

## Empirical evaluation of the ability to learn a calorie counting system and estimate portion size and food intake.

Martin CK<sup>1</sup>, Anton SD, York-Crowe E, Heilbronn LK, VanSkiver C, Redman LM, Greenway FL, Ravussin E, Williamson DA; Pennington CALERIE Team.

### Author information

### Abstract

The aim of this study was to determine if: (1) participants could learn the HMR Calorie System by testing if their use of the system was more accurate after training; and (2) estimated portion size and food intake improved with training. A secondary aim was to use PACE (photographic assessment of calorie estimation) to assess if participants learned the HMR system. The PACE consists of pictures of foods, the energy content of which is known. A within-subjects design was used to test the aims of this study. Participants were 44 overweight (25 <or= BMI < 30) adults who were randomly assigned to one of three calorie restriction groups or a weight maintenance group for 6 months. Participants attended weekly sessions and were trained to use the HMR system from weeks 5 to 8. Participants were provided with foods to test if they could effectively use the HMR system and accurately estimate portion size and the amount of food eaten. The PACE was also used to quantify accuracy at using the HMR system. Training resulted in more accurate estimation of food intake, use of the HMR system and estimated portion size when presented with food. Additionally, training resulted in significantly more accurate use of the HMR system when measured with PACE. It is concluded that people can learn the HMR Calorie System and improve the accuracy of portion size and food intake estimates. The PACE is a useful assessment tool to test if participants learn a calorie counting system.

PMID: 17397559 DOI: [10.1017/S0007114507708802](https://doi.org/10.1017/S0007114507708802)

[Indexed for MEDLINE]

Publication types, MeSH terms, Grant support

LinkOut - more resources