

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
	Low-fat diet												
Mellies 683	Randomized: unclear Self-selected: unclear Included: >115% IBW Dyslipidemic subjects Mean age: 52.9 Mean weight: ng Female/Total: ng/45	1. Control (no diet) 2. Low-fat diet plus placebo 3. Low-fat diet plus sucrose polyester (17 g)	16	Exercise: no Behavioral: no	1. n/a 2. ng 3. 7 kcal/lb group 3: SPE provided as a spread (27 g)	1. n/a 2. 15% fat CHO: ng protein: ng	unclear	q2w	1. 4/15 (27%) 2. 0/12 3. 5/18 (28%) 3 drop-out b/c side effects	not given	<u>Weight in kg</u> 1. (11) -2.6 (-4.2, -1.0) 2. (12) -3.9 (-5.4, -2.4) 3. (13) -3.4 (-4.9, -1.9) p value not given <u>2vs1</u> -1.3 (-2.8, 0.20) <u>3vs2</u> 0.5 (-0.9, 1.9) <u>3vs1</u> -0.8 (-2.26, 0.66)		The mean rate of weight change was -0.16 kg/week for the placebo and -0.25 kg/week for both the diet and the SPE groups. Side effects: Plasma levels of vitamin A did not consistently change from the baseline value in the placebo, diet, and SPE groups. Plasma vitamin E values were consistently below baseline for all groups during treatment. Plasma vitamin E levels in the SPE group were consistently below those of the other groups and at the conclusion of treatment, 23% below the initial value. Plasma vitamin D values of all groups decreased throughout the treatment period. There was no significant difference between the SPE and the other groups. PTT and PT were essentially unchanged
Rigaud 686	Randomized: unclear Self-selected: no Included: BMI: ≥25 Mean age: 36.9 Mean weight: 78.9 Female/Total: 41/52	1. Control: Low-calorie diet 2. Low-calorie diet + fiber	24	Exercise: no Behavioral: no	1. n/a 2. 25-30% below energy intake	not given	no contact	unclear	Withdrawal: discontinuance related to treatment while drop-outs are for other reasons. Group 1: withdrawals: 15, drop-out 2, Group 2: 9 withdrawals, 3 drop-outs. Side effects were predominantly GI and occurred with the same incidence in both groups.	<u>Weight in kg</u> 1. (26) 80.9 (75.5, 86.3) 2. (26) 76.9 (72.6, 81.2)	<u>Weight in kg</u> 1. (9) -3 (-1.8, -4.2) 2. (17) -5.5 (-4.0, -7.0) p value not given		The weight loss in fiber group was already apparent after 2 months of therapy.

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Dengel 399	Randomized: unclear Self-selected: unclear Included: BMI >25 Mean age: 61 Mean weight: 90.5 Female/Total: 0/77	1. AHA diet followed by weight maintenance 2. AHA diet followed by weight loss	36	Exercise: no Behavioral: Yes Format: unclear Frequency: qw	1. ng 2. to lose 0.25-0.5 kg/w	AHA step I	group	weekly	1. 10/24 (42%) 2. 25/53 (47%)	Weight in kg 1. (14) 88 (CI 81.6, 94.4) 2. (28) 93 (95% CI 89.5, 96.5)	Weight in kg 1. (14) 0 2. (28) -11 2vs1 -11 (-14, -7.7)		There was a strong negative correlation between HDL and WHR (r = -0.37, p<0.05) and a positive correlation between TG and WHR (r = 0.48, p<0.01) and waist circumference (r = 0.38, p<0.05) Body composition: hydrostatic VO ₂ Max: L/min
Marniemi 402	Randomized: unclear Self-selected: yes Included: 30-50% overweight Mean age: 38 Mean weight: 96.3 Female/Total: 82/110	1. Control (no diet) 2. Mixed diet 3. Lactovegetarian diet	10	Exercise: no Behavioral: no	1. n/a 2. 1200 3. 1200	2. Moderate meat, fish and egg 25-30% protein, 25-30% fat, 45-50% CHO 3. 20-25% protein (no meat fish, or egg) 20-25% fat, 55-60% CHO	group	weekly x 10 wks, 5 times during the year	not given	Weight in kg 1. (42) 97.1 (92.7, 101.5) 2. (37) 93.8 (89.5, 98.1) 3. (31) 98.3 (93, 103.6)	Weight in kg 2. (37) -10.2 3. (31) -10.1 *no data at 10 weeks for group 1	Weight in kg 6 months 1. (42) 98.6 (95% 94.1, 103.1) 2. (37) 81.5 (95%CI 77.6, 85.4) 3. (31) 86.5 (95%CI 82, 91) 2vs1 p<0.001 Weight in kg 12 months 1. (42) 98.7 (94.4, 103) 2. (37) 83.4 (79.6, 87.2) 3. (31) 89.1 (84.7, 93.5) 2vs3 p<0.001	In moderately overweight subjects, VO ₂ weight reduction with the aid of a low-calorie, mixed diet without increasing the exercise level causes favorable responses in lipid metabolism, which remain many months after the cessation of weight reduction.
Hakala 364	Randomized: unclear Self-selected: yes Included: 30-50% IBW Mean age: 38 Mean weight: 96.3 Female/Total: 82/110	1. Control (no intervention) 2. Lactovegetarian weight reduction group 3. Mixed-diet weight reduction program	52	Exercise: no Behavioral: no	not given	2. lactovegetarian, no meat, fish or eggs, 20-25% fat 55-60% CHO 20-25% protein 3. moderate meat, fish and eggs, 25-30% fat 45-50% CHO 25-30% protein	group	weekly x 10, 5 motivation sessions	1. 2/46 (4%) 2. 15/46 (33%) 3. 9/46 (20%)	Weight in kg 1. (42) 97.1 (92.61, 101.59) 2. (31) 98.3 (92.83, 103.77) 3. (37) 93.8 (89.33, 98.27)	Weight in kg 1. (ng) 1.6 2. (ng) -9.2 3. (ng) -10.4 2vs1 p<0.001 3vs1 p<0.001		
Shah 443	Randomized: unclear Self-selected: unclear Included: >20-40% IBW	1. Conventional low-energy diet 2. Low-fat ad libitum complex carbohydrate	26	Exercise: yes encouraged Behavioral: yes	4.2 -5.0 MJ/d	1. 30% fat 2. high-CHO, 20 g fat, unrestricted high complex	group	weekly x 6 then biweekly x 20	overall 33/122 (27%)	Weight in kg 1. (42) 79.3 (0.80, 80.80) 2. (47) 80.4 (0.99, 81.81)	Weight in kg 1. (42) -3.8 (-4.05, -3.55) 2. (47) -4.4 (-4.63, -4.17) 2vs1 -0.60 (-0.84, -0.36)		

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	Mean age: 36 Mean weight: 79.8 Female/Total: all	diet				CHO							
Schlundt 582	Randomized: unclear Self-selected: yes Included: >120% IBW Mean age: 42 Mean weight: 89.2 Female/Total: 52/60	1. Low-calorie, low-fat diet 2. Low-fat ad libitum CHO	16-20	Exercise: no Behavioral: yes Format: group, weekly	1. 1200-1500 2. CHO ad libitum	1. 25g fat 2. 25g fat	group	weekly	1. 6/30 (20%) 2. 5/30 (17%)	<u>Weight in kg</u> 1. (30) 91.8 (86.2, 97.4) 2. (30) 86.6 (81.4, 91.8)	<u>Weight in kg</u> 1. (24) -8.8 (-10.8, -6.8) 2. (25) -4.6 (-6.1, -3.1) <u>2vs1</u> p<0.001 <u>Weight in kg, men</u> 1. (4) -11.8 (-22.0, -1.6) 2. (4) -8 (-10.1, -5.9) <u>Weight in kg, women</u> 1. (20) -8.2 (-10.2, -6.2) 2. (21) -3.9 (-5.6, -2.2) Male vs females p<0.001	<u>Weight in kg</u> 12 months 1. (18) -5.5 (-8.2, -2.8) 2. (17) -2.6 (-5.0, -0.2)	
Hammer 434	Randomized: unclear Self-selected: yes Included: >130% body fat premenopausal Mean age: ng Mean weight: 88.7 Female/Total: 36/36	1. Low-fat, ad libitum carbohydrate diet with no exercise 2. Low-fat, ad libitum carbohydrate diet with exercise 3. Calorie-restricted, low-fat, high-CHO diet with no exercise 4. Calorie-restricted, low-fat, high-CHO diet with exercise	16	Exercise: yes aerobic 5 d/w Behavioral: yes format: group weekly	1,2. >1195 kcal 3,4. 800 kcal	1,2. >65g protein, >179g CHO, <25g fat 3,4. 50g protein, 114g CHO, 16 g fat	group	weekly	overall 10/36 (28%)	<u>Weight in kg</u> 1. (4) 98.8 (71.1, 126.5) 2. (8) 84.1 (70.0, 98.2) 3. (8) 89.1 (80.0, 98.2) 4. (6) 87.7 (64.0, 111.4) 1,2. (12) 89 (77.7, 100.3) 3,4. (14) 88.5 (79.1, 97.9) 1,3. (12) 92.3 (83.7, 100.9) 2,4. (14) 95.6 (84.7, 106.5)	<u>Weight in kg</u> 1. (4) -5.8 2. (8) -6.7 3. (8) -9.5 4. (6) -12.9 1,2. (12) -6.4 3,4. (14) -11.0 1,3. (12) -8.2 2,4. (14) -19.3 <u>2vs1</u> : -0.9 (-14, 12) <u>3vs1</u> : -3.7 (-14, 7.4) <u>4vs3</u> : -3.4 (-16, 10) <u>4vs2</u> : -6.2 (-21, 8.7) Low-fat vs ↓ calorie <u>1,2 vs 3,4</u> -4.6 (-17.3, 8.9)		

