

ORIGINAL RESEARCH COMMUNICATION

Long-term weight losses associated with prescription of higher physical activity goals. Are higher levels of physical activity protective against weight regain?^{1, 2, 3}

Deborah F Tate, Robert W Jeffery, Nancy E Sherwood and Rena R Wing

¹ From the Departments of Health Behavior—Health Education and Nutrition, School of Public Health, University of North Carolina, Chapel Hill, NC (DFT); the Division of Epidemiology, School of Public Health, University of Minnesota, Minneapolis, MN (RWJ); the Health Partners Research Foundation, Minneapolis, MN (NES); and the Weight Control and Diabetes Research Center, Miriam Hospital, Brown University Medical School, Providence, RI (RRW)

Background: High levels of exercise may be necessary for long-term maintenance of weight loss.

Objective: We aimed to determine in a randomized prospective design whether encouraging 2500 kcal physical activity/wk produced greater 30-mo weight losses than did the standard 1000 kcal physical activity/wk prescription.

Design: Overweight adults ($n = 202$) were randomly assigned to either 18 mo of standard behavioral treatment (SBT) with an exercise goal of 1000 kcal/wk or a high physical activity (HPA) treatment with a goal of 2500 kcal/wk. The HPA treatment included all procedures in the SBT plus encouragement to recruit 1–3 exercise partners and small-group counseling with an exercise coach. Participants were followed for 30 mo.

Results: The HPA group achieved significantly greater exercise levels and weight losses than did the SBT group at 12 and 18 mo ($P < 0.01$). Weight losses did not differ significantly at 30 mo: 0.90 ± 8.9 and 2.86 ± 8.6 kg for the SBT and HPA groups, respectively ($P = 0.16$). At 30 mo, average exercise levels no longer differed significantly between groups (1390 and 1696 kcal/wk, respectively; $P > 0.10$). Participants sustaining high exercise levels (>2500 kcal/wk) for 30 mo had significantly ($P < 0.001$) greater 30-mo weight loss than did those exercising less (12 ± 8.8 and 0.8 ± 8.1 kg, respectively).

Conclusions: Although participants in the HPA group sustained the 2500-kcal activity goal during the 18-mo treatment, activity declined once treatment ended, which resulted in no between-group differences in activity or weight loss at 2.5 y. Participants who reported continuing to engage in high levels of exercise maintained a significantly larger weight loss.

Key Words: Adults • long-term weight loss • weight maintenance • physical activity • clinical trial • obesity

This article has been cited by other articles:

This Article

- ▶ [Full Text](#)
- ▶ [Full Text \(PDF\)](#)
- ▶ [Purchase Article](#)
- ▶ [View Shopping Cart](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me if a correction is posted](#)
- ▶ [Citation Map](#)

Services

- ▶ [Similar articles in this journal](#)
- ▶ [Similar articles in PubMed](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Download to citation manager](#)
- ▶ [Get Permissions](#)

Citing Articles

- ▶ [Citing Articles via HighWire](#)
- ▶ [Citing Articles via Google Scholar](#)

Google Scholar

- ▶ [Articles by Tate, D. F.](#)
- ▶ [Articles by Wing, R. R.](#)
- ▶ [Search for Related Content](#)

PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by Tate, D. F.](#)
- ▶ [Articles by Wing, R. R.](#)

Agricola

- ▶ [Articles by Tate, D. F.](#)
- ▶ [Articles by Wing, R. R.](#)



A. L. Mark

Dietary Therapy for Obesity: An Emperor With No Clothes
Hypertension, June 1, 2008; 51(6): 1426 - 1434.

[\[Full Text\]](#) [\[PDF\]](#)



C. Villaverde, J. J. Ramsey, A. S. Green, D. K. Asami, S. Yoo, and A. J. Fascetti

Energy Restriction Results in a Mass-Adjusted Decrease in Energy
Expenditure in Cats That Is Maintained after Weight Regain
J. Nutr., May 1, 2008; 138(5): 856 - 860.

[\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)