8 (1.2)**IG n analyzed:** 90 (BL), 89 (6 mo); **CG n analyzed:** 90 (BL, 6 mo)In addition, specific subscales measured depression, anxiety, sleep disturb-ances, fatigue, and sexual complaints. There was significantly greater improvement in total physical complaints (p<0.002) and sexual problems (p<0.001) in weight reduction groups vs other diet group assignments. However, no diet/drug combo was better than any other or than placebo and usual diet. | NR | **Subgroup analyses:** NR**Other:** Phase II data not used due to how they randomized patients to the second phase and presentation of results (Davis, 1993, RM #8345) |
| Diabetes Prevention Program Research Group, 1999142Diabetes Prevention Program Research Group, 2005212Orchard, 2005262Diabetes Prevention Program Research Group, 2005205Diabetes Prevention Program Research Group, 2005207Ackermann, 2009211Diabetes Prevention ProgramGood | **Depression**Instrument used: Beck Depression Inventory or current use of antidepressants (BDI ≥11 threshold used for depression)Range: 0-63# of questions: NRDirectionality (higher score = better or worse): Higher score = worse**Anxiety**Instrument use: Beck Anxiety InventoryRange: 0-63# of questions: NRDirectionality: Higher score = worse**QOL**Instrument used: Medical Outcomes Study SF-36Range: NR# of questions: 36Directionality: Lower score = worseInstrument used: Quality of Well-Being Scale (QWB-SA)Range: NR# of questions: NRDirectionality: Higher score = better |  **BL 12 mo 24 mo 36 mo***Depression (BDI>10 or antidepressant use), percent*Men**IG** 10.0 7.9 6.7 --**CG** 9.1 7.5 8.9 --Women**IG** 16.1 15.0 15.5 --**CG** 18.1 17.1 19.6 --**Men n analyzed\*:** 1029 (BL), 948 (12 mo), 848 (24 mo)**Women n analyzed\*:** 2158 (BL), 1980 (12 nmo), 1819 (24 mo)*Cardiovascular disease related deaths, n***IG** -- -- -- 2**CG** -- -- -- 4*Nonfatal cardiovascular disease events, percent***IG** -- -- -- 2.2**CG** -- -- -- 1.7*Incidence of nonfatal cardiovascular disease events, events/1000 patient-years***IG** - -- -- 9.7**CG** -- -- -- 7.3*Note: The small, nonsignificant excess of events in IG consisted of CVD hospitalizations and revascularization procedures.**Diabetes mellitus crude cumulative incidence, cases/100 p-y*IG -- -- -- 4.8CG -- -- -- 11.0*Diabetes Mellitus cumulative incidence, percent* IG 0 -- -- 14.4 CG 0 -- -- 28.9 |  **48 mo†****Age: All 25-44 45-59 60-85***Gastrointestinal symptoms (diarrhea, flatulence, nausea, vomiting), number of events/100 person-years***IG** 12.9\* 13.1 14.2 9.7 **CG** 30.7 32.4 30.8 27.8*Musculoskeletal problems (mostly myalgia, arthritis, arthralgia), number of events/100 person-years***IG** 24.1\* 19.9 25.4 28.0 **CG** 21.1 16.1 21.9 26.7*One or more hospital admissions, percent***IG** 15.6 15.4 13.3 20.6**CG** 16.1 11.1 16.9 21.9*Rate of hospitalization, number of admissions/100 person-years***IG** 8.0 7.5 6.4 12.3**CG** 7.9 6.3 7.9 10.6*Median hospital stay, days***IG** 3 3 3 3**CG** 3 3 3 4 | **Subgroup analyses:** Weight and waist circumference at 36 mo by age (although >40% of participants were lost to followup by 36 mo); Subset of 758 participants who had measurements of body fat and body fat distribution by sex at 1 year; Fasting glucose, TG, HDL, BP, waist circumference, and BMI median percent change at 1 year stratified by % weight loss and then sex; Weight loss by race/ethnicity**Other:** 10-year unblinded followup results available (#8173).After removal of interaction terms, race (p<0.0001) and gender (p=0.0259) main effects were significant within lifestyle treatment.IG produced significantly larger percent weight  |
