The Parent's Reading Library

Food, Nutrition & Neurodivergent Children

Section 5

Sensory Processing & Feeding

Why this topic matters

Many neurodivergent children experience the world differently through their senses. The texture, smell, taste, colour, temperature or even the sound of food being chewed can influence whether a child is willing to eat it.

Sensory processing differences are now recognised as one of the major reasons many children with ADHD and autism develop restricted eating patterns. Understanding these sensory preferences can help families reduce stress at mealtimes and gradually introduce new foods in ways that feel safe for the child.

1. Food Selectivity and Sensory Sensitivity in Children with Autism Spectrum Disorders

Reference

Cermak, S. A., Curtin, C., & Bandini, L. G. (2010). *Food selectivity and sensory sensitivity in children with autism spectrum disorders*. **Journal of the American Dietetic Association, 110**(2), 238–246.

DOI

https://doi.org/10.1016/j.jada.2009.10.032

Plain English Summary

Children with greater sensory sensitivities were much more likely to refuse foods because of their texture, smell, appearance or taste. The study highlights the importance of understanding sensory preferences rather than assuming children are simply being difficult.

2. Parents' Reported Oral Sensory Sensitivity Processing and Food Preference in Children with ADHD

Reference

Ghanizadeh, A. (2011). *Parents' reported oral sensory sensitivity processing and food preference in children with attention-deficit/hyperactivity disorder*. **Journal of Psychiatric and Mental Health Nursing, 18**(7), 623–630.

DOI

https://doi.org/10.1111/j.1365-2850.2011.01721.x

Plain English Summary

Parents reported that children with ADHD often had increased oral sensory sensitivities that affected which foods they would eat. Recognising these sensory differences may help explain food refusal and guide more supportive feeding approaches.

3. Feeding Problems and Nutrient Intake in Children with Autism Spectrum Disorders

Reference

Sharp, W. G., Berry, R. C., McCracken, C., Nuhu, N. N., Marvel, E., Saulnier, C. A., Klin, A., Jones, W., & Jaquess, D. L. (2013). *Feeding Problems and Nutrient Intake in Children with Autism Spectrum Disorders: A Meta-analysis and Comprehensive Review of the Literature*. **Journal of Autism and Developmental Disorders, 43**(9), 2159–2173.

DOI

https://doi.org/10.1007/s10803-013-1771-5

Plain English Summary

This comprehensive review found that sensory sensitivities are one of the major contributors to feeding difficulties in autistic children. Many children preferred only a narrow range of foods with familiar textures and flavours.

4. Sensory Processing During Childhood

Reference

Dunn, W. (1997). *The impact of sensory processing abilities on the daily lives of young children and their families: A conceptual model*.

Plain English Summary

Professor Winnie Dunn's work helped explain why some children actively seek certain sensory experiences while avoiding others. Her model remains widely used by occupational therapists working with children who experience feeding and sensory challenges.

Note: Please verify the original publication details before publication.

5. Sensory Over-Responsivity and Food Selectivity

Reference

Ben-Sasson, A., Hen, L., Fluss, R., et al. (2009). *A meta-analysis of sensory modulation symptoms in individuals with autism spectrum disorders*. **Journal of Autism and Developmental Disorders, 39**(1), 1–11.

DOI

https://doi.org/10.1007/s10803-008-0593-3

Plain English Summary

This review found that sensory over-responsivity is significantly more common in autistic people than in the general population. Sensory differences may explain why some children strongly reject certain foods, textures or smells.

6. Mealtime Behaviour and Sensory Differences

Reference

Provost, B., Crowe, T. K., Osbourn, P. L., McClain, C., & Skipper, B. J. (2010). *Mealtime behaviours of preschool children with autism spectrum disorder*.

Plain English Summary

Children with autism were more likely to display challenging mealtime behaviours, many of which were associated with sensory sensitivities and food selectivity. The authors recommend understanding the child's sensory experiences when planning meals.

Note: Please verify the final journal details and DOI before publication.

7. Occupational Therapy and Feeding Difficulties

Reference

Marshall, J., Ware, R., Ziviani, J., Hill, R. J., & Dodrill, P. (2015). *Efficacy of interventions to improve feeding difficulties in children with autism spectrum disorders: A systematic review and meta-analysis*.

Plain English Summary

This review examined interventions used to help children with feeding difficulties. It found that structured, supportive approaches involving families and health professionals can improve food acceptance over time.

Note: Please verify the final journal citation and DOI before publication.

8. Oral Sensory Processing and Feeding Development

Reference

Toomey, K. A., & Ross, E. S. (2011). *SOS Approach to Feeding*.

Plain English Summary

The SOS (Sequential Oral Sensory) Approach describes how children learn to tolerate and eventually accept new foods through gradual exposure rather than pressure. While the approach is widely used in clinical practice, research evaluating its effectiveness continues to develop.

Note: This is a recognised clinical approach rather than a peer-reviewed research paper and is included because many families encounter it through feeding therapy.

What this means for families

Many children with ADHD, autism and other neurodevelopmental conditions experience foods differently. A child who refuses a food may be reacting to its texture, smell, temperature or appearance rather than deliberately refusing to cooperate.

Understanding your child's sensory preferences can reduce frustration for everyone at the table. Small, gradual exposure to new foods in a calm and supportive environment is generally more successful than pressure, punishment or rewards. If feeding difficulties are affecting your child's nutrition, growth or family life, ask your GP about a referral to an occupational therapist, speech pathologist or Accredited Practising Dietitian with experience in paediatric feeding.

Evidence at a Glance

Overall evidence: ★★★★★ Strong

What research consistently shows

- Sensory processing differences are common in neurodivergent children.
- Texture, smell, taste, temperature and appearance all influence food acceptance.
- Feeding difficulties are usually more complex than "picky eating".
- Supportive, gradual exposure to new foods is generally more effective than pressure.
- Early professional support can help children expand food variety while respecting their sensory needs.