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Katzel 369	Randomized: unclear Self-selected: yes Included: 120-160% IBW, non smokers Mean age: 61 Mean weight: 91.07 Female/Total: 0/170	1. Control 2. Weight Loss 3. Aerobic exercise	9mo	Exercise: yes <i>For group 3:</i> aerobic Minutes/Time per week: 45min x 3 Activity on their own at home: unclear Behavioral: no	2. to lose 10% at 9 months 3. AHA step I	no given	group	weekly	1. 8/26 (31%) 2. 25/73 (34%) 3. 19/71 (27%)	Weight in kg 2. (73) 94.3 (95%CI 91.7, 96.9)	Weight in kg 2. (44) -9.5 (95%CI 8.1, 10.9) p value not given fat wt. gp2 p<.001		Pearson product-moment correlation coefficients Change in weight and TG: 0.36 Cholesterol: 0.38 LCL: 0.43 HDL: -0.46
Wood 380	Randomized: unclear Self-selected: yes Included: BMI 28-34 for premenopausal women and 24-30 for men Mean age: 39.7 Mean weight: 86.7 Female/Total: 132/264	1. No intervention 2. Diet alone 3. Diet and exercise	52	Exercise: yes 45min x3 Behavioral: no	1. n/a 2. NCEP I 3. NCEP I	30% fat 55% CHO	group	qwx3mo q2wx3 9mo	Overall 27/264 (10%)	not given by groups	Weight in kg, men 1. (40) 1.7 (0.2, 3.2) 2. (40) -5.1 (-7.0, -3.2) 3. (39) -8.7 (-10.5, -6.9) Weight in kg, women 1. (39) 1.3 (-0.4, 3.0) 2. (31) -4.1 (-6.1, -2.1) 3. (42) -5.1 (-6.8, -3.4) no p value given for wt.		Baseline for men: baseline for women weight 98.4 ± 9.7 kg, 75.0 ± 7.6 fat weight 27.7 ± 5.9 kg, 26.9 ± 5.4
Marks 435	Randomized: unclear Self-selected: yes Included: >20-50% IBW Mean age: 38.5 Mean weight: 78.7 completers Female/Total: all/67	1. Control (no diet, no exercise) 2. Diet only (low-fat, calorie-restricted diet) 3. Diet and cycling (low-fat, calorie-restricted diet and exercise on stationary ergometer) 4. Diet and resistance training (low-fat, calorie-restricted and resistance training) 5. Diet and resistance training and cycling	20	Exercise: yes aerobic, 70-85% HR, 30 min x3 Behavioral: no	>1200 kcal/d	not given	individual and group	q2weeks	1. 2/10 (20%) 2. 2/12 (17%) 3. 8/16 (50%) 4. 4/15 (27%) 5. 4/14 (28%)	Weight in kg 1. (6) 75.7 (65.00, 86.40) 2. (10) 81.4 (74.03, 88.77) 3. (8) 77.3 (69.53, 85.07) 4. (11) 80 (74.63, 85.37) 5. (9) 81.8 (76.03, 87.57)	Weight in kg 1. (6) 1.5 (-0.18, 3.18) 2. (10) -3.7 (-6.85, -0.55) 3. (8) -4.5 (-6.76, -2.24) 4. (11) -3.5 (-5.78, -1.22) 5. (9) -5.4 (-8.09, -2.71) <u>2vs1</u> -5.20 (-7.74, -2.66) <u>3vs2</u> -0.80 (-3.39, 1.79) <u>3vs1</u> -6.0 (-7.84, -4.16) <u>4vs3</u> 1.0 (-1.10, 3.10) <u>4vs1</u> -5.0 (-6.95, -3.05) <u>4vs2</u> 0.2 (-2.34, 2.74) <u>5vs1</u>		

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											-6.9 (-9.06, -4.74)		
Simkin-Silverman 373	Randomized: yes Self-selected: not Included: BMI 20-34 includes non-overweight Mean Age: 46.9 Mean Weight: ng Female/total: 535/535	1. Control (no intervention) 2. Intervention group (low-fat, exercise and behavioral therapy)	on-going	Exercise: yes 1500 cal/wk Behavioral: yes group qwx10, q2w	1300-1500 Kcal	25% fat	group	qwx10, q2w	overall 15	Weight in kg 1. (267) 67.1 (65.9, 68.3) 2. (253) 67.3 (66.1, 68.5) no p value stated		Weight in kg 6 months 1. (267) -0.22 (-0.59, -.15) 2. (253) -4.8 (-5.4, -4.3) <u>2vs1</u> -4.58 (-5.1, -4.1)	Weight: of the 56 mildly overweight participants with a 10 lb goal, the mean weight loss was 4.9 kg (10.8,a,9.1lb) with 55% meeting their weight loss goal, and of the 75 overweight participants with a 15 lb goal the mean weight loss was 6.4 kg (14,a,13.1lb) with 45% meeting their goal. The ANCOVA for physical activity (i.e movement) as measured by the Caltrac was significant after adjusting for baseline differences (p<0.001). The intervention group showed an increase of 3.2 motion counts per hour compared to a change of 0.08 in the control group. Compliance: The number of treatment sessions attended was significantly correlated with change in risk factors such as weight (r =-0.48, p<0.001), WHR (r =-0.13, p<0.001), LDL (r =-0.19, p<0.001),TG (r =-0.1, p<0.05) and glucose (r =-0.18, p<0.005)
Hellenius 365	Randomized: unclear Self-selected: not Included: non-overweight Mean age: 46.2 Mean weight: 25.3mg/kg ² Female/Total: 0/158	1. No intervention 2. Diet alone 3. Exercise alone 4. Diet and exercise	24	Exercise: yes group 3,4 30-45 min x3	1. n/a 2. NCEP step I 3. n/a 4. NCEP step I	<30% fat 50% CHO 20% protein	individual	3 times	1. 1/40 (2.5%) 2. 0 3. 0 4. 0	BMI 1. (39) 24.5 (23.5, 25.5) 2. (40) 25.2 (24.3, 26.1) 3. (39) 25.3 (24.4, 26.3) 4. (39) 26.1 (24.9, 27.3)	BMI 1. (39) 0.3 (0.1, 0.5) 2. (40) -0.3 (-0.6, 0.03) 3. (39) -0.3 (-0.5, -0.01) 4. (39) -0.6 (-0.9, -0.3) <u>4vs3</u> -0.3 (-0.57, -0.03) <u>4vs2</u> -0.30 (-0.6, 0.0) <u>4vs1</u> -0.90 (-1.15, -0.65) <u>3vs1</u> -0.60 (-0.82, -0.38)		

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											3vs2 -0.0 (-0.28, 0.28) 2vs1 -0.60 (-0.86, -0.34)		
Schuler 405	Randomized: yes Self-selected: not Included: CAD Mean age: 53.5 Mean weight: 26.5 mg/kg ² Female/Total: 0/113	1. Control 2. Low-fat diet plus exercise	52	Exercise: yes aerobic cycle ergo, 30 min x 7 + 60 min x 2 Behavioral: no	not stated	15% protein 65% CHO <20% fat	group	5x per yr	1. 4/57 (7%) 2. 5/56 (9%)	<u>BMI</u> 1. (52) 26.4 (25.8, 27.0) 2. (40) 26.7 (25.9, 27.5) no p value given for BMI	<u>BMI</u> 1. (52) -0.2 2. (40) -1.6 <u>2vs1</u> -1.4 (-2.2, -0.6)		
Lean 70219	Randomized: unclear Self-selected: unclear Included: BMI >25 kg/m ² Mean age: 50.6 Mean weight: 84.4 Female/Total: 110/110	1. Low carbohydrate diet 2. High carbohydrate diet	24	Exercise: no Behavioral: no	1200	1. 35% CHO 2. 58% CHO	Individual contact via telephone	Every 6 weeks	Not given	<u>Weight (kg)</u> 1. (53) 84.8 (80.9, 88.6) 2. (57) 83.9 (79.3, 88.5)	<u>Weight (kg)</u> 1. (40) -6.8 (-8.4, -5.2) 2. (42) -5.6 (-7.1, -4.1) <u>2vs1</u> 1.2 (-0.33, 2.73)		
Sheppard 444	Randomized: unclear Self-selected: not Included: <150% IBW included subjects at risk of breast cancer Mean age: 55.6 Mean weight: 67.8 Female/Total: 303/303	1. Control (no intervention) 2. Low-fat diet	52 (24)	Exercise: no Behavioral: yes Format: group, qwx8, q2w	1. n/a 2. no change	1. n/a 2. 20% fat	group	1. n/a 2. qwx8, q2w	1. 14/119 (12%) 2. 13/171 (7.6%)	<u>Weight in kg</u> 1. (105) 66 (64.1, 67.9) 2. (171) 68.9 (67.3, 70.5)	<u>Weight in kg</u> 1. (105) -0.4 (-1.1, 0.3) 2. (171) -3 (-3.7, -2.3) <u>2vs1</u> -2.6 (-3.3, -1.90)	<u>Weight in kg</u> 104 weeks 1. (105) -0.1 (-0.9, 0.7) 2. (171) -1.9 (-2.6, -1.2) <u>2vs1</u> -1.8 (-2.5, -1.1)	The weight loss associated with a reduction in fat intake of 1% of total energy ranged from 0.25 to 0.10 kg. These regression models showed no significant effects of energy reduction once the effects of dietary fat were controlled for. (All energy intake data comes from 4-day recall). Fewer than 10% were taking diuretics and no subjects were taking appetite suppressants.
Colman 415	Randomized: unclear Self-selected: unclear Included: includes non-overweight Mean age: 60.5 Mean weight: 90.4 Female/Total: 0/99	1. Control (no diet) 2. Low-calorie diet low-fat	9 mo	Exercise: no Behavioral: format: group, weekly	1. n/a 2. goal to, lose 0.25-0.5 kg/w AHA step I	not given	unclear	weekly	1. 11/26 (42%) 2. 38/73 (52%)	<u>Weight in kg</u> 1. (15) 89 (81.8, 96.2) 2. (35) 91 (87.6, 94.4)	<u>Weight in kg</u> 1. (15) 1.0 (-6.53, 8.53) 2. (35) -9.0 (-12.3, -5.67) <u>2vs1</u> -10 (-14.72, -5.28)		