| Diabetes Prevention Program Research Group, 1999142Diabetes Prevention Program Research Group, 2005212Orchard, 2005262Diabetes Prevention Program Research Group, 2005205Diabetes Prevention Program Research Group, 2005207Ackermann, 2009211Diabetes Prevention ProgramGood |  |  **BL 12 mo 24 mo 36 mo***Diabetes Mellitus incidence, percent lower from CG (95% CI)***IG** 0 -- -- 58 (48, 66)*Diabetes incidence, cases/100 person-years*25-44 years**IG -- -- --** 6.3**CG** -- -- -- 11.045-59 years**IG**  -- -- -- 4.9**CG** -- -- -- 10.860-85 years**IG** -- -- -- 3.3**CG** -- -- -- 10.3**IG n analyzed:** 1079**CG n analyzed:** 1082 **BL 12 mo***Anxiety, Beck Anxiety Inventory***IG** 3.19 (4.48) -0.89 (4.78)**CG** 3.78 (4.89) -0.25 (4.80)**IG n analyzed**: 1011 (BL), 998 (12 mos)**CG n analyzed**: 1012 (BL), 993 (12 mos) *SF-6D***IG** 0.802 (0.106) 0.0004 (0.103)**CG** 0.788 (0.111) -0.013 (0.106)*SF-36 Physical Component Score***IG** 50.6 (6.9) 1.33 (7.00)**CG** 50.4 (7.2) -0.04 (7.12)*SF-36 Mental Component Score***IG** 53.7 (7.6) -0.70 (8.67)**CG** 54.0 (7.4) -1.16 (8.33)**IG n analyzed:** 1072 (BL), 1017 (12 mos)**CG n analyzed:** 1079 (BL), 1018 (12 mos)*Quality of Well-being***IG** 0.710 (0.115) 0.022 (0.113)**CG** 0.700 (0.115) 0.013 (0.124)**IG n analyzed**: 679 (BL), 268 (12 mos)**CG n analyzed:** 702 (BL), 252 (12 mos)*In a fully adjusted model including both IG and weight change, assignment to either IG was not significantly associated with changes in SF-6D at 12 mo vs CG. After adjusting for IG, change in weight were associated with significant changes at 12 mo for SF-6D (p<0.001), PCS-36 (p<0.001), MCS-36 (p=0.04) for ever 5 kg loss; similar associations at 24 mo.* *\* Not available by IG and CG. Ns are for both IGs (metformin and behavioral counseling) and CG.* |  **48 mo†****Age: Al 25-44 45-59 60-85***Deaths, number/100 person-years***IG** 0.10 0.1 0.0 0.31**CG** 0.16 0.0 0.0 0.86\* p<0.05 for comparison with CG† 3.2 yrs for age groups**IG n analyzed:** 1073 (22-44 yrs: 318; 45-59 yrs: 541; 60-85 yrs: 214)**CG n analyzed:** 1092 (22-44 yrs: 324; 45-59 yrs: 557; 60-85 yrs: 201)The rate of musculoskeletal symptoms was highest in the IG-L.Hospital admissions were more common in the oldest age group, but did not differ by IG or CG. | loss than CG and achieved greater weight loss than the metformin group across the race-gender groups (all p<0.05).Weight loss, reduction in waist circumference, and percentage of participants who achieved the 7% weight loss goal all increased with increasing age.Association of weight loss and health utilities is reported which is independent of treatment group |
| Fitzgibbon, 2010204ORBITFair | NR | NR | NR | **Subgroup analyses:** NR**Other:** NR |
| Haapala, 2009151Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** NR |
