



## Occupational therapy and sensory processing: Working with young children with autism. (Part 2)

Helen Bourke-Taylor PhD

### What is sensory processing?

Sensory processing is the normal neurological function that all people experience when their brain processes sensory information from the environment around them. Sensory information is visual (what we see), gustatory (taste), auditory (what we hear), tactile (what we feel through our skin), and vestibular and proprioceptive (where we are in space and how our limbs are positioned). Sensory processing makes each of us who we are, with individualized preferences and aversions that influence what our interests and chosen activities may be.

### Why is sensory processing important for some children with ASD

Research has shown that children with ASD may process their sensory environments differently to other children (Brown & Dunn, 2010; Pollock, 2009). Unusual sensory processing can have a great influence on how a child interacts with their world and how they participate in daily occupations (Koenig & Rudney, 2010; Robinson & Magill-Evans, 2009). Families may notice that their child with ASD has unusual reactions to some aspects of the sensory environment. However, all people have individualized sensory preferences, and it is important to recognize that unusual sensory preferences or aversions may not influence a child's functioning or learning as much as language, social and cognitive challenges which reflect the key neurodevelopmental problems in autism.

Remember: "*A problem is not a problem unless it's a problem*" --Dr. Jill Ashburner, Research and Development, Autism Queensland

---

Occupational therapists use specific assessments to determine how a child is processing their sensory world and how their sensory processing influences the child's abilities and development. An instrument that is commonly used by occupational therapists is the Sensory Profile (Infant and Toddler) (Dunn, 1999). The Sensory profile is a tool to measure the child's responses to sensory events in everyday life that support or interfere with function. Use of this tool allows parents and therapists to better understand the child's abilities and behaviors in play, self

care, motor, social and during communication. Tools such as the sensory profile assist the family and professionals to understand the complexities of the child's sensory processing difficulties.

### How do sensory processing issues impact on a child's participation in daily activities?

For some children with an ASD, sensory processing difficulties that are a consequence of their atypical brain function, may impact on participation in key ways. For example, at times children may find certain sensory experiences (soft touch or loud noises) so aversive, that an event or activity