



# Eating fruit and veg associated with children's mental well-being

By [Jessica Norris](#) on September 30, 2021 — [Fact checked](#) by Rita Ponce, Ph.D.



A recent study looked for links between diet and mental well-being in children.  
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- **Multiple factors influence mental well-being, including nutrition.**
- **A recent study found that eating more fruits and vegetables was linked to better mental well-being among children.**
- **On the other hand, children who skipped meals were more likely to have lower well-being scores.**

Although well-being among adults and children is similar, it is not exactly the same for both groups. Children are still growing, and multiple factors need to be taken into account when evaluating children's health.

One area of interest is the association between nutrition and children's mental well-being. A new study, which appears in the journal [BMJ](#)

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and vegetables are more likely to have a better sense of mental well-being than those who eat less.

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## The mental well-being of children

The [Centers for Disease Control and Prevention \(CDC\)](#) provide the following definition of what it means for children to be mentally healthy:

“Being mentally healthy during childhood means reaching developmental and emotional milestones and learning healthy social skills and how to cope when there are problems. Mentally healthy children have a positive quality of life and can function well at home, in school, and in their communities.”

Psychologist and well-being consultant [Lee Chambers](#) further explained the impact of children’s mental well-being to *Medical News Today*.

“Mental well-being in children plays a vital role in more than their health outcomes. Positive mental well-being is influenced by a variety of factors, and, in turn, impacts a range of outcomes, from education to health [and from] friendships to decision making.”

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Chambers continues, “It also provides the platform to develop resilience, cope with stressors, and become rounded and healthy adults. It is also pivotal in their ability to be safe and for healthy relationships.”

“In an increasingly dynamic and uncertain world, mental well-being provides the foundations for children to build upon, to explore and learn, to play and have fun, and to navigate the challenges and adversity that come with being human.”

Research is ongoing when it comes to understanding the factors that influence mental health and well-being. The relationship between [nutrition and mental health](#) is an area of great interest — particularly regarding how nutrition is linked to the mental well-being of children.

The authors of the recent study note that:

“Nutrition, a modifiable factor at both an individual and societal level, is an important influence on health throughout the life course, is intricately involved in [the] development and normal functioning of the body, and thus has the potential to affect both physical health and mental well-being.”

## The study

The recent study was a cross-sectional study that examined the association between children’s consumption of fruits and vegetables, their meal choices, and their mental well-being.

Researchers collected data from more than 50 schools, including primary schools, secondary schools, and further education colleges.

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Based on the U.K.'s system, the oldest children included in the study would be the equivalent of seniors in United States high schools. The youngest children included in the analysis were 8 years old.

**These data came from The Norfolk Children and Young People's Health and Wellbeing Survey 2017. A total of 10,853 children filled out this survey.**

For students in secondary school, the researchers used a mental health assessment called the [Warwick-Edinburgh Mental Wellbeing Scale](#). For students in primary school, they used an assessment called the [Stirling Children's Well-Being Scale](#).

Both of these assessments use a system wherein a higher score indicates a higher level of well-being.

The survey also asked about the children's intake of fruits and vegetables and the types of breakfasts and lunches they ate.

The scientists also collected data on other covariates, such as:

- nutrition, including alcohol consumption, free school meal status, and weight satisfaction
- demographics, including age, ethnicity, and level of deprivation
- health, including long-term illnesses and disability status
- living situation, including whether or not children had their own rooms and whether or not their parents or caregivers smoked
- adverse experiences, including issues such as feeling safe and bullying

Some of these covariates, such as alcohol use, were not included in the survey for primary school children because the researchers deemed them inappropriate.

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## Nutrition and mental well-being

The study found that higher levels of fruit and vegetable consumption were associated with higher mental well-being scores among secondary school children.

It also found that, in secondary school children, only consuming an energy drink instead of breakfast was associated with lower mental well-being scores than not eating breakfast at all.

For both primary and secondary school children, the scientists found that mental well-being scores were higher for those who had breakfast or lunch than for children who did not eat these meals.

Study co-author [Prof. Ailsa Welch](#) highlighted the following findings to *MNT*:

**“In a class of 30 secondary school children, we found that [four] had nothing to eat or drink before starting classes in the morning, and [three] had nothing to eat or drink before the afternoon. Only 25% of children ate [five] or more fruits and vegetables a day, and 1 in 10 ate none.”**

“These statistics are concerning, as poor nutrition is likely to impact on academic performance at school as well as growth and development,” Prof. Welch added.

“The lower mental well-being scores of those who had no

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regular basis.”

– Prof. Ailsa Welch

## Limitations and implications

The researchers note a few limitations to their study. Firstly, because the children only took the questionnaires once, the scientists could not track changes in well-being and diet over time.

Secondly, the data collection relied on self-reporting from children, which has the potential to be inaccurate. They also note that some of the questions related to the children’s diets were simplistic.

Based on previous research and the study’s results, the study authors advocate for schools to work to ensure that that nutritious food is available to all children.

Prof. Welch emphasized to *MNT* that:

“Good quality nutrition needs to be available to all children of school age to optimize mental well-being and empower children to fulfill their full potential. The associations found between nutrition and mental well-being in our study mean that strategies to improve nutrition in school children need to be investigated and implemented.”

Prof. Welch also noted that we need to understand the reasons that some

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“Further investigations are required to uncover the reasons why some children are not having breakfast, and/or lunch, or are consuming energy drinks only. These may include social, cultural, knowledge, and economic factors, including provision and access to [fruits] and vegetables being limited in areas of deprivation.”

Overall, this link between nutrition and mental well-being emphasizes the importance of addressing the nutritional needs of children when considering their mental well-being.

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