| Hypertension Prevention Trial Research Group, 1990143HPTGood | NR | NR | NR | **Subgroup analyses:** NR**Other:** NR |
| Irwin, 2003152Frank, 2005263Mohanka, 2006264PATHGood | NR | NR | No injuries were reported as a result of the exercise program | **Subgroup analyses:** Weight and body fat measures stratified by age and BMI at baseline; lipoprotein measures stratified by change in body fat and change in VO2 max; glucose and triglycerides stratified by change in total fat mass and by minutes of exercise per week**Other:** NR |
| Jeffery, 1993153Jeffery, 1995289Trial of Food Provision and Monitary IncentivesFair | NR | NR | NR | **Subgroup analyses:** NR**Other:** NR |
| Jones, 1999154Hansson, 1994265The HOT Study Group, 1993266Hypertension Optimal Treatment (HOT) SubstudyFair | NR | NR | NR | **Subgroup analyses:** Mean (SEM) SBP by target DBP at 3, 6, 12, 18, 24, and 30 months; mean (SEM) DBP by target DBP at BL, 3, 6, 12, 18, 24, and 30 months**Other:** NR |
| Kastarinen, 2002155LIHEF Study (Lifestyle Intervention against Hypertension in Eastern Finland)Fair | NR | NR | NR | **Subgroup analyses:** BP outcomes for those with and without HTN meds**Other:** NR |
| Kulzer, 2009156Fair | **QOL**Instrument used: World Health Organization-Five Well-Being Index (WHO-5)Range: NR# of questions: NRDirectionality: Higher score = better**Depression**Instrument used: Center for Epidemiologic Studies Depression Scale (CES-D)Range: NR# of questions: NRDirectionality: Higher score = worse | Mean (SD) **BL 12 mo 12 mo change***Psychological well-being, WHO-5***IG** 15.3 (5.1) 16.7 (4.8) 1.4 (3.9)**CG** 14.3 (4.9) 14.3 (5.1) 0.0 (4.2)*Depression, CES-D***IG** 12.0 (9.5) 9.8 (7.5) -2.2 (7.7)**CG** 13.7 (8.2) 11.4 (7.8) -2.3 (6.8) | NR | **Subgroup analyses:** NR**Other:** NR |
| Langford, 1985157Wassertheil-Smoller, 1985267DISHFair | NR | NR | NR | **Subgroup analyses:** Race**Other:** If a patient's drug therapy was restarted because of blood pressure rise as specified, or if drug therapy was restarted by physicians outside the study, this was considered a terminating event and the patient was counted as "withdrawal failure." Other terminating events were strokes, a new myocardial infarction, congestive heart failure, or an elevated creatine level |
| Martin, 2008158Martin, 2006268Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** Weight change for completers also available; the results were not statistically significant |
| Mayer-Davis, 2004159POWERFair | NR | NR | NR | **Subgroup analyses:** High attenders**Other:** NR |
| Mensink, 2003160Mensink, 2003269Fair | NR | Mean (SE) at BL, Mean change (SE) at 12, 24 mo **BL 12 mo 24 mo***VO2max, L/minute***IG** 2.15 (0.1) 0.11 (0.03)\* 0.09 (0.04)\***CG** 2.13 (0.1) -0.01 (0.04) -0.03 (0.04)*\* p<0.05 between groups***IG n analyzed:** 55 (BL), 40 (12, 24 mo)**CG n analyzed:** 59 (BL), 48 (12, 24 mo) | No serious adverse events were observed in the IG during 2 years of followup | **Subgroup analyses:** NR**Other:** NR |
| Mitsui, 2008161Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** Mean steps per day for IG and CG available in a figure |
| Moore, 2003162Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** NR |