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Singh 690	Randomized: yes Self-selected: no Included: AMI within 24 hrs, includes non-overweight Mean age: 50.5 Mean weight: 66 Female/Total: ng/406	1. Usual Diet 2. Low-energy, high fruit and vegetable diet	24	Exercise: no Behavioral: no	not stated	not given	unclear	weekly	1. 5/202 (2%) 2. 6/204 (2%)	<u>Weight in kg</u> 1. (202) 65.3 (n/a, n/a) 2. (204) 66.6 (65.2, 68.0)	<u>Weight in kg</u> 1. (179) -2.2 (n/a, n/a) 2. (182) -5.3 (n/a, n/a) net change: 3.1 (1.28, 4.92)		
Kaplan 474	Randomized: unclear Self-selected: yes Included: diabetes Mean age: ng Mean weight: ng Female/Total: 44/76	1. Control (no intervention) 2. Diet alone 3. Exercise alone 4. Diet and exercise	10	Exercise: yes aerobic 60 min x3 Activity at home: 2 x wk Behavioral: yes	all groups 1200 kcal	50% CHO 20% protein 30% fat	group	weekly	not stated	<u>Weight in kg</u> 1. (ns) 92.16 2. (ns) 83.87 3. (ns) 89.21 4. (ns) 92.05		<u>Weight in kg</u> 6 months 1. (ns) 1 (n/a, n/a) 2. (ns) -3.49 (n/a, n/a) 3. (ns) -1.42 (n/a, n/a) 4. (ns) -0.24(n/a, n/a) <u>2vs1</u> p<0.02 <u>Weight in kg</u> 12 weeks 1. (ns) 1.37 (n/a, n/a) 2. (ns) -2.52 (n/a, n/a) p<0.03 *data for groups 3 and 4 not given	
de Bont 440	Randomized: unclear Self-selected: not Included: diabetes, includes non-overweight Mean age: 55 Mean weight: 72.5 Female/Total: 148/148	1. Low-CHO diet 2. Low-fat diet	24	Exercise: no Behavioral: no	1. ng 2. ng	1. 40% CHO 2. 30% fat	individual	3 visits	overall 12/148 (8%)	<u>Weight in kg, obese</u> 1. (35) 84.8 (n/a, n/a) 2. (34) 84.2 (n/a, n/a) <u>Weight in kg, non-obese</u> 1. (29) 59 (n/a, n/a) 2. (36) 60.1 (n/a, n/a)	<u>Weight in kg, obese</u> 1. (35) -0.9 (-2.1, 0.3) 2. (34) -2.7 (-4.0, -1.4) <u>2vs1</u> -1.80 (-3.03, -0.57) <u>Weight in kg, non-obese</u> 1. (29) 0.1 (-0.7, 0.9) 2. (36) -0.4 (-1.3, 0.5) <u>2vs1</u> -0.50 (01.34, 0.34)		

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Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
Milne 702	Randomized: unclear Self-selected: not Included: diabetes, includes non-overweight Mean age: 59 Mean weight: 80.7 Female/Total: 35/70	1. Weight-management diet 2. Modified lipid diet 3. High- carbohydrate, high-fiber diet	18 mo (24 w)	Exercise: no Behavioral: no	1. 500 kcal less than EER if BMI >25 2. ng, 45% CHO 3. ng, 55% CHO	1. ng 2. 36% fat 3. 30% fat	unclear	Unclear	overall 6/70 (8.6%)	<u>Weight in kg</u> 1. (21) 78.3 (72.9, 83.7) 2. (22) 83.1 (75.6, 90.6) 3. (21) 80.8 (77.3, 84.3)	<u>Weight in kg</u> 1. (21) +1.5 (-4.3, 7.3) 2. (22) -1.0 (-8.6, 6.6) 3. (21) -0.1 (-5.7, 5.6) <u>2vs1</u> -2.5 (-9, 4.08) <u>3vs1</u> -1.6 (-7.2, 3.98)		No overall significant differences were observed in weight during the study. Almost none of the participants succeeded in achieving currently recommended intakes of either CHO or unsaturated fat.
Walker 698	Randomized: unclear Self-selected: unclear Included: diabetes, includes non-overweight Mean age: 58.3 Mean weight: 79.8 Female/Total: 15/24	1. High-CHO low-fat diet 2. Modified-fat diet *Cross-over 1 month wash-out period	12	Exercise: no Behavioral: no	1. ng 2. ng	1. 21% fat 59% CHO 2. 40% fat 40% CHO	individual	1 time only	None	<u>Weight in kg</u> 1. (24) 79.5 (73.3, 85.7) 2. (24) 80.1 (44.1, 56.1)	<u>Weight in kg</u> 1. (24) -0.7 (-0.83, -0.57) 2. (24) -1.3 (-1.5, -1.1) <u>2vs1</u> -0.6 (-0.77, -0.43)		
Walker 720	Randomized: unclear Self-selected: unclear Included: diabetes, includes non-overweight Mean age: 61.8 Mean weight: 75.8 Female/Total: 10/16	1. High-CHO low-fat diet 2. Modified-fat diet *cross-over 1 month wash out period	12	Exercise: no Behavioral: no	1. ng 2. ng	1. 20% fat 59% CHO 2. 40% fat, 20% protein	unclear	Unclear	Not reported	<u>Weight in kg</u> 1. (16) 75.8 (70.5, 81.1) 2. (16) 76.2 (71.3, 81.1)	<u>Weight in kg</u> 1. (16) -1.1 2. (16) -1.3 no p-value for wt		
Franz 701	Randomized: unclear Self-selected: yes Included: diabetes Mean age: 55.9 Mean weight: 93.7 Female/Total: ng/247	1. Basic nutrition care 2. Practice guidelines nutrition care	12	Exercise: no Behavioral: no	1. ng 2. ng	1. ng 2. ng	individual	1. 1 time only 2. q6w x 2	overall: 68/247 (28%)	<u>Weight in kg</u> 1. (85) 93.7 (95%CI 88.9, 98.5) 2. (94) 93.8 (95%CI 89.7, 97.9)		<u>Weight in kg</u> 6 months 1. (85) 92 (87.4, 96.6) 2. (94) 92.4 (88.4, 96.4) <u>2vs1</u> 0.30 (-4.42, 5.02)	
Gordon 70030	Randomized: unclear Self-selected: yes Included: hypertensive Mean age: 48	1. Exercise training 2. Diet 3. Exercise and diet	12	Exercise: no Behavioral: no	1. na 2. ng 3. ng	1. na 2. <20% fat 3. <20% fat	individual	Bimonthly	1. 0/14 2. 2/17 3. 5/24	<u>Weight (kg)</u> 1. (14) 101.9 (88.6, 115.2) 2. (15) 100.5 (86.5,	<u>Weight (kg)</u> 1. (14) -1 (2.0,4) 2. (15) -5.8 (-7.9, -3.6) 3. (19) -7.1 (-8.5, -5.7)		Encouraged to ↓ NA+ ≤2,300 mg/day and ≤28 g of alcohol per day

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
	Mean weight: 98 Female/Total: 38/55									114.5) 3. (19) 92.7 (85.9, 99.4)			
		VLCD vs LCD											
Wing 576	Randomized: unclear Self-selected: yes Included: >130% IBW diabetes Mean age: ng Mean weight: 103.2 Female/Total: ng/36	1. Low-calorie diet 2. VLCD	20	Exercise: no Behavioral: yes group, weekly	1. 1000-1500 2. 400 x8w then 1000-1500	1. ADA 2. Optifast-70	group	weekly	overall 3/36 (8.3%)	not given	1. (ns) -10.1 2. (ns)-18.6 p<0.003		
Wadden 436	Randomized: unclear Self-selected: unclear Included: ng Mean age: 42.1 Mean weight: 106 Female/Total: 89/89	1. VLCD alone 2. Behavioral therapy + Low-calorie diet 3. VLCD + behavioral therapy	24	Exercise: no Behavioral: yes group, weekly	1.400-500 x8 then 1200 2. 1200 3.400-500 x8 then 1200	not given	group	weekly	overall 13/89 (15%)	not given	<u>Weight in kg</u> 1.(23) -13.1 (-15.2, -11.0) 2. (22) -13 (-15.9, -10.1) 3. (31) -16.8 (-19.3, -14.3)	<u>Weight in kg</u> 12 months 1. (21) -4.7 (-7.8, -1.6) 2. (22) -6.6 (-10.6, -2.6) 3. (25) -10.6 (-13.9, -7.3) <u>Weight in kg</u> 5y, corrected weights 1. (18) 1 (-2.4, 4.4) 2. (15) 2.7 (-1.2, 6.6) 3. (22) 2.9 (-2.1, 7.9)	One year follow-up: 8 drop out (2 became pregnant). Five year follow-up: 29 weighed at the clinic and 26 self-reported their weight was corrected by adding 2 kg. A large proportion of subjects in each group received additional weight loss therapy after one year follow-up (78%, 14/18) in diet alone, 40% (6/15) in behavior therapy and 45% (10/22) in combined therapy. Approximately 61% (11/18) of the diet alone subjects equalled or exceeded their pretreatment weight at the 5 year follow-up as compared with 60% (9/15) and 68% (15/22) of the behavior therapy alone and the combo. The comparable % for the 1 year follow-up had been 14% (3/21), 18% (4/22) and 8% (2/25).
Foster 721	Randomized: unclear Self-selected: unclear Included: not given Mean age: ng Mean weight: 104.5 Female/Total: 13/13	1. Balanced diet + exercise 2. VLCD + exercise	24 (10,15)	Exercise: yes 1.6 km 3x/wk Behavioral: no	1. 1000-1200 2. 500 x8	1. 30% fat 60% CHO 10% protein 2. 30% fat 70% protein	group	weekly	none	<u>Weight in kg</u> 1. (8) 103.7 (91.8, 115.5) 2. (5) 99.1 (68.6, 129.6)	<u>Weight in kg</u> 1. (8) -8.1 (-19.85, 3.65) 2. (5) -9.5 (-37.25, 18.25) <u>2vs1</u> -1.4 (-17.28, 14.48)		

