**Table 21a. BMI outcomes in studies on cardiovascular disease and/or type 2 diabetes mellitus**

| **Author, year** | **Arm** | **Outcome defined** | **Baseline N** | **Baseline BMI, mean** | **N at 12 months** | **BMI, 12 months, mean** | **Change from BL** | **Between-group Difference at 12 Months** | **Measure of association** | **Test for Trend** | **Variables adjusted for** | **Comment** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Self-management intervention |  |  |  |  |  |  |  |  |  |  |  |  |
| Clark, 20041 | 1 | kg/m2 | 50 | Mean: 31.3, SD: 5.01 | 50 | Mean: 32.72, SD: 4.77 | Mean: 1.42 |  |  |  |  | P=0.000 for change from baseline |
|  | 2 |  | 50 | Mean: 32.4, SD: 4.49 | 50 | Mean: 32.06, SD: 4.03 | Mean: -0.34 | Mean: -1.7695%CI: -0.2 to 3.7, P=0.075 (reference=control) |  |  |  | P=0.088 for change from baseline |
| Plotnikoff, 20112 | 1 | Kg/m2 | 49 | 34.8 (9) | 49 |  | -1.2 |  |  |  |  |  |
|  | 2 |  | 47 | 34.3 (5.7) | 47 |  | -0.8 |  |  |  |  |  |
| Diet intervention |  |  |  |  |  |  |  |  |  |  |  |  |
| Zazpe, 20083 | 1 | Kg/m2 | 485 | Mean: 29.5SEM: 3.6 | 485 |  | % with decreased BMI=41.2 |  | P=0.484 for chi squared test |  |  |  |
|  | 2 |  | 533 | Mean: 29.3SEM: 3.5 | 533 |  | % with decreased BMI=37.7 |  |  |  |  |  |
|  | 3 |  | 533 | Mean: 29.4SEM: 3.4 | 533 |  | % with decreased BMI=40.9 |  |  |  |  |  |
| Physical activity intervention |  |  |  |  |  |  |  |  |  |  |  |  |
| Torjesen, 19974 | 1 |  kg/m2 | 43 | Mean: 28.3SD : 3.1 | N : 43 |  | Mean change: 0.4, SD: 0.1 |  |  |  |  |  |
|  | 2 |  | 49 | Mean: 28.6SD : 3.1 | N : 49 |  | Mean change: -0.3, SD: 0.2 |  | Mean difference: -0.795%CI: -0.8 to -0.6, P<0.001 (reference= Arm 1) |  |  |  |
| Yates, 20105 | 1 | kg/m2 | Mean: 29.7, SD: 4.5 | N : 26 |  |  | Mean change (95%CI): -0.3, (-0.8 to 0.2)  |  |  |  | Baseline BMI | LLCI for Arm 3 should probably be -0.6 rather than +0.6 (? typographical error) |
|  | 2 |  | Mean: 28.7, SD: 5 | N : 24 |  |  | Mean change (95% CI): 0.1 (-0.5 to 0.7) |  | Arm 1: N=26Arm 2: N = 24Adjusted mean between-group difference from baseline0. 5 (95% CI: -0.3 to 1.2)P=0.212 (reference=control)Arm 2 vs Arm 3Mean between group difference from baseline0.3 |  |  |  |
|  | 3 |  | Mean: 29.3, SD : 5.1 | N : 24 |  |  | Mean change (95% CI) : -0.1 (-0.6 to 0.4)  |  | Arm 1: N=26Arm 3: N=24Adjusted mean between-group difference from baseline: 0.2 (-0.5 to 0.9)P= 0.575 (reference=control) |  |  |  |
| **Combination interventions** |  |  |  |  |  |  |  |  |  |  |  |  |
| Gram, 20106 | 1 | kg/m2 | 22 | Mean : 32.8SD : 4.0 | n : 20 | Mean : 32.6, SE: 0.9 |  |  |  |  |  |  |
|  | 2 |  | 24 | Mean : 32.4SD : 4.1 | n : 24 | Mean : 31.8, SE: 0.9 |  | Mean difference-0.71 (95% CI: -1.42 to 0.00)Se: 0.4P=0.049 |  |  |  |  |
|  | 3 |  | 22 | Mean : 31.4SD : 4.3 | n : 21 | Mean : 30.9, SE: 0.9 |  | Mean difference: -0.49 (95% CI: -1.23 to 0.25)Se: 0.4 |  |  |  |  |
| Samaras, 977 | 1 | 12 months minus baseline | 13 | Mean : 35.7SE: 1.6 |  | Mean : 0.29SE: 0.45 |  |  |  | No significant difference by arm with ANOVA or Mann Whitney test |  | Please note: at 12 months measurements were "Changes in Anthropometric & Metabolic Parameters" from baseline measures |
|  | 2 |  | 13 | Mean : 32.3 SE: 1.1 |  | Mean : -0.1SE: 0.05 |  |  |  |  |  |  |
| Babazono, 20078 | 1 | kg/m2 | 41 | Mean : 24SD : 2.5 | N : 41Check if this is the last timepoint reported | Mean : 23.9SD : 2.4 | -0.1 |  |  | No statistically significant differences in BMI between groups at baseline or after 1 yr of follow up |  |  |
|  | 2 |  | 46 | Mean : 23.6SD : 3.2 | N : 46Check if this is the last reported timepoint | Mean : 23.1SD : 3.2 | -0.5 |  | Mean between-group change from baseline: -0.4 |  |  |  |