| Narayan, 1998163Fair | NR | n (percent) **BL 6 mo 12 mo***Abnormal glucose tolerance, 2-hour PG* ≥*7.8 mM***IG** 0 (0) 12 (27) 13 (29)**CG** 0 (0) 4 (9) 5 (11) | NR | **Subgroup analyses:** NR**Other:** Low attendance at intervention classes; authors note that weekly classes may have been too onerous |
| Parikh, 2010208Project HEEDFair | NR | *Incidence of diabetes, cases per person-year***IG** 0.36**CG** 0.33 | NR | Subgroup analyses: NROther: IG group reported very limited behavior changes in diet and exercise |
| Perri, 1988164Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** **Maintenance trial**: each group received an intervention for 6 months, but after 6 months the treatment differed |
| Pritchard, 1999165Fair | NR |  **BL 12 mo***Daily dose of cardiovascular drug use, n (daily doses; 95% CI)***IG1** -- 16 (1.8; 0.8, 2.8)**IG2** -- 21 (3.2; 1.9, 4.5)**CG** -- 19 (2.1; 1.4, 2.8)*Note: No significant differences in the daily doses of cardiovascular drug use.* | NR | **Subgroup analyses:** NR**Other:** Compared with CG, the cost of an extra kilogram of weight loss for IG1 was $9.76 and for IG1 it was $7.30. |
| Silva, 2009166Silva, 2008270Teixeira, 2009271Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** Moderate/vigorous and lifestyle PA associated with 12 mo change in most eating behavior variables (disinhibition, perceived hunger, emotional eating, external eating) and body weight change |
| Simkin-Silverman, 2003167Simkin-Silverman, 1998272Kuller, 2001273Park, 2007274Women's Healthy Lifestyle Project (WHLP)Good | NR | NR | IG lost more BMD than CG at total hip, femoral neck, but not at spine or whole body after controlling for age and baseline BMD. Differences disappeared after controlling for weight change. Combining treatment and control groups, women who lost weight showed greatest reductions in hip, neck, and trochanteric sites and women who gained weight showed smallest reductions | **Subgroup analyses:** HDL, LDL, TG, and glucose by hormone use (non- users saw greater increases in LDL and smaller increases in HDL than users in both treatment groups, no diffs in TG, glucose)**Other:** NR |
| Stevens, 1993146Whelton, 1992TOHP Collaborative Research Group, 1992Trials of Hypertension Prevention Phase IGood | NR | *Incidence of Hypertension at either 12- or 18-mo, percent (n/N)***IG** 6.5 (20/308)**CG** 13.3 (34/256) *RR (95% CI):* 0.66 (0.46, 0.94) | NR | **Subgroup analyses:** Weight loss and BP presented by men and women: Group diffs in SBP and DBP seen at all followup time points for men, only SBP at 6-mo for women Linear regression showed smaller intervention effects for weight change and BP change for black than white participants**Other:** NR |
| Stevens, 2001169Hollis, 1995277TOHP, 1997278Trials of Hypertension Prevention Phase IIGood | NR | Percent (n) and risk ratio **6 mo 18 mo 36 mo 48 mo***Hypertension* **IG** 4.2 (25) 16.6 (97) 31.9 (185) 38.5 (211)**CG** 7.3 (43) 21.1 (124) 39.2 (229) 44.4 (248)*Risk ratio*  0.58\* 0.78\* 0.81\*\* 0.87*\* p≤0.05 for CG vs IG**\*\* p<0.01***IG n analyzed:** 595 (6 mo), 584 (18 mo), 582 (36 mo), 548 (48 mo)**CG n analyzed:** 589 (6 mo), 588 (18 mo), 577 (36 mo), 559 (48 mo) | NR | **Subgroup analyses:** Weight change by sex and race/ ethnicity (significant group diffs for white men and women through 18 mo, but not white women at 36 mo; black men and women through 6 mo, not at 18 and 36 mo for either black men or women); weight change by # of counseling sessions attend-ed, SBP and DBP by amount of weight lost.In IG, men had greater net wt loss than women by 1.2 kg at 18 mo and 1.7 kg at 36 mo.**Other:** NR |