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
Wadden 477	Randomized: unclear Self-selected: yes Included: ng Mean age: 43.9 Mean weight: 108.9 Female/Total: 50/59	1. VLCD alone 2. Behavioral therapy with low-calorie diet 3. VLCD with behavioral therapy	24 (12)	Exercise: no Behavioral: yes group, q2wx8,qmo	2. 1000-1200 1,3. 400-500 x8	1. 30% fat 15% protein 55% CHO 2. protein sparing modified fast	group	weekly	1. 3/18 (17%) 2. 2/18 (11%) 3. 4/23 (17%)	<u>Weight in kg</u> 1. (15) 106.4 (96.2, 116.6) 2. (16) 112.2 (100.7, 123.7) 3. (19) 108 (97.6, 118.4)	<u>Weight in kg</u> 1. (15) -14.1 (-16.9, -11.3) 2. (16) -14.3 (-17.9, -10.7) 3. (19) -19.3 (-23.3, -15.3) <u>3vs1</u> p<.02 <u>3vs2</u> p<.02	<u>Weight in kg</u> 12 months 1. (15) -4.7 (-8.7, -0.7) 2. (16) -9.5 (-13.1, -5.9) 3. (19) -12.9 (-17.4, -8.4) <u>1vs2vs3</u> p<.05 <u>Weight in kg</u> 3 yrs 1. (ns) -2.2 (n/a, n/a) 2. (ns) -3.54 (n/a, n/a) 3. (ns) -5.11 (n/a, n/a)	Weight at 3 years has been corrected for 19 patients with additional weight loss program between 1 year and 3 year follow-up. Men lost more weight than women both posttreatment (21.9 vs 15.2 kg) and 1 year follow-up (13.3 vs 9.0). Differences between groups were not significant, however, as determined by ANCOVA (with initial weight as covariate).
Wadden 437	Randomized: unclear Self-selected: yes Included: >25kg overweight Mean age: 39 Mean weight: 106.3 Female/Total: 49/49	1. Behavioral therapy with balanced deficit diet 2. Behavioral therapy with VLCD	52 (17,26)	Exercise: yes 20-40 min, 3-5 x/week Behavioral: yes group, weekly	1. 1200 2. 420 x16 then 1200	1. 30% fat 55% CHO 15% protein 2. 2g fat 30g CHO, 70g protein Optifast-70	group	weekly	1. 5/21 (24%) 2. 7/28 (25%)	<u>Weight in kg</u> 1. (17) -14.43 (-9.6, -19.3) 2. (23) -17.33 (-13.1, -21.6) <u>2vs1</u> at 17 wks p<.005	<u>Weight in kg</u> 78 weeks 1. (16) -12.18 (-7.8, -16.6) 2. (21) -10.94 (-6.4, -15.5)	Predictors of weight change: Initial weight was correlated strongly with weight loss at week 26 (r=0.56, p<0.001), week 52 (r=0.54, p<0.001) and week 78 (r=0.49, p<0.002). Once controlled for initial weight and treatment, attendance during the first 26 weeks was correlated (r=0.30, p<0.05) with weight loss at the end of this period. Attendance of maintained session did relate to change in weight during this period.	
Wadden 438	Randomized: unclear Self-selected: yes Included: >25kg overweight Mean age: 37.9 Mean weight: 108.0 Female/Total: 18/18	1. Balanced deficit diet 2. VLCD	48 (17)	Exercise: yes 20-40 min, 3-5 x/week Behavioral: yes group, weekly	1. 1200 2. 420 x16 then 1200	1. 30% fat 15-20% protein 50-55% CHO 2. Optifast-70	group	weekly	1. 1/9 (11%) 2. 2/9 (22%)	<u>Weight in kg</u> 1. (9) 106.1 (94.6, 117.6) 2. (9) 109.9 (100.9, 118.9)	<u>Weight in kg</u> 1. (8) -18.2 (-26.5, -9.9) 2. (7) -21.6 (-28.7, -14.5) <u>2vs1</u> p<.005		
Rossner 70141	Randomized: unclear Self-selected: no Included: BMI >30 Mean age: 41	<u>Group description</u> 1. VLCD 420 kcal/d (Nutrilett) 2. VLCD 530 kcal/d	52	Exercise: yes encouraged Behavioral: yes self monitoring	1. 420 kcal 2. 530 kcal 3. 880/1600 kcal	not given	group	17 sessions	36/93	<u>Weight (kg)</u> 1. (21) 112.1 (105, 119) 2. (19) 112 (104, 119) 3. (17) 116.9 (107, 126)	<u>Weight loss</u> 1. (21) -14.8 (-20.4, -9.2) 2. (19) -15.4 (-20.2, -10.6)		Design: No description of behavioral group other than mentioned that followed same advice and behavior modification as Rytting Kr et al. (# 30587)

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
	Mean weight: 113.3 Female/Total: 30/93	3. LCD 880 kcal/d followed by 1600 kcal/d diet and booster at 26 weeks		17 sessions							3. (17) -12.1 (-17.2, -6.9)		
	Diabetes												
Wing 439	Randomized: unclear Self-selected: unclear Included: >130% or 18 kg above IBW Mean age: 51 Mean weight: ng Female/Total: 60/93	1. Low-calorie diet 2. VLCD followed by LCD	27 (12)	Exercise: no Behavioral: no	1. 1000 2. 400 x12 then 1000	1. 30% fat 15% protein 55% CHO 2. Optifast-70	group	weekly	Not reported	*Report data only on subjects who lost 11% of their initial weight <u>Weight in kg.</u> 1. (17) 99.4 (91.1, 107.7) 2. (36) 103.4 (97.7, 109.1) <u>2vs1</u> not stated	<u>Weight in kg.</u> 12 weeks 1. (17) -11 (-11.8, -10.2) 2. (36) -11 (-11.6, -10.4) <u>2vs1</u> 0 (-0.7, 0.7)		Eighty % in the VLCD group and 35% in the LCD group lost 11% of initial weight within 20 weeks.
Pan XR 80225	Randomized: unclear Self-selected: unclear Included: glucose intolerant, nonoverweight Mean age: 45 Mean weight: 25.8 kg/m ² Female/Total: 283/577	1. Control 2. Diet 3. Exercise 4. Diet and exercise	6 yrs	Exercise: yes daily (10-30 min) Behavioral: no	To lose 0.5-1.0 kg per month until BMI of 23 kg/m ²	1. 25-30% fat 2. 55-65% CHO 3. 10-15% protein	individual and groups	weekly x 4 monthly x 3 every 3 mos	47/577	<u>BMI</u> 1. (83) 28.5 (27.9, 29.1) 2. (75) 28.3 (27.8, 28.8) 3. (84) 27.9 (27.4, 28.4) 4. (80) 28.6 (27.9, 29.2)	<u>BMI</u> (overweight subgroup) 1. -1 (-1.63, -0.37) 2. -1.2 (-1.8, -0.6) 3. -0.9 (-1.44, -0.36) 4. -1.60 (-2.28, -0.92)		Eleven participants died in the course of the trial. No deaths occurred in the exercise only group. Three deaths occurred in the control group, three in the diet group and five in the combo group (one stroke, one accidental, two cancer, one Crohn's disease). None of these patients were known to have developed diabetes before death.
Wing 708	Randomized: unclear Self-selected: unclear included diabetes >130% IBW Mean age: 51 Mean weight: 103.3 Female/total: 26/36	1. Behavioral therapy 2. Behavioral therapy and VLCD	72 (52)	Exercise: yes 4200 J/w Behavioral: yes group, 4 times	1. 4200J/d 2. 1680 s/d	1. ng 2. Optifast -70	group	qwx20 then at 24,28 46 and 72	1. 3/19 (16%) 2. 0/17	<u>Weight kg</u> 1. (16) 104.5 (93, 116) 2. (17) 102.1 (96.1, 108.1)	<u>Weight kg</u> 1. (16) -10.1 2. (17) -18.6 <u>2vs1</u> -8.5 (-17.21, 0.21)	<u>Weight kg</u> 12 months 1. (16) -6.8 2. (17) -8.6 <u>2vs1</u> -1.80 (-10.24, 6.64)	
	Very low-calorie diet												
Wing 71807	Randomized: unclear Self-selected: yes Included: diabetes 30% above IBW or 18 kg	1. Behavior therapy with LCD 2. Behavior therapy with intermittent	52 (24)	Exercise: yes 2 miles/d, 5x/wk Behavioral: yes	1. 1,000-1,200 2. 500 kcal	Not given	group	Weekly	Not given	Not given	<u>Weight-black (1 year)</u> 1. (8) -6.6 kg 2. (8) -7.0 kg <u>Weight-white (1 year)</u>		

