Young Achiever Award 2012

Rose Oldham-Cooper, University of Bristol

Playing a computer game during lunch affects fullness, memory for lunch, and later snack intake.

Background:
The presence of distracting stimuli during eating increases the meal size and could thereby contribute to overeating and obesity. However, the effects of within-meal distraction on later food intake are less clear.
Objective:
Too test the hypothesis that distraction inhibits memory encoding for a meal, which, in turn, increases later food intake.
Design:
The current study assessed the effects of playing solitaire (a computerized card-sorting game) during a fixed lunch, which was eaten at a fixed rate, on memory for lunch and food intake in a taste test 30 min later. A between-subjects design was used with 44 participants. Participants in the no-distraction group ate the same lunch in the absence of any distracting stimuli.
Results:
Distracted individuals were less full after lunch, and they ate significantly more biscuits in the taste test than did nondistracted participants (mean intake: 52.1 compared with 27.1 g; P = 0.017). Furthermore, serial-order memory for the presentation of the 9
lunch items was less accurate in participants who had been distracted during lunch.
Conclusions:
These findings provide further evidence that distraction during one meal has the capacity to influence subsequent eating. They may also help to explain the well-documented association between sedentary screen-time activities and overweight.

The experiment was designed by Rose Oldham-Cooper, project partner and fellow student Charlotte Nicoll, and supervisors, Professor Jeff Brunstrom and Professor Peter Rogers.
The research has been cited a number of times in other scientific articles, as well as being reported by a number of media sources, including the Independent (http://www.independent.co.uk/life-style/health-and-families/health-news/game-playing-can-influence-food-intake-2172967.html), the Daily Mail, BBC Bristol, and Reuters.
Confirmation of agreement to submission of research from co-authors
Charlotte Hardman and Peter Rogers.