| Svetkey, 2008170Weight Loss Maintenance Trial PROTOCOL, 2008279WLMGood | NR | *Deaths***IG1:** 1**IG2:** 1**CG:** 1 | NR | **Subgroup analyses:** Report change at 30 mo within 4 race-sex subgroups: no sig interactions with age or sex, and magnitude of observed treatment effects was generally consistent across race-sex subgroups. Change in weight from study entry (Phase I, pre-randomization); maintenance of at least 4 kg weight loss relative to entry weight; no net weight gain from entry; at least 5% loss from entry; no more than 3% gain from randomization**Other:** NR |
| ter Bogt, 2009171Fair | NR | NR | NR | **Subgroup analyses:** % change in body weight by gender, age, education, BMI, attempts to lose weight during the past 5 years, visits to NP, treatment recommended**Other:** NR |
| Tuomilehto, 2001172Eriksson, 1999280Lindstrom, 2003281Uusitupa, 2009282Finnish Diabetes Prevention StudyGood | NR |  **BL 12 m 24 mo 72 mo***Diabetes Mellitus, no. cases\****IG** -- 5 15(/265=5.7%) 27(/265=10.2%)**CG** -- 16 37(/257=14.4%) 59(/257=23.0%)()=calc **BL 10.2 years 10.6 years***Cardiovascular Disease events\*\****IG** -- 57 --**CG --** 54--*Deaths\*\*\****IG -- --**  6**CG -- --**  10*\* Diffs in incidence of DM statistically significant after 2 years. Using all person-years accumulated, cumulative incidence in IG was 58% lower (hazard ratio 0.4, 95% CI 0.3-0.7, p<0.001)**\*\*Hazard ratio (95% CI) 1.04 (0.72-1.51), adjusted for age and sex**\*\*\*Hazard ratio (95% CI) 0.57 (0.21-1.58), adjusted for age and sex* | NR | **Subgroup analyses:** Incidence of DM by success of attaining intervention goals; Incidence of DM by leisure-time physical activity **Other:** NR |
| Villareal, 2008173Villareal, 2006283Villareal, 2006284Fair | **QOL**Instrument used: SF-36\* Range: NR# of questions: NRDirectionality (higher score = better or worse): Higher score = better*\* All 8 domains reported, data abstracted for the three with significant differences between groups* | Mean (SD) at BL, Mean change (SD) at 6 mo **BL 6 months***SF-36 physical function domain***IG**  60.0 (21.0) 23.2 (20.9)\***CG** 67.0 (15.1) 2.5 (26.4)*SF-36 role limitations, physical domain***IG** 54.4 (43.5) 23.6 (35.9)\***CG** 62.5 (44.5) 5.0 (19.7)*SF-36 change in health domain***IG**  38.2 (12.3) 25.3 (13.2)\*\***CG** 38.0 (6.3) 0.0 (9.4)*VO2peak mL/kg per min***IG** 16.4 (2.3) 1.7 (1.6)\***CG** 15.7 (3.0) 0.3 (1.1)\* p<0.05 for IG vs CG\*\* p<0.001 for IG vs CG**IG n analyzed:** 17**CG n analyzed:** 10 | **% with adverse effect (calc)****%falling during PA sessions:** **IG CG**Fell 5.9 (N/A)0 experienced any a.e. in serum electrolyte concentrations or in renal or liver function test results at 6 moMean (SD) at BL, Percent change (NR) at 12 mo **BL 12 mo***Total hip bone mineral density, g/cm2***IG**  0.947 (0.115) -2.4 (2.5)\***CG** 