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
	above IBW Mean age: 51 Mean weight: 107 Female/Total: 51/75	VLCD		group, weekly							1. (30) -11 2. (29) -17		
Miura 719	Randomized: unclear Self-selected: unclear Included: refractory obese patients Mean age: 35 Mean weight: ng Female/Total: 46/70	1. Control (behavioral, no diet) 2. VLCD alone 3. Behavioral therapy + VLCD	16	Exercise: no Behavioral: yes LEARN program	2,3. Optifast-70 420 kcal	2,3. 70g protein, 30g CHO, 2g fat	unclear	unclear	Not reported	Not given	<u>Weight in kg</u> 1. (39) -4.5 2. (15) -8.6 3. (16) -10.7	<u>Weight in kg</u> 12 months 1. (ns) -1 (95%CI n/a, n/a) 2. (ns) 3.6 (95%CI n/a, n/a) 3. (ns) -0.8 (95%CI n/a, n/a) <u>Weight in kg</u> 2 yrs weeks 1. (ns) -1.3 (95%CI n/a, n/a) 2. (ns) 4.5 (95%CI n/a, n/a) 3. (ns) -1.3 (95%CI n/a, n/a) p-value not stated	Conclusion: Weight regain obscured in the combined therapy group at 24 months was less than that observed in the VLCD group.
Foster 715	Randomized: unclear Self-selected: yes Included: not given Mean age: 40.6 Mean weight: 102 Female/Total: 76/76	1. VLCD 800 kcal/d 2. VLCD 660 kcal/d 3. VLCD 420 kcal/d	12	Exercise: yes walking 2-3x w Behavioral: yes group weekly	1. 800 2. 660 3. 420	not given	group	weekly	Not reported	<u>Weight in kg</u> 1. (24) 102.6 (94.9, 110.2) 2. (23) 102.6 (94.5, 110.7) 3 (21) 101.7 (96.1, 107.3)	<u>Weight in kg</u> 1. (24) -16.6 (-18.0, -15.2) 2. (23) -18.5 (-20.6, -16.4) 3. (21) -18.2 (-20.9, -15.5) <u>2vs1</u> -2.70 (-5.71, 0.31) <u>3vs1</u> -1.60 (-3.64, 0.44) <u>3vs2</u> 0.30 (-2.03, 2.63)	<u>Weight in kg</u> 19 weeks 1. (24) -19.9 (-22.4, -17.4) 2. (23) -22.1 (-24.8, -19.4) 3. (21) -19.6 (-23.4, -15.8) <u>2vs1</u> -2.20 (-4.73, 0.33) <u>Weight in kg</u> 24 weeks 1. (24) -19.9 (-23.0, -16.8) 2. (23) -22.6 (-25.7, -19.5) 3. (21) -19.5 (-24.1, -14.9)	

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
Collins 676	Randomized: unclear Self-selected: yes Included: BMI 30-40 diabetes Mean age: ng Mean weight: ng Female/Total: ng/40	1. HMR 800 (2 supplements per day) 2. HMR 800 (5 supplements per day)	12	Exercise: no Behavioral: Yes group weekly	1. 800 2. 800	HMR 800	group	weekly	1/32 (3%) * 7 not included (\$ medication)	Weight in kg 0. (32) 103.7 (95%CI 98.2, 109.2) p-value not stated	Weight in kg 0. (32) -15.3 (87.6, 89.2)	Weight in kg 64 weeks 0. (30) 94.7 (95%CI 89.0, 100.4)	
Ryttig 688	Randomized: unclear Self-selected: yes Included: BMI >=30 Mean age: 41.5 Mean weight: 112.4 Female/Total: 49/60	1. VLCD x12 weeks followed by LCD maintenance 2. VLCD x12 weeks followed by LCD supplemented with VLCD sachets	52	Exercise: No Behavioral: Yes group, 17 sessions	1 and 2 330 kcal x12-w 2. had VLCD sachet as suppl. during maintenance	1 and 2 1 g fat 14 g CHO 11.3 g protein during VLCD	unclear	17 sessions	1. 7/29 (24%) 2. 8/31 (26%)	Weight in kg 1. (29) 120.1 (111.5, 128.7) 2. (31) 108.1 (102.3, 113.9)	Weight in kg 52 weeks 1. (22) 12.3 (8.0, 16.6) 2. (23) 8 (4.5, 11.5)	End of 12 weeks of VLCD Weight in Kg 1. (29) 97.6 (90.3, 104.9) 2. (31) 85.7 (80.3, 91.1) 1vs2 p=0.12	
Andersson 674	Randomized: unclear Self-selected: unclear Included: BMI 26-36 Mean age: ng Mean weight: 82.7 Female/Total: 20/20	1. Control (no intervention) 2. Semistarvation for 3 days	3d	Exercise: no Behavioral: no	Goal: 7% decrease BW 621 KJ/d followed by maintenance	2. maintenance: 25-30% fat	individual	monthly	1. 0/9 2. 1/11 (9%)	Weight in kg 1. (9) 81.8 (95%CI 76.0, 87.6) 2. (10) 83.5 (95%CI 74.5, 92.5)	Weight in kg 1. (9) -0.2 (95%CI 75.6, 87.6) 2. (10) -2.5 (95%CI 72.2, 89.5) 2vs1 -2.30 (-9.49, 4.89)	Weight in kg 4 mo 1. (9) 82 (95%CI 75.5, 88.5) 2. (9) 74.1 (95%CI 66.3, 81.9) Weight in kg 4 mo -9.60 (-231.34, 212.14)	
Low-Calorie Diet													
Frey-Hewitt 432	Randomized: unclear Self-selected: unclear Included: 120-160% IBW Mean age: ng Mean Weight: ng Female/Total: 0/121	1. Control (no diet, exercise) 2. Diet (no exercise) 3. Exercise (no diet)	52	Exercise: yes aerobic walk, jog 50 min x3 wk Activity at home: 2 times wk Behavioral: no	to lose 0.3-0.6 kg/wk	not stated	group	q2w	1. 3/52 (5%) 2. 2/21 (9%) 3. 1/52 (1%)	Weight in kg 1. (41) 94.99 (95% CI 91.6, 98.3) 2. (36) 93.63 (95% CI 90.5, 96.7) 3. (44) 94.14 (95% CI 91.5, 96.8)	Weight in kg 12 months 1. (41) 0.38 (95% CI -0.8, 1.5) 2. (36) -6.68 (95% CI -8.0, -5.3) 3. (44) -4.1(95% CI -5.2, -3.0) 2vs1 p<0.01 3vs2 p<0.01		

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
Karvetti 368	Randomized: unclear Self-selected: unclear Included: BMI >27 kg/m ² Mean age: 48.1 Mean Weight: 33.9 kg/m ² Female/Total: 147/189	1. Control (no diet) 2. Weight reduction program	52	Exercise: no Behavioral: no	1200	not given	group	qwx6, monthly x4, then q2months	1. 21/117 (18%) 2. 33/126 (26%)	<u>Weight in kg, men</u> 2. (17) 101 (95%CI n/a, n/a) <u>Weight in kg, women</u> 2. (62) 90.3 (95%CI n/a, n/a)	<u>Weight in kg, men</u> 2. (17) -10.9 (95%CI n/a, n/a) <u>Weight in kg, women</u> 2. (62) -5.4 (95%CI n/a, n/a) <u>2vs1 p<0.05 per author</u>	<u>Weight in kg, men 2 years</u> 2. (17) -12.1 (95%CI n/a, n/a) <u>Weight in kg, men 3.5 years</u> 2. (14) -11.7 (95%CI n/a, n/a) <u>Weight in kg, men 5 years</u> 2. (16) -11.2 (95%CI n/a, n/a) <u>Weight in kg, men 7 years</u> 2. (17) -8.7 (95%CI n/a, n/a) <u>Weight in kg, women 2 years</u> 2. (61) -5 (95%CI n/a, n/a) <u>Weight in kg, women 3.5 years</u> 2. (58) -3.4 (95%CI n/a, n/a) <u>Weight in kg, women 5 years</u> 2. (57) -2.9 (95%CI n/a, n/a) <u>Weight in kg, women 7 years</u> 2. (62) -3.5 (95%CI n/a, n/a) * significance of change	At 2 years of follow-up, only 21% of the subjects in the treatment group attended a weighing session. The weights of the remaining subjects were therefore obtained by mail or telephone. At 3.5, 5 and 7 years of follow-up, the subjects reported their weights by mail or telephone (no correction factor mentioned by authors). At 7 years, 53% of men and 21% of women still weighed over 10 kg less than baseline.

