

Question 12F. What is the evidence that combined interventions (diet and exercise) in obese adults effect a change in abdominal fat?

Reference	Design/Demographics	Overweight defined as:	Adjuvant therapy	Intervention	Drop-out total	Mean weight change (n) mean weight change (95%CI)	WHR Waist circumference Skinfolds Baseline (n) mean (95%CI)	WHR Waist circumference Skinfolds Change (n) mean (95%CI)	Comments/side effects
Kanaley 681	Randomization: unclear Self-selected: unclear Included: BMI >29 Mean age: n/a Mean weight: 88.3 Female/Total: 24/24	BMI >29	Diet: 2.1 Mj less than BMR Exercise: 1. encouraged 2. 30 min x3/wk at max HR 60-80% Behavioral: no	1. Diet with informal exercise 2. Diet with formal exercise	overall 5/24 (21%)	<u>Weight in kg, lower obesity</u> 1,2. (9) -7.7 <u>Weight in kg, upper obesity</u> 1,2. (10) -9.2	<u>WHR, lower body obesity</u> 1,2. (9) 0.74 (0.7, 0.8) <u>Lean body mass, lower body obesity (kg)</u> 1,2. (9) 43.9 (39.5, 48.3) <u>Body fat, lower body obesity (kg)</u> 1,2. (9) 40.4 (36.5, 44.3) <u>Body fat, lower body obesity (kg)</u> 1,2. (9) 47 (44.7, 49.3) <u>WHR, upper body obesity (kg)</u> 1,2. (10) 0.89 (0.8, 0.9) <u>Lean body mass, upper body obesity (kg)</u> 1,2. (10) 43.4 (41.4, 45.4) <u>Body fat, upper body obesity (kg)</u> 1,2. (10) 42.2 (38.6, 45.8) <u>Body fat, upper body obesity (%)</u> 1,2. (10) 47 (44.7, 49.3)	<u>WHR, lower body obesity</u> 1,2. (9) 0.77 (0.7, 0.8) <u>Lean body mass, lower body obesity (kg)</u> 1,2. (9) 44.3 no statistics available <u>Body fat, lower body obesity (kg)</u> 1,2. (9) 33.9 no statistics available <u>Body fat, lower body obesity (%)</u> 1,2. (9) 43 (38.4, 47.6) <u>WHR, upper body obesity</u> 1,2. (10) 0.86 (0.8, 0.9) <u>Lean body mass, upper body obesity (kg)</u> 1,2. (10) 43.9 (40.2, 47.6) <u>Body fat, upper body obesity (kg)</u> 1,2. (10) 34.8 (31.7, 37.9) <u>Body fat, upper body obesity (%)</u> 1,2. (10) 43 (43.0, 43.0)	
Blonk 470	Randomization: unclear Self-selected: no Included: BMI >27 Diabetes Mean age: ng Mean weight: ng Female/Total: ng/53	BMI >27	Diet: Yes 500 kcal less than usual intake Exercise: yes 60 min daily Max HR 60-80% Behavioral: yes	1. Conventional diet program (diet counseling alone) 2. Comprehensive diet, behavioral and exercise program	1. 4/26 (15%) 2. 3/27 (11%)	*Median difference between groups (comprehensive vs. conventional) <u>Weight in kg</u> 2vs1 -1.3 (-3.3, 0.7)		Results are reported as median changes for the comprehensive group compared to the conventional program. <u>WHR</u> 2vs1 -0.002 (-0.018, 0.016)	

