

# Fat still on the children's menu

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Parents should think twice before offering a low-fat menu to youngsters, despite concerns over obesity. Children burn more body fat than adults for each calorie spent, according to research in the online open access publication, *Nutrition Journal*, evidence that fat can be included as part of a child's healthy and balanced diet.

A US team led by John Kostyak from The Pennsylvania State University used calorimetry to measure whole body fat oxidation in 10 children (aged 6-10) and 10 adults. All had a body mass index (BMI) within the healthy, middle range.

Kostyak's team checked subjects' cardiovascular fitness and body fat, and all were given the same typical American diet for three days prior to testing (although adults had larger portions). Test subjects spent nine hours on three separate days at a low physical activity level, watching movies or reading, in either a room calorimeter or under a hood system, which quantify oxygen and carbon dioxide gas levels. The authors also measured the total amount of nitrogen in the subjects' urine, and used these measurements to calculate how much fat they oxidised.

Although the absolute amount of fat burned in a day did not differ greatly between children and adults, children burned considerably more fat relative to the amount of energy they used. In an attempt to determine the contribution of fat oxidation to daily calorie expenditure, the researchers calculated the grams of fat oxidized per kcal of energy expenditure. This value was higher in children ( $0.047 \pm 0.01$  g/kcal) compared to adults ( $0.032 \pm 0.01$ , p

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