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
												given within groups not between groups	
Stevens 376	Randomized: unclear Self-selected: unclear Included: 115-165% IBW Mean age: 42.5 Mean weight: 89.7 Female/Total: 179/564	1. No intervention 2. Diet, behavioral and exercise	72 (24,52)	Exercise: yes 30-45 min/4-5 x w Behavioral: yes group, unclear	1. n/a 2. to lose 0.9 kg/2w	1. n/a 2. ng	group	qwx14, qmo	not given	not given	Weight in kg, women 2. (ns) -1.6 (95%CI n/a, n/a) Weight in kg, men 2. (ns) -4.7 (95%CI n/a, n/a)		At the end of 18 months, 45% men and 26% women in the intervention group had met their 4.5 kg loss goal compared to 12 and 18% in the placebo group. Weight loss at 18 months (control - intervention means) overall 3.9 ,b,0.4 for men 4.7,b,0.5 for women 1.8,b,0.8
Svendsen 384	Randomized: unclear Self-selected: unclear Included: BMI >25 Mean age: ng Mean weight: 77.8 Female/Total: 121/121	1. No intervention 2. Diet alone 3. Diet and exercise	12	Exercise: yes 90 min 3x wk Behavioral: no	1. n/a 2. 4.2 mJ/d 3. 4.2 mJ/d	NUPO 5g fat 30 g fiber 21g CHO 65 g protein	groups	q2w	not given	Weight in kg 1. (21) 76.6 (95%CI 72.6, 80.6) 2. (51) 78.1 (95%CI 75.9, 80.3) 3. (49) 78.1 (95%CI 75.1, 81.1)	Weight in kg 1. (20) 0.5 (95%CI -0.3, 1.3) 2. (50) -9.5 (95%CI -10.3, -8.7) 3. (48) -10.3 (95%CI -11.2, -9.4)	Weight in kg 9 months 1. (16) -0.5 no statistics available 2. (47) -7.5 no statistics available 3. (47) -9 no statistics available	Results: There was still a significant and similar weight loss of about 8 kg in the 2 intervention groups. The lean tissue mass was still decreased in the diet only but not in the diet plus exercise group as compared to control (p<0.05).
Wood 406	Randomized: Yes Self-selected: yes Included: 120-160% IBW Mean age: 44.5 Mean weight: 94.1 Female/Total: 0/155	1. No intervention 2. Diet 3. Exercise	52 (28)	Exercise: yes 40-0 min x5 Behavioral: no	1. n/a 2. lose 30% body fat over 9 mo 3. n/a	1.n/a 2. ng 3. n/a	group	unclear	1. 3/52 (6%) 2. 2/51 (4%) 3. 1/52 (2%)	Weight in kg 1. (42) 95.4 (95%CI 92.1, 98.7) 2. (42) 93 (95%CI 90.3, 95.7) 3. (47) 94.1 (95%CI 91.6, 96.6)	Weight in kg 1. (42) 0.6 (-0.6, 1.8) 2. (42) -7.2 (-8.4, -6.0) 3. (47) -4 (-5.1, -2.9) 2vs3 p. 0.01	Weight in kg 7 months 1. (42) 0.2 (95%CI -0.6, 1.0) 2. (42) -7.6 (95%CI -8.8, -6.4) 3. (47) -3 (95%CI -3.8, -2.2)	Although both interventions promoted effective weight loss, the average loss was significantly greater in the dieters than in the exercisers. Whereas non-fat body mass changed little in the exercise group, mean non-fat body mass decreased significantly in the diet group relative to both control and exercise groups. Correlations: Among exercisers, the distance run correlated significantly with changes in weight (rs=-0.48), fat body mass (rs=-0.41) and the % of body fat (rs=-0.41), HDL (rs=0.45) and HDL2 (rs=0.34). One

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
													year change in VO ₂ Max correlated significantly with total weight loss in the exercisers (rs=-0.68 and -0.41, respectively) and HDL (rs=0.43) and HDL2 (rs=0.46), but not in dieters (rs=-0.23, -0.05 for weight loss).
Fortmann 363	Randomized: unclear Self-selected: yes Included: 120-150% IBW Mean age: 44.3 Mean weight: 93.6 Female/Total: 0/115	1. Control (no intervention) 2. Low-calorie diet 3. Exercise only	52	Exercise: yes aerobic 60 min 3xw Behavioral: no	not stated	not stated	individual	one time only	Not reported	<u>Weight in kg</u> 1. (35) 95 (95% CI 91.2, 98.8) 2. (38) 92 (95% CI 89.4, 94.6) 3. (42) 94 (95% CI 91.5, 96.5)	<u>Weight in kg</u> 1. (35) 0.5 (95% CI -0.8, 1.8) 2. (38) -6.9 (95% CI -8.3, -5.5) 3. (42) -4.6 (95% CI -5.7, -3.5) <u>Weight in kg</u> <u>3vs2</u> 2.30 (1.07, 3.53) <u>3vs1</u> -5.10 (-6.27, -3.93) <u>2vs1</u> -7.40 (-8.73, -6.07)		
Golay 70167	Randomized: unclear Self-selected: no Included: BMI >30 kg/m ² History of failure to lose weight Mean age: 43 Mean weight: 104.5 Female/Total: 34/43	1. Low calorie diet with low carbohydrate 2. Low calorie diet with high carbohydrate	6	Exercise: yes aerobic 120 min daily Behavioral: yes behavioral modification weekly meeting	1000	1. 15% CHO 2. 45% CHO	individual and group	biweekly	none	<u>Weight (kg)</u> 1. (22) 107 (96.6, 117.3) 2. (21) 102 (93.6, 110.3)	<u>Weight (kg)</u> 1. (22) -8 (-18.05, 2.05) 2. (21) -7 (-14.93, 0.93) <u>2vs1</u> 1.0 (-7.8, 9.8)		
Puddey 370	Randomized: unclear Self-selected: yes Included: >120% IBW Mean age: 44.3 Mean weight: 92.5 Female/Total: none	1. Normal diet and normal alcohol intake 2. Hypocaloric diet and normal alcohol intake 3. Normal diet and reduced alcohol intake 4. Hypocaloric diet and reduced alcohol	18	Exercise: no Behavioral: no	1000-1500 kcal reduction	2,4. 15% protein, 30% fat, 55% CHO	individual	q2w	Overall 18/86 (20%)	<u>Weight in kg</u> 1. (20) 90.7 (95% CI 86.7, 94.7) 2. (22) 93.6 (95% CI 87.4, 99.7) 3. (21) 90.2 (95% CI 86.1, 94.4) 4. (23) 95.0 (95% CI 90.0, 100.1)	<u>Weight in kg</u> 2. (ns) -7 (95% CI n/a, n/a) 3. (ns) -1.7 (95% CI -0.4, -3.0) 4. (ns) -9.6 (95% CI -7.9, -11.3) p-value not reported		Baseline weight correlated with change in neither SBP nor DBP, but change in weight was strongly correlated with changes in both SBP and DBP (r=0.49, p<0.001 and r=0.49, p<0.001). In group 4 there was no change in HDL.

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
		intake									between groups		
Agras 71732	Randomized: unclear Self-selected: no Included: subjects who lost 5% or more of their initial weight after 12 weeks of VLCD Mean age: 43.7 Mean weight: 100.3 Female/Total: 201/201	1. Refeeding with standard food time dependent 2. Refeeding with standard food weight dependent 3. Refeeding with prepackaged food time dependent 4. Refeeding with prepackaged food weight dependent	36	Exercise: no Behavioral: yes behavioral modification	1200	not stated	not stated	not stated	17/201	<u>Weight (kg)</u> (after completion of VLCD) 1. (47) -15.2 (-16.6, -13.8) 2. (45) -15 (-16.4, -13.5) 3. (38) -14.9 (-16.3, -13.4) 4. (44) -14.2 (-15.4, -12.9)	<u>Weight (kg)</u> 1. (41) -16.8 (-20, -13.5) 2. (41) -16.3 (-19.7, -12.9) 3. (34) -15.8 (-19, -12.5) 4. (39) -14.8 (-17.7, -11.8)	<u>Weight (kg) 9 months</u> 1. (43) -14.5 (17.8, -11.1) 2. (35) -13.5 (-17.3, -9.7) 3. (32) -15 (-18.6, -11.3) 4. (39) -12.1 (-15.3, -8.9) <u>Weight (kg) 12 months</u> 1. (46) -11.7 (-14.9, -8.4) 2. (42) -9.3 (-12.9, -5.6) 3. (34) -10.2 (-14.1, -6.2) 4. (39) -8.3 (-11.8, -4.8) <u>Weight (kg) 18 months</u> 1. (41) -8 (-11.8, -4) 2. (41) -8 (-11, -4.5) 3. (34) -6 (-9.8, -2.2) 4. (40) -2 (-7.7, 3.7)	Run-in: VLCD (Optifast 800) 800-kcal 1d x 12 weeks
Hakala 716	Randomized: unclear Self-selected: yes Included: >54% overweight Mean age: 40 Mean weight: 109.3 Female/Total: 42/60	1. Health Center group 2. Rehabilitation Center	2 yrs	Exercise: yes while in Rehab. (15 hrs) Behavioral: no	1200	not stated	individual	monthly	1. 4/24 (16%) 2. 1/24 (4%) *during intensive periods	<u>Weight in kg</u> 1. (20) -3.1 (95%CI +2.1, -8.3) 2. (23) -7.5 (95%CI -3.4, -11.6)	<u>Weight in kg 6 months</u> 1. (20) -7.5 (95%CI -2.8, -12.2) 2. (23) -13.8 (95%CI -10.1, -17.5) <u>2vs1</u> -6.30 (-10.36, -2.24) <u>Weight in kg 12 months</u> 1. (20) -5.4 (95%CI -1.6, -9.2) 2. (23) -11.9 (95%CI -7.2, -16.6) <u>2vs1</u> -6.50 (-10.68, -2.32) <u>Weight in kg, women 5 year</u> 1. (19) 0.5 (95%CI -4.1,		

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
												5.1) 2. (20) 0.3 (95%CI -3.8, 4.4) <u>2vs1</u> 5y -0.20 (-4.40, 4.00) <u>Weight in kg, men</u> 5 yr 1. (8) 0.2 (95%CI -9.8, 10.2) 2. (7) -6.8 (95%CI -11.4, -2.2) <u>2vs1</u> -7.00 (-14.25, 0.25)	
Heller 413	Randomized: unclear Self-selected: no Included: BMI >27 kg/m ² diabetes Mean age: 56.4 Mean weight: 86.5 Female/Total: 39/75	1. Usual clinic care (control) 2. Group education	52	Exercise: no Behavioral: no	not given	not given	individual	1. not given 2. 3x/wk, at 3 and 6 months	1. 8/47 (17%) 2. 4/40 (10%)	<u>Weight in kg</u> 1. (39) 86.1 (79.13, 93.07) 2. (36) 86.9 (56.21, 117.59)	<u>Weight in kg</u> 1. (39) -3 (-2.76, -3.24) 2. (36) -5.5 (-5.61, -5.39) <u>2vs1</u> -2.50 (-2.69, -2.31)	<u>Weight in kg 6 months</u> 1. (39) -2 (-2.5, -3.1) 2. (36) -7 (-6.39, -7.61) <u>2vs1</u> -5.0 (-5.47, -4.53) <u>Weight in kg 3 mo</u> 1. (39) -3.5 (-3.24, -3.24) 2. (36) -6 (-5.49, -5.49) -2.5 (-2.89, -2.11)	
Jalkanen 400	Randomized: unclear Self-selected: no Included: BMI 27-34 hypertension Mean age: 49 Mean weight: 83 Female/Total: ng/50	1. Control (no diet, no advice) 2. Intervention program	52	Exercise: lecture Behavioral: yes group, qwx24, q3w	1000-1500 kcal	not stated	group	q1wx6 mo q3wx6 mo	overall 1/50 (2%)	<u>Weight in kg</u> 1. (25) 80 (95%CI 75.5, 84.5) 2. (24) 86 (95%CI 80.1, 91.9)	<u>Weight in kg</u> 1. (25) 0 (95%CI 75.5, 84.5) 2. (24) -4 (95%CI 76.5, 87.5) <u>2vs1</u> -4.00 (-9.32, 1.32)		