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			q4mo						
Wood 380	Randomization: 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	BMI >24	Diet: NCEP I Exercise: yes 45 min 3x/wk Max HR: 60-80% Behavioral: no	1. No intervention 2. Diet alone 3. Diet and exercise	overall 27/264 (10%)	<u>Weight in kg, men</u> 1. (40) 1.7 (0.2, 3.2) 2. (40) -5.1 (-7.0, -3.2) 3. (39) -8.7 (-10.5, -6.9) <u>2vs1 Weight kg, men</u> -6.80 (-8.48, -5.12) <u>3vs1 Weight kg, men</u> -10.40 (-12.03, -8.77) <u>3vs2 Weight kg, men</u> -3.6 (-5.4, -1.8) <u>Weight in kg, women</u> 1. (39) 1.3 (-0.4, 3.0) 2. (31) -4.1 (-6.1, -2.1) 3. (42) -5.1 (-6.8, -3.4) <u>2vs1 Weight women</u> -5.40 (-7.20, -3.60) <u>3vs1 Weight kg, women</u> -6.80 (-29.61, 16.01) <u>3vs2 Weight kg, women</u> -1.00 (-25.27, 23.27)	<u>WHR, men</u> 1. (40) 0 (0.0, 0.0) 2. (40) -0.02 (0.0, 0.0) 3. (39) -0.04 (0.0, 0.0) <u>WHR 2vs1 men</u> -0.02 (-0.02, -0.02) <u>WHR 3vs1</u> -0.04 (-0.04, -0.04) <u>WHR 3vs2 men</u> -0.02 (-0.02, -0.02) <u>WHR, women</u> 1. (39) 0 (0.0, 0.0) 2. (31) -0.01 (0.0, 0.0) 3. (42) -0.03 (0.0, 0.0) <u>WHR women 2vs1</u> -0.01 (-0.01, -0.01) <u>WHR women 3vs1</u> -0.03 (-0.03, -0.03) <u>WHR 3vs2</u> -0.02 (-0.02, -0.02)		
Svensden 384	Randomization: unclear Self-selected: unclear Included: BMI >25 Mean age: ng Mean weight: 77.8 Female/Total: 121/121	BMI >25	Diet: 4.2 Mj/d Exercise: yes 90 min x3 Max HR: ng Behavioral: no	1. Control (no diet, exercise) 2. Diet alone 3. Diet + exercise	none	<u>Weight in kg</u> 1. (20) 0.5 (-0.3, 1.3) 2. (50) -9.5 (-10.3, -8.7) 3. (48) -10.3 (-11.2, -9.4) <u>3vs2 Weight kg</u> -0.80 (-1.64, 0.04) <u>2vs1 Weight kg</u> -10.00 (-10.79, -9.21) <u>3vs1 Weight kg</u> -10.80 (-11.66, -9.94)	<u>WHR</u> 1. (21) 0.84 (0.8, 0.9) 2. (51) 0.84 (0.8, 0.9) 3. (49) 0.83 (0.8, 0.9) <u>Skinfolds subscapular, mm</u> 1. (21) 28 (24.8, 31.2) 2. (51) 29 (27.0, 30.9) 3. (49) 29 (26.9, 31.0)	<u>WHR</u> 1. (20) 0.01 (0.0, 0.0) 2. (50) -0.03 (0.0, 0.0) 3. (48) -0.03 (0.0, 0.0) <u>WHR 3vs2</u> 0.00 (0.00, 0.00) <u>WHR 2vs1</u> -0.04 (-0.04, -0.04) <u>WHR 3vs1</u> -0.04 (-0.04, -0.04) <u>Skinfolds subscapular, mm</u> 1. (20) 1 (-1.8, 3.8) 2. (50) -6 (-7.1, -4.9) 3. (48) -9 (-10.5, -7.5) <u>WHR 9 mo</u> 1. (16) 0.02 (0.0, 0.0) 2. (47) -0.03 (0.0, 0.0) 3. (47) -0.04 (0.0, 0.0)	There was no significant difference in changes in parameters between the 2 intervention groups at follow-up. However, 47% of the women in the diet plus exercise group had stopped exercising at the follow-up.

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								<u>WHR 3vs2</u> -0.01 (-0.01, -0.01) <u>WHR 2vs1</u> -0.05 (-0.05, -0.05) <u>WHR 3vs1</u> -0.06 (-0.06, -0.06)	
Sweeney 472	Randomization: unclear Self-selected: yes Included: 135-185% IBW premenopausal women Mean age: 34 Mean weight: 96 Female/Total: 37/37	135-185% IBW	Diet: yes 1,2,3. 70% EER 4,5,6. 40% EER Exercise: 1,2.: none 2,5.: aerobic 200 min 3x/wk 3,6.: isotonic ng min 3x/wk Max HR: 70-85% Behavioral: no	1. Moderate energy restriction, sedentary 2. Moderate energy restriction, aerobic exercise 3. Moderate energy restriction, circuit weight training 4. Severe energy restriction, sedentary 5. Severe energy restriction, aerobic exercise 6. Severe energy restriction, circuit weight training	not reported	<u>Weight in kg</u> 1,2,3. (14) -10.8 4,5,6. (16) -15.1	<u>WHR</u> 2,5. (ns) 0.84 3,6. (ns) 0.81 1,4. (ns) 0.8	<u>WHR 6 months</u> 1,4. (30) 0.79 2,5. (30) 0.8 3,6. (30) 0.8	

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