ANOVA = Analysis fo Variance test; BMI = Body Mass Index; CI = Confidence Interval; Kg/m^2 = kilogram per meter squared; LLCI = Lower Level Confidence Interval; N = Sample Size; SD = Standard Deviation; SE = Standard Error; SEM = Standard Error of the Mean; Yr = Year;

**References**

 1 Clark M, Hampson SE, Avery L, et al. Effects of a tailored lifestyle self-management intervention in patients with Type 2 diabetes. Br. J. Health Psychol. 2004; 9(3):365-79.

 2 Plotnikoff RC, Pickering MA, Glenn N et al. The effects of a supplemental, theory-based physical activity counseling intervention for adults with type 2 diabetes. J Phys Act Health 2011; 8(7):944-54.

 3 Zazpe I, Sanchez-Tainta A, Estruch R, et al. A large randomized individual and group intervention conducted by registered dietitians increased adherence to Mediterranean-type diets: the PREDIMED study. J Am Diet Assoc 2008; 108(7):1134-44; discussion 1145.

 4 Torjesen PA, Birkeland KI, Anderssen SA, et al. Lifestyle changes may reverse development of the insulin resistance syndrome. The Oslo Diet and Exercise Study: a randomized trial. Diabetes Care 1997; 20(1):26-31.

 5 Yates T, Davies MJ, Gorely T, et al. The effect of increased ambulatory activity on markers of chronic low-grade inflammation: evidence from the PREPARE programme randomized controlled trial. Diabetic Med 2010; 27(11):1256-63.

 6 Gram B, Christensen R, Christiansen C, et al. Effects of nordic walking and exercise in type 2 diabetes mellitus: A randomized controlled trial. Clin. J. Sport Med. 2010; 20(5):355-61.

 7 Samaras K, Ashwell S, Mackintosh AM, et al. Will older sedentary people with non-insulin-dependent diabetes mellitus start exercising? A health promotion model. Diabetes Res Clin Pract 1997; 37(2):121-8.

 8 Babazono A, Kame C, Ishihara R, et al. Patient-motivated prevention of lifestyle-related disease in Japan: A randomized, controlled clinical trial. 2007; 15(2).

 9 Razquin C, Martinez JA, Martinez-Gonzalez MA, et al. A mediterranean diet rich in virgin olive oil may reverse the effects of the-174g/c il6 gene variant on 3-year body weight change. Mol. Nutr. Food Res. 2010; 54(SUPPL. 1):S75-S82.

 10 Abraira C, de Bartolo M, Myscofski JW. Comparison of unmeasured versus exchange diabetic diets in lean adults. Body weight and feeding patterns in a 2-year prospective pilot study. Am J Clin Nutr 1980; 33(5):1064-70.

 11 Anderssen SA, Haaland A, Hjermann I, et al. Oslo Diet and Exercise Study: a one year randomized intervention trial; effect on hemostatic variables and other risk factors. Nutr Metab Cardiovasc Dis 1995; 5:pp 189-200.

 12 Kumanyika SK, Cook NR, Cutler JA et al. Sodium reduction for hypertension prevention in overweight adults: further results from the Trials of Hypertension Prevention Phase II. Journal of Human Hypertension 2005; 19(1):33-45.

 13 Stefanick ML, Mackey S, Sheehan M, et al. Effects of diet and exercise in men and postmenopausal women with low levels of HDL cholesterol and high levels of LDL cholesterol. N Engl J Med 1998; 339(1):12-20.

 14 Razquin C, Martinez JA, Martinez-Gonzalez MA, et al. A 3 years follow-up of a Mediterranean diet rich in virgin olive oil is associated with high plasma antioxidant capacity and reduced body weight gain. European Journal of Clinical Nutrition 2009; 63(12):1387-93.

 15 Toobert DJ, Strycker LA, King DK, et al. Long-term outcomes from a multiple-risk-factor diabetes trial for Latinas: inverted exclamation markViva Bien! Transl Behav Med 2011; 1(3):416-26.