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments	
Diet in hypertensive subjects														
Singh 689	Randomized: yes Self-selected: yes Included: hypertension includes non-overweight Mean age: 47.0 Mean weight: 66.7 Female/Total: ng/217	1. Usual diet 2. Low-calorie, low-cholesterol, low-salt diet	12-16	Exercise: no Behavioral: no	1. 2100 kcal 2. 1600 kcal	not stated 2. 400 g of fruits and vegetables	unclear	weekly	none	<u>Weight in kg</u> 1. (109) 66.9 (95%CI 65.1, 68.7) 2. (108) 66.5 (95%CI 65.0, 68.0) <u>Weight in kg, in overwgt patients</u> 1. (83) 70 (67.1, 72.9) 2. (82) 70.5 (67.8, 73.2)	<u>Weight in kg</u> 1. (109) -0.8 (95%CI n/a, n/a) 2. (108) -3.6 (95%CI n/a, n/a) net change: 2.8 (1.5,4.1) <u>Weight in kg, in overwgt patients</u> 1. (83) -1.8 (n/a, n/a) 2. (82) -4.2 (n/a, n/a) net change: 2.4(0.44, 4.36)			
Jeffery 680	Randomized: unclear Self-selected: no Included: 10-50% desirable weight, high normal blood pressure Mean age: ng Mean weight: ng Female/Total: ng/94	1. Group treatment 2. Individual counselling	20	Exercise: no Behavioral: no	not stated	not stated	1. group 2. individual	q2w	1. 5/47 (10.6%) 2. 7/47 (14.9%)	<u>Weight in kg</u> 1. (42) 89.1 (95%CI 86.2, 92.0) 2. (40) 91.6 (95%CI 88.6, 94.6)	<u>Weight in kg</u> 1. (42) -6 (95%CI -7.0, -5.0) 2. (40) -5.7 (95%CI -6.6, -4.8) <u>2vs1</u> 0.30 (-0.64, 1.24)			
Croft 347	Randomized: unclear Self-selected: no Included: BMI > 25 hypertension Mean age: ng Mean weight: 85.7 Female/Total: 103/210	1. Hypertensive with no dietary intervention 2. Hypertensive with weight reduction diet 3. Normotensive with weight reduction intervention (not randomized)	24	Exercise: no Behavioral: no	not given	not given	individual	q8w	1. 3/64 (5%) 2. 17/66 (26%) 3. 47/80 (59%)	<u>Weight in kg</u> 1. (64) 82.2 2. (66) 86.7 3. (80) 88.3 <u>Weight in kg</u> 1. (compl, 50) 81.8 2. (compl, 47) 84.1	<u>Weight in kg</u> 1. (64) -0.2 2. (66) -6.5 3. (80) -3.2 <u>2vs1</u> p<0.001 <u>Weight in kg</u> 1. (compl, 50) +0.5 2. (compl, 47) -8.0 <u>2vs1</u> p<0.001			
MacMahon 356	Randomized: unclear Self-selected: no Included: BMI > 26 hypertension	1. Placebo (no diet) 2. Low-calorie diet 3. Metoprolol 100 mg bid. (no diet)	21	Exercise: no Behavioral: no	not stated	2. 15% protein, 30% fat, 55% CHO	unclear	q3w	1. 2/18 (11%) 2. 1/20 (5%) 3. 1/18 (5%)	<u>Weight in kg</u> 1. (18) 96.4 (95%CI n/a, n/a) 2. (20) 95.5 (95%CI n/a,	<u>Weight in kg</u> 1. (18) +0.5 (95%CI n/a, n/a) 2. (20) -7.4 (95%CI n/a,		Results In the weight reduction group, the changes in SBP and DBP were closely correlated with the change in weight (SBP	

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
	Mean age: 42 Mean weight: 97.1 Female/Total: 14/56									n/a 3. (18) 99.7 (95%CI n/a, n/a)	n/a 3. (18) 2.0 (95%CI n/a, n/a) <u>2v1</u> p<0.05 <u>3v1</u> not sig.		r = 0.73, DBP r = 0.68). At the end of follow-up, 50% of subjects in the weight reduction group, 39% in metoprolol and 17% in placebo had DBP <90. 15% of the weight rduction group did not complate the trail and 30% in total, were unable to adhere to the weight reduction program.
Anderssen 346	Randomized: unclear Self-selected: not Included: BMI >24 kg/m ² Mean age: 44.9 Mean weight: 28.8 kg/m ² Female/Total: 21/212	1. Control (no diet or exercise) 2. Diet alone 3. Exercise alone 4. Diet and exercise	52	Exercise: yes aerobic, 60-80% HR Behavioral: no	to lose 0.5-1.0 kg/month salt restriction for hypertensive patients	not given	unclear	at 3 and 9 months	1. 0/43 2. 3/55 3. 5/54 4. 2/67	<u>BMI</u> 1a. (12) 30 (27.14, 32.86) 2a. (16) 29.9 (28.41, 31.39) 3a. (20) 29.5 (27.83, 31.17) 4a. (24) 29.6 (27.74, 31.46) <u>BMI</u> 1b. (16) 27.9 (26.62, 29.18) 2b. (17) 30.9 (28.36, 33.44) 3b. (16) 28.4 (26.91, 29.89) 4b. (20) 27.9 (26.64, 29.16) <u>BMI</u> 1c. (15) 27.4 (26.33, 28.47) 2c. (19) 28 (26.53, 29.47) 3c. (13) 27.4 (25.87, 28.93) 4c. (21) 28 (26.75, 29.25) Groups were divided for results presentation into tertiles for blood pressure Group a: with DBP >91 Group b: with DBP 84-9	<u>BMI</u> 1a. (12) 0.2 (-0.46, 0.86) 2a. (16) -1.7 (-2.55, -0.85) 3a. (20) -0.4 (-1.03, 0.23) 4a. (24) -2.2 (-2.61, -1.79) <u>BMI</u> 1b. (16) 0.4 (-0.03, 0.83) 2b. (17) -1.4 (-2.46, -0.34) 3b. (16) 0 (0.64, 0.64) 4b. (20) -2 (-2.84, -1.16) <u>BMI</u> 1c. (15) 0.4 (0.19, 0.61) 2c. (19) -0.7 (-1.12, -0.28) 3c. (13) -0.5 (-1.37, 0.37) 4c. (21) -1.2 (-2.03, -0.37)		

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
										mmHg Group c: with DBP <84			
Andersson 675	Randomized: unclear Self-selected: unclear Included: hypertension Mean age: 51 Mean weight: 97.1 Female/Total: 0/30	1. Energy restricted only 2. Energy restricted and salt restricted	12	Exercise: no Behavioral: no	1. mean 1231 kcal/d 2. mean 1222 kcal/d	not stated	unclear	unclear	not given	<u>Weight in kg</u> 1. (13) 96.6 (95%CI 90.9, 102.3) 2. (10) 97.9 (95%CI 91.5, 104.3)	<u>Weight in kg</u> 1. (13) -9.2 (95%CI 81.8, 93.0) 2. (10) -8.8 (95%CI 82.6, 95.6) <u>2vs1</u> 0.40 (-5.39, 6.19)		
Haynes 351	Randomized: yes Self-selected: no Included: >110% IBW hypertension Mean age: 91.8 Mean weight: ng/60 Female/Total: ng	1. Control (no diet) 2. Low-calorie diet	16	Exercise: no Behavioral: yes group weekly	not stated	not given	group	weekly	1. 4/30 (13%) 2. 2/30 (6%)	<u>Weight in kg</u> 1. (30) 94.9 2. (30) 88.8		<u>Weight in kg</u> 6 months 1. (24) -0.8 (95%CI n/a, n/a) 2. (27) -4.1 (95%CI n/a, n/a) p=0.018 *measurement done by surprise home visit	
Stamler 374	Randomized: yes Self-selected: yes Included: % desirable weight: >110 to 149% IBW but <150% IBW if DBP 80-84 Mean age: 37.5 Mean weight: 84.2 Female/Total: 27/201	1. Control (no intervention) 2. Low-salt, low-fat diet with moderate exercise	5 years	Exercise: yes isotonic Minutes/time per wk 30 min x3 Behavioral: no	1. n/a 2. provided <1800 mg Na,<26 g ETOH lose 4.5 kg or 5% of weight	not stated	individual	2/w at beginning, q3mo	small for both groups with 87% participating for 4 years or more	<u>Weight in kg</u> 1. (98) 85.7 (83.5, 87.9) 2. (95) 85 (82.7, 87.3)	<u>Weight in kg</u> 5 years 1. (98) 86.5 (84.2, 88.8) 2. (95) 83 (80.7, 85.3) *Weight: weight data are reported for patients with relative weight greater than 1.0 The largest group weight change was in the first year, -4.1 kg.		
Fagerberg 349	Randomized: unclear Self-selected: unclear Included: >20-40% desirable weight, hypertension Mean age: 51	1. Normal energy and sodium intake for 4 weeks then crossed over to a restricted diet and restricted sodium intake for 9 months	1. 9 mo 2. 12 w	Exercise: no Behavioral: no	1. 1220 kcal 2. 1230	not stated	unclear	2-3w	none	<u>Weight in kg</u> 1. (15) 97.6 (95%CI 92.7, 102.5) 2. (15) 97.3 (95%CI 91.9, 102.7)	<u>Weight in kg</u> 1. (15) -8.3 (95%CI 84.2, 94.4) 2. (15) -8.7 (95%CI 83.5, 93.7)		The correlation between intra-arterial and auscultatory recording was high.