0.993 (0.141) 0.1 (2.1)*Trochanter bone mineral density, g/cm2***IG** 0.716 (0.107) -3.3 (3.1)\***CG**  0.747 (0.152) -0.2 (3.3)*Intertrochanter bone mineral density, g/cm2***IG** 22.4 (7.0) -2.7 (3.0)\***CG**  24.8 (7.8) 0.3 (2.7)*Lumbar spine bone mineral density, g/cm2***IG**  1.107 (0.127) 0.9 (3.1)**CG**  1.127 (0.132) 1.3 (5.8)*Whole body bone mineral density, g/cm2***IG**  1.151 (0.127) -0.9 (1.7)**CG**  1.197 (0.138) 0.3 (2.1)*Spine bone mineral content, g***IG**  65.5 (11.6) 2.1 (6.1)**CG**  67.7 (17.1) 2.1 (4.9)*Whole body bone mineral content, g***IG** 2423 (474) -1.4 (2.5)**CG** 2606 (669) -1.7 (2.4) | **Subgroup analyses:** NR**Other:** Changes in body weight correlated directly with changes in BMD at the total hip, trochanter, and intertrochanter sites. |
| Werkman, 2010174Good | NR | NR | NR | **Subgroup analyses:** Men with low educational attainment (found group diffs in WC at 12-mo only, other outcomes NS)**Other:** Module 1 was used by 82%, Module 2 was used by 72%, Module 3 was used by 41%, Module 4 was used by 54%, and Module 5 was used by 16% |
| Whelton, 1998175Appel, 1995285Chao, 2000286Kumanyika, 2002287Trial of Nonpharmacologic Interventions in the Elderly Good | NR |  **12 mo 18 mo 30 mo***% free of medication, hypertension, and CV events after initial med withdrawn***IG1+IG2**  54.2 48.6 39.2**CG1+CG2**  42.2 38.6 26.2Hazard ratio (95% CI): 0.70 (0.57, 0.87)**IG1+IG2 n analyzed:** 291; **CG1+CG2 n analyzed:** 294*% with cardiac event*   **IG1 (WL) CG\***Stroke 0.0 0.6TIA 0.0 2.3MI 1.4 1.2Angina 6.8 5.6CHF 0.7 0.3Arrhythmia 1.4 1.2Other 4.1 5.6Total CV 14.3 16.7\*CG is both overweight and nonoverweight usual care *p>0.05 for IG vs CG, limiting CG to overweight only* | **Subset of 67 overweight women**No differences in the magnitude of change of bone mineral density of the spine, femoral neck, or total body between the IGs at 12 months (all p>0.30) When groups were combined, for each pound of weight loss the average decrease of BMD at 6 and 12 months were 0.0006 g/cm, i.e., 0.05%. No sig relationship at distant sites suggesting effects were more pronounced at the spine and not evident at the femoral neck, indicating exercise may be a protective factor for the femoral neck | **Subgroup analyses:** BP for those who were off antihypertensive meds by the last visit; BMD among subset of 67 overweight postmenopausal women (Chao 2000, RM #8229), outcomes by race (Kumanyika 2002, RM #8206)**Other:** HR (95% CI) for freedom from HTN med, high BP, and CV events by trial endIG (WL, WL + Na) vs CG: 0.70 (0.57, 0.87), p=0.001 |
| Wood, 1991177Kiernan, 2001288Fair | **Depression**Instrument used: Beck Depression InventoryRange: 0-63# of questions: 21Directionality (higher score = better or worse): worse | Mean (SD) at BL, Mean change (SD) at 12 mo **BL 12 mo***Depression*Men**IG1** 4.3 (3.2) 1.1 (3.8)**IG2** 5.4 (5.0) -0.2 (4.9)**CG** 5.5 (4.7) -0.7 (2.9)Women **IG1** 5.8 (4.1) -1.4 (4.4)**IG2** 6.0 (4.9) -0.3 (5.8)**CG** 6.0 (5.9) 0.3 (5.4)*Aerobic Capacity, mL/kg/min*Men**IG1** 34.8 (5.3) 1.6 (5.0)\*\***IG2** 33.8 (5.3) 8.6 (5.7)\*\***CG** 33.6 (3.8) -0.2 (4.1)Women**IG1** 26.6 (4.2) 1.4 (4.1)\*\***IG2** 26.5 (4.8) 6.4 (4.8)\*\***CG** 27.7 (3.3) 0.0 (4.4)*Estimated 12-year CHD risk, events/1000 persons*Men**IG1** -- -12.9 (23.2)\*\***IG2** -- -21.8 (24.1)\*\*\***CG** -- 0.6 (15.4)Women**IG1** -- -1.0 (4.6)**IG2** -- -3.5 (5.4)\*\*\***CG** -- 1.3 (6.3)*\*\*p<0.01 for diff between IG and CG;\*\*\*p<0.001*  | NR | **Subgroup analyses:** Sex**Other:** NR |
