

Children's packed lunches lack nutritional quality

Fewer than two in every 100 packed lunches eaten by children in English primary schools meet nutritional standards, according to a major survey.

Although the amount of sugary food in lunchboxes declined over ten years it is still higher than recommended, and there has been a drop in essential vitamins and minerals. The University of Leeds researchers say the lack of fresh food is to blame.

With just one in five children having any vegetables or salad in their packed lunch, the researchers argue that the Government should consider making fresh vegetables freely available in schools.

They are also calling on the food industry to look at ways of making it easier for parents and carers to select healthier food options for their children.

The research compared the nutritional quality of packed lunches brought into a sample of primary schools in 2006 and then in 2016. Their results, showing how the nutritional quality of lunchboxes has changed over ten years, is published in BMJ Open (<https://bmjopen.bmj.com/content/10/1/e029688>).

It has been estimated that more than half of primary school children take a packed lunch to school.

Over the ten year period, the researchers found:

- Non-milk extrinsic sugars – table sugar, glucose, honey and the sugar added to food and drinks – were down from an average of 40g per lunchbox to 24g, partly as a result of fewer sugary drinks and confectionery;
- Although reduced, sugar levels in two thirds of the packed lunches were still higher than recommended, although the researchers expected the downward trend to continue as a result of the sugar levy introduced in 2018;
- On a positive note, the size of confectionery bars reduced from 37g to 31g, as a result of smaller portions made by the food industry;
- Provision of fruit and particularly vegetables remained “...stubbornly low”;
- There was a reduction in the number of packed lunches meeting the standards for vitamin A, vitamin C and zinc. This was due to the lack of fresh fruit, salad and vegetables and unprocessed meat or fish;
- Many children did not have any dairy foods in their lunch, and meals did not meet the recommended standard for calcium;
- There was no reduction in saturated fats;
- There was no reduction in the portion size of crisps. The researchers say the food industry has not focused on reducing the size of savoury snacks in the same way it has on sweet snacks;

- The most common sandwich filling in both 2006 and 2016 was ham. Plant-based fillings such as humous or vegetable spreads made up less than 1% of packed lunches.

The researchers investigated whether packed lunches met the food standards that apply to cooked meals in England's schools.

Since 2006, eight standards have been introduced for cooked school lunches. Confectionery, savoury snacks and sweetened drinks are restricted while vegetables, protein and dairy have to be included in each meal.

Packed lunches, however, are not subject to any control.

The researchers found that the percentage of packed lunches meeting all eight food standards was very small, increasing slightly from 1.1% in 2006 to 1.6% over ten years.

Dr Charlotte Evans, an expert in diet and health and Associate Professor in the [School of Food Science and Nutrition](#) at Leeds, led the research.

She said: "This study underlines the role that parents, carers, the Government and the food industry have in ensuring children eat more healthily.

"In 2015, figures indicated that around one third of British 10-year-olds were obese – that is linked to what they are eating.

"The research has found that on some fronts, packed lunches have improved but they are still dominated by sweet and savoury snack food and sugary drinks. The vast majority provide poor nutritional quality. Addressing that issue over the next ten years will require a concerted effort.

"Improving what children eat at school will help reduce the risk of childhood obesity."

Policy response

The researchers argue that measures to increase fruit, vegetable and water consumption are "...critically needed". They say providing free salad vegetables at primary school for children having a packed lunch could be one way to achieve this.

The researchers also believe that time constraints play a part in what parents and carers decide to put in their children's lunchboxes and that the food industry should develop more lunchbox-friendly healthy options.

Some local authorities are working with schools to improve the nutritional quality of packed lunches.

[Leeds City Council](#) is one of those local authorities.

(<https://www.leeds.gov.uk/civicEnterprise/Our%20services/catering-leeds/more-than-a-school-meal-parent-information>)

Councillor Fiona Venner, Executive Member for Children and Families, said: "Ensuring children and young people have healthy and nutritious meals is a key priority for Leeds City Council and our Health and Wellbeing service offers regular

support, advice and training for schools on how they can promote healthier packed lunches.

“In 2016, the service successfully launched a packed lunch toolkit for schools in Leeds and West Yorkshire which helps them to develop their own nutritional guidance to support parents and carers make healthy choices for their children.

“The toolkit has been designed to assist the council’s plan to continue to reduce childhood obesity levels and offers a range of resources to support schools when engaging with pupils, parents and carers.”

But across England, the researchers say there is likely to be a huge variation in the approach taken by individual schools and councils and they would like to see a national, co-ordinated policy.

Dr Evans said: “Vegetables provide a wide range of nutrients essential for children’s growth and development including fibre, vitamin C and zinc.

“Children who take a packed lunch into school are at a greater risk of not getting sufficient nutrients compared to classmates who have a school meal.

“Under supervision, even young children can prepare carrots, cucumbers and peppers to supplement their packed lunch. Vegetables and salad will remain fresh in an air-tight container for several days.”

Information on the content and weight of individual items in packed lunches was collected from 1148 children aged between eight or nine in 76 schools across England in 2006, and from 323 children of the same age in 18 schools in 2016.