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
	Mean weight: 97.4 Female/Total: 0/30	2. Energy-restricted diet with unchanged sodium intake for 12 weeks									End of control period for group 1 <u>Weight in kg</u> 1. (15) 97.5 (95%CI 91.9, 103.1) <u>2vs1</u> -0.40 (-5.53, 4.73)		
Langford 355	Randomized: yes Self-selected: unclear Included: 110-160% IBW, hypertension Mean age: 48 Mean weight: 136 Female/Total: 398/878	1. Usual diet plus placebo 2. Usual diet plus chlorthalidone 25 mg 3. Usual diet plus atenolol 50 mg 4. Weight loss diet plus placebo 5. Weight loss diet plus chlorthalidone 25 mg 6. Weight loss diet plus atenolol 50 mg 7. Low Na/high K diet plus placebo 8. Low Na/high K diet plus chlorthalidone 25 mg 9. Low Na/High K diet plus atenolol 50 mg	24	Exercise: no Behavioral: no	4,5,6 to lose 10% BW	not given	group/ individual	qwx10, q3mo	not given	<u>Weight in kg</u> 1. (89) 86 (95%CI 83.1, 88.9) 2. (87) 89.6 (95%CI 88.7, 90.5) 3. (86) 88.5 (95%CI 85.6, 91.4) 4. (88) 89.7 (95%CI 70.7, 108.7) 5. (85) 86.6 (95%CI 83.7, 89.5) 6. (88) 86 (95%CI 83.1, 88.9) 7. (79) 87.4 (95%CI 86.6, 88.2) 8. (88) 86.1 (95%CI 83.4, 88.8) 9. (90) 90.2 (95%CI 87.2, 93.2)	<u>Weight kg</u> <u>4vs1</u> -3.80 (-4.84, -2.76) <u>4vs2</u> -2.90 (-3.97, -1.83) <u>4vs3</u> -4.90 (-5.91, -3.89) <u>4vs7</u> 0.40 (-5.32, -2.68) <u>Weight in kg</u> 1. (89) -0.6 (95%CI -1.3, 0.1) 2. (87) -1.5 (95%CI -2.3, -0.7) 3. (86) 0.5 (95%CI -0.1, 1.1) 4. (88) -4.4 (95%CI -5.7, -3.1) 5. (85) -6.8 (95%CI -7.8, -5.8) 6. (88) -3 (95%CI -3.8, -2.2) 7. (79) -0.4 (95%CI -1.5, 0.7) 8. (88) -1 (95%CI -1.9, -0.1) 9. (90) 0.5 (95%CI -0.1, 1.1)	At mean of 4.5 years TAIM Phase II <u>Weight in kg</u> 1. (64) 1.7 (95%CI n/a, n/a) 2. (28) 1.7 (95%CI n/a, n/a) 3. (32) 0 (95%CI n/a, n/a) 4. (57) -1.7 (95%CI n/a, n/a) 5. (25) -1.7 (95%CI n/a, n/a) 6. (38) 1.5 (95%CI n/a, n/a) *Graphical only, 5 years data compared to baseline Relative risk of treatment failure: Weight loss/usual 0.75 (0.58, -0.98) Chlorthalidone/other 0.25 (0.18, 0.36) Atenolol/other 0.38 (0.28, 0.52) White/black 0.60 (0.45, 0.79) Male/female 0.98 (0.72, 1.34) prior use of	The weight loss diet lowered blood pressure more than the low sodium/high potassium diet (p=0.019).

Reference numbers refer to the Reference List in the Clinical Guidelines Report.

Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
												antihypertensive/none 1.38 (1.03, 1.84)	
Berglund 431	Randomized: no Self-selected: unclear Included: BMI ≥26 hypertension Mean age: 54 Mean weight: 99 Female/Total: 0/64	1. Low-salt, weight loss diet 2. Atenolol	52 (12) (24)		Goal: decrease wt by 5%	<30% fat 50% CHO 20% protein	group	3,6,12 mo	overall 3/64 (5%)	Weight in kg 1. (31) 96.9 (95% CI 93.0, 100.8) 2. (30) 102.9 (95% CI 97.5, 106.3)	Weight in kg 12 months 1. (31) -7.8 2. (30) 1.0 2vs1 8.8 (4.36, 13.24)	Weight in kg 3 months 1. (31) 90 (95% CI 86.1, 93.9) 2. (30) 101.8 (95% CI 98.2, 107.4)	Correlations between changes after 1 year in sum of plasma [insulion] waist/hip 0.24 BMI 0.36 waist 0.52 (p<0.0058) Covariance analysis of changes in LV mass according to previous antihypertensive therapy. LV mass -21.7,a,9.18 (p=.022) showed that the previously untreated patients showed a 20 g higher mean decrease in left ventricular mass in comparison with those on antihypertensive medication before entry. This difference in response may be explained by the finding that at entry previously treated patients seemed to have a lower mean left ventricular mass than those not treated.
Oberman 433	Randomized: unclear Self-selected: yes Included: >110-160% IBW Hypertension Mean age: 48.6 Mean weight: 88.0 Female/Total: 310/692	1. Usual diet plus placebo 2. Usual diet plus chlorthalidone 25 mg 3. Usual diet plus atenolol 50 mg 4. Weight loss diet plus placebo 5. Weight loss diet plus chlorthalidone 25 mg 6. Weight loss diet plus atenolol 7. Low-sodium/high-potassium diet plus placebo	24	Exercise: no Behavioral: no	4,5,6 to lose 4.5 kg or 10% BW	not stated	group	weekly	Overall: 91 (13%)	Weight in kg 0. (692) 88.0	Weight in kg 0. (692) -1.99 (95%CI n/a, n/a) 1. (79) -0.83 (95%CI n/a, n/a) 2. (75) -1.77 (95%CI n/a, n/a) 3. (75) 0.42 (95%CI n/a, n/a) 4. (84) -4.35 (95%CI n/a, n/a) 5. (75) -6.95 (95%CI n/a, n/a) 6. (76) -3.26 (95%CI n/a, n/a)		Among the total diet (all drugs) and drug groups (all diets) those persons on weight loss or atenolol showed the lowest relative risk at 6 months (0.89 and 0.88, respectively) in contrast to those on placebo or usual diet who had an estimated RR of 0.98. The response to weight loss was also different for blacks who had the lowest value for RR (0.81) for weight loss plus chlorthalidone rather than with weight loss plus atenolol as found in whites. The weight loss (all drugs) group was essentially equivalent to the atenolol (all diet) groups in lowering overall

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Question 13A: What is the evidence that dietary interventions in obese adults effect a change in weight?

Reference	Design/Demographics	Group description	Length weeks	Adjuvant therapy	kcal/d	% fat % CHO % protein	Format	Frequency	Drop-out Total	Weight baseline (n) mean (95%CI)	Mean weight change (n) mean (95%CI)	Follow-up (n) mean (95%CI)	Comments
		8. Low-salt/high-potassium diet plus chlorthalidone 25 mg 9. Low-salt/high-potassium diet plus atenolol 50 mg									7. (69) -0.34 (95%CI n/a, n/a) 8. (78) -0.98 (95%CI n/a, n/a) 9. (81) 0.27 (95%CI n/a, n/a)		cardiovascular risk; the sodium-potassium (all drugs) group also lowered overall risk in whites but not in blacks. Weight reduction ameliorated the cholesterol-raising effects of chlorthalidone, so that active drugs combined with weight loss had the greatest effect on reducing relative cardiovascular risk after 6 months of therapy.
Darne 677	Randomized: unclear Self-selected: unclear Included: >110% IBW hypertension Mean age: 48 Mean weight: 86 Female/Total: 22/54	1. Hypocaloric diet with or without antihypertensive drug therapy 2. No diet, antihypertensive therapy	40	Exercise: no Behavioral: no	energy intake reduced by 1/3	2. 50% CHO, <35% lipids	individual	q2mo	1. 5/26 (19%) 2. 1/28 (3%)	<u>Weight in kg</u> 1. (28) 86.9 (95%CI 81.5, 92.3) 2. (26) 85 (95%CI 80.2, 89.8)	<u>Weight in kg</u> 1. (27) -2.4 (95%CI 78.8, 90.2) 2. (21) -5.1(95%CI 75.0, 84.8) <u>1vs2</u> p<.01		
TOHP Phase II 70028	Randomized: yes Self-selected: unclear Included: BMI 26.1-37.4 for men and 24.4-37.4 for women High normal blood pressure Mean age: 43.6 Mean weight: 94 Female/Total: 804/1578	1. Usual Care 2. Weight loss 3. Sodium reduction 4. Weight loss and sodium reduction	3 yrs	Exercise: yes encouraged Behavioral: no	Goal to lose at least 4.5 kg	Not given	Individual	Not given	1. 82/596 2. 68/595 3. 79/594 4. 60/597	<u>Weight in kg</u> 1. (596) 93.6 (92.5, 94.7) 2. (595) 93.4 (92.3, 94.5) 3. (594) 94 (92.8, 95.1) 4. (597) 93.6 (92.4, 94.7)	<u>Weight in kg</u> 1. (554) 1.8 (1.4, 2.2) 2. (547) -0.2 (-0.7, 0.3) 3. (549) 1.7 (1.3, 2.1) 4. (552) -0.3 (-0.8, 0.2) <u>2vs1</u> -2.0 (-2.45, -1.55)		

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