

Children who eat five or more portions of fruit and vegetables a day have the best mental health, according to the first study of its kind.

Higher intake is associated with better mental wellbeing among secondary school pupils, and a nutritious breakfast and lunch is linked to emotional wellbeing in pupils across all ages, the research shows.

The findings, published in the journal *BMJ Nutrition Prevention & Health*, have prompted experts to call for the inclusion of good nutrition in public health strategies to boost children's mental health. Data indicates that poor mental health among young people is soaring.

Record numbers are seeking access to NHS mental health services, [the Guardian reported last week](#). In just three months, nearly 200,000 young people have been referred to mental health services – almost double pre-pandemic levels, according to a report by the Royal College of Psychiatrists.

The new study is the first time researchers have investigated the association between how much fruit and vegetables UK schoolchildren eat, breakfast and lunch choices, and mental wellbeing.

The lead researcher, Prof Ailsa Welch at the University of East Anglia's Norwich Medical School, said: "While the links between nutrition and physical health are well understood, until now, not much has been known about whether nutrition plays a part in children's emotional wellbeing.

"We know that poor mental wellbeing is a major issue for young people and is likely to have long-term negative consequences."

Her team analysed data from almost 9,000 children in 50 primary and secondary schools across Norfolk taken from the Norfolk children and young people's health and wellbeing survey. Participants self-reported dietary choices and took part in mental wellbeing tests covering cheerfulness, relaxation and interpersonal relationships. The study took into account other factors that might have an impact including adverse childhood experiences and home situations.

"In terms of nutrition, we found that only around a quarter of secondary-school children and 28% of primary-school children reported eating the recommended five-a-day fruits and vegetables," said Welch. "Just under one in 10 children were not eating any fruits or vegetables.

"More than one in five secondary-school children and one in 10 primary children didn't eat breakfast. And more than one in 10 secondary-school children didn't eat lunch."

Dr Richard Hayhoe, also from UEA's Norwich Medical School, said: "Among secondary schoolchildren in particular, there was a really strong link between eating a nutritious diet, packed with fruit and vegetables, and having better mental wellbeing."

According to the data, in a class of 30 secondary pupils, 21 will have had a conventional breakfast, and at least four will have had nothing to eat or drink before starting classes in the morning. Three pupils will go

into afternoon classes without any lunch.

“Children who ate a traditional breakfast experienced better wellbeing than those who only had a snack or drink,” Hayhoe said. “But secondary schoolchildren who drank energy drinks for breakfast had particularly low mental wellbeing scores, even lower than for those children consuming no breakfast at all.”

Welch added: “As a potentially modifiable factor at an individual and societal level, nutrition represents an important public health target for strategies to address childhood mental wellbeing.”

Source: [Five a day: UK children with healthy diet have best mental health](#)