| Wood, 1988176Frey-Hewitt, 1990150Fair | NR | Mean (SD) at BL, mean change (SE) at 12 mo  **BL 12 mo***Resting metabolic rate (kcal/hr)***IG1** 77.14 (8.03) -6.21 (1.49)\***IG2** 75.30 (8.68) -0.95 (1.34)**CG** 73.33 (10.75) 1.13 (1.39)*VO2max***IG1** 33.81 (4.05) -0.27 (2.97)\***IG2** 35.33 (4.88) 4.16 (6.04) **CG** 33.72 (4.48) -2.41 (3.24)*\* p≤0.01 for IG vs CG* | NR | **Subgroup analyses:** NR**Other:** IG1 significantly different from CG at BL for RMR expressed as kcal/kg/hr, may have confused the interpretation of RMR changes for IG1 |
| Woollard, 2003178Fair | NR | NR | NR | **Subgroup analyses:** NR**Other:** NR |

**Abbreviations:** ACE=angiotensin-converting enzyme; ADAPT=Activity, Diet, and Blood Pressure Trial; ADL=activity of daily living; AE=adverse event; ASA=aspirin; BDI=Beck Depression Inventory; BL=baseline; BMD=bone mineral density; BMI=body mass index; BP=blood pressure; calc=calculated; CES-D=Center for Epidemiologic Studies Depression Scale; CG=control group; CHD=coronary heart disease; CHF=congestive heart failure; CI=confidence interval; Cl=chloride; CT=computed tomography; CV=cardiovascular; CVD=cardiovascular disease; DASH=Dietary Approaches to Stop Hypertension; DBP=diastolic blood pressure; diff=differ/difference; DISH=Dietary Intervention to Study Hypertension; DM=diabetes mellitus; DMV=Department of Motor Vehicles; DPP=Diabetes Prevention Program; DXA=dual-energy x-ray absorptiometry; ECG=electrocardiography; est=estimated; GP=general practitioner; H/O=history of; HDFP=Hypertension Detection and Followup Program; HDL=high-density lipoprotein; HOMA-IR=homostasis model of insulin resistance; HOT=Hypertension Optimal Treatment; HPT=Hypertension Prevention Trial; HTN=hypertension; IG=intervention group; IQR=interquartile range; ITT=intention to treat; LDL=low-density lipoprotein; med=medication; MI=myocardial infarction; N=no; n=number; NA=not applicable; Na=sodium; NR=not reported; NS=not significant; ODES=Oslo Diet and Exercise Study; OW=overweight; PA=physical activity; PATH=Physical Activity for Total Health; POWER=Pounds Off with Empowerment; PREDIAS=Prevention of Diabetes Self-Management Program; pt=patient; QOL=quality of life; RCT=randomized controlled trial; RMR=resting metabolic rate; SBP=systolic blood pressure; SCORE=Systematic Coronary Risk Evaluation; SDT=Self Determination Theory; SD=standard deviation; SE=standard error; SEM=standard error of the mean; SES=socioeconomic status; sig=significance; SR=sodium reduction; stat=statistics; TAIM=Trial of Antihypertensive Interventions and Management; TG=triglycerides; TIA=transient ischemic attack; TOHP=Trials of Hypertension Prevention; tx=treatment; UC=usual care; US=United States; VO2=maximal oxygen consumption; WC=waist circumference; WHLP=Women’s Healthy Lifestyle Project; WHO=World Health Organization; WL=weight loss; WLM=Weight Loss Management; wt=weight; x=times; Y=yes.