

# The Parent's Reading Library

## Food, Nutrition & Neurodivergent Children

### Section 3

## Whole-food Nutrition

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### Why this topic matters

Whole foods are foods that are as close as possible to their natural form. They include vegetables, fruit, legumes, nuts, seeds, eggs, fish, lean meats and minimally processed dairy products. These foods naturally provide a wide range of vitamins, minerals, fibre, healthy fats and antioxidants that work together to support normal growth, brain development and overall health.

Many children with ADHD and autism consume fewer whole foods than recommended because of selective eating, sensory sensitivities or convenience. Current research suggests that improving overall dietary quality by increasing whole-food intake is an important part of supporting children's nutrition and long-term wellbeing.

## 1. The Role of Nutrition in Children's Neurocognitive Development

### Reference

Nyaradi, A., Li, J., Hickling, S., Whitehouse, A. J. O., & Oddy, W. H. (2013). *The role of nutrition in children's neurocognitive development, from pregnancy through childhood*. **Frontiers in Human Neuroscience**, **7**, 97.

### DOI

<https://doi.org/10.3389/fnhum.2013.00097>

### Plain English Summary

This review explains how nutrients obtained from a varied whole-food diet support normal brain growth, memory, learning and behaviour. The authors conclude that healthy eating patterns are more important than focusing on individual nutrients alone.

## 2. Dietary Patterns and ADHD: A Systematic Review

### Reference

Del-Ponte, B., Anselmi, L., Assunção, M. C. F., Munhoz, T. N., Matijasevich, A., & Tovo-Rodrigues, L. (2019). *Dietary patterns and attention deficit/hyperactivity disorder (ADHD): A systematic review*. **Journal of Affective Disorders**, **252**, 160–173.

### DOI

<https://doi.org/10.1016/j.jad.2019.04.061>

### Plain English Summary

Researchers reviewed studies examining whole dietary patterns rather than single nutrients. Children consuming healthier diets rich in whole foods generally had fewer ADHD symptoms than those consuming more processed foods, although the evidence shows association rather than causation.

## 3. Relationship Between Diet and Mental Health in Children and Adolescents

### Reference

O’Neil, A., Quirk, S. E., Housden, S., Brennan, S. L., Williams, L. J., Pasco, J. A., Berk, M., & Jacka, F. N. (2014). *Relationship between diet and mental health in children and adolescents: A systematic review*. **American Journal of Public Health**, **104**(10), e31–e42.

### DOI

<https://doi.org/10.2105/AJPH.2014.302110>

### Plain English Summary

Across many studies, children and adolescents who consumed healthier diets generally experienced better mental health outcomes. The review supports encouraging balanced, whole-food eating patterns as part of overall health promotion.

## 4. Association Between Diet Quality and Mental Health in Children and Adolescents

### Reference

Jacka, F. N., Kremer, P. J., Leslie, E. R., Berk, M., Patton, G. C., Toumbourou, J. W., & Williams, J. W. (2010). *Association between diet quality and mental health in children and adolescents*. **Australian and New Zealand Journal of Psychiatry**, **44**(5), 435–442.

### DOI

<https://doi.org/10.3109/00048670903571598>

### Plain English Summary

Australian researchers found that adolescents who consumed more vegetables, fruit and other nutritious foods reported better mental health than those whose diets contained more processed foods. The findings reinforce the value of healthy eating for all children.

## 5. Whole Dietary Patterns and Child Health

### Reference

Hu, F. B. (2002). *Dietary pattern analysis: A new direction in nutritional epidemiology*. **Current Opinion in Lipidology**, **13**(1), 3–9.

### Plain English Summary

Professor Frank Hu explains why nutrition research has shifted from studying single nutrients to studying whole dietary patterns. Foods naturally work together, making whole diets a better reflection of how people actually eat.

## 6. Whole Foods and Brain Health

### Reference

Benton, D. (2010). *The influence of children's diet on their cognition and behaviour*. **European Journal of Nutrition**, **49**(Suppl. 1), S25–S37.

### DOI

<https://doi.org/10.1007/s00394-010-0088-y>

## Plain English Summary

This review highlights the importance of a balanced diet rich in naturally nutritious foods for children’s concentration, learning and behaviour. Rather than recommending a single “brain food”, it emphasises overall dietary quality.

## 7. Healthy Eating and Child Development

### Reference

Nyaradi, A., Li, J., Hickling, S., Foster, J. K., & Oddy, W. H. (2015). *The role of nutrition in children’s neurocognitive development*. **Proceedings of the Nutrition Society**, 74(4), 327–336.

## Plain English Summary

This review discusses how good nutrition during childhood supports healthy brain development, learning and academic performance. It highlights the importance of establishing healthy eating habits from an early age.

## 8. Dietary Quality and Child Health

### Reference

World Health Organization. (2020). *Healthy Diet*.

<https://www.who.int/news-room/fact-sheets/detail/healthy-diet>

## Plain English Summary

The World Health Organization recommends diets based on vegetables, fruit, legumes, nuts, whole grains and minimally processed foods to support health throughout life. These principles apply to all children, including those with neurodevelopmental conditions.

**Note:** This is an international guideline rather than a peer-reviewed journal article but is included because it reflects global public health recommendations.

## What this means for families

There is no single “perfect” food that improves ADHD or autism. Instead, research consistently supports offering a wide variety of nutritious whole foods over time. Every meal doesn’t have to be perfect—small improvements, such as adding another vegetable, swapping sugary snacks for fruit or including more legumes, fish or lean proteins, can gradually improve your child’s overall diet quality.

For children with selective eating or sensory sensitivities, progress is often slow. Celebrate small successes, continue offering a range of foods without pressure and seek professional advice if you are concerned about your child’s growth or nutritional intake.

## Evidence at a Glance

**Overall evidence: ★★★★★ Strong**

### What research consistently shows

- Whole-food dietary patterns provide the nutrients children need for healthy growth and brain development.
- Researchers now study overall dietary patterns rather than individual nutrients because foods work together.
- Higher-quality diets are consistently associated with better health and developmental outcomes.
- Whole-food nutrition supports all children, regardless of whether they have ADHD, autism or another neurodevelopmental condition.
- Improving diet quality should be viewed as one part of comprehensive care alongside medical, behavioural, educational and allied health support.