

A randomized trial of the effects of reducing television viewing and computer use on body mass index in young children.

[Epstein LH](#), [Roemmich JN](#), [Robinson JL](#), [Paluch RA](#), [Winiewicz DD](#), [Fuerch JH](#), [Robinson TN](#).

Behavioral Medicine Laboratory, Department of Pediatrics, School of Medicine and Biomedical Sciences, State University of New York at Buffalo, Farber Hall, 3435 Main St, Room G56, Bldg 26, Buffalo, NY 14214-3000, USA.
LHENET@acsu.buffalo.edu

OBJECTIVE: To assess the effects of reducing television viewing and computer use on children's body mass index (BMI) as a risk factor for the development of overweight in young children. **DESIGN:** Randomized controlled clinical trial. **SETTING:** University children's hospital. **PARTICIPANTS:** Seventy children aged 4 to 7 years whose BMI was at or above the 75th BMI percentile for age and sex. **INTERVENTIONS:** Children were randomized to an intervention to reduce their television viewing and computer use by 50% vs a monitoring control group that did not reduce television viewing or computer use. **MAIN OUTCOME MEASURES:** Age- and sex-standardized BMI (zBMI), television viewing, energy intake, and physical activity were monitored every 6 months during 2 years. **RESULTS:** Children randomized to the intervention group showed greater reductions in targeted sedentary behavior ($P < .001$), zBMI ($P < .05$), and energy intake ($P < .05$) compared with the monitoring control group. Socioeconomic status moderated zBMI change ($P = .01$), with the experimental intervention working better among families of low socioeconomic status. Changes in targeted sedentary behavior mediated changes in zBMI ($P < .05$). The change in television viewing was related to the change in energy intake ($P < .001$) but not to the change in physical activity ($P = .37$). **CONCLUSIONS:** Reducing television viewing and computer use may have an important role in preventing obesity and in lowering BMI in young children, and these changes may be related more to changes in energy intake than to changes in physical activity.

PMID: 18316661 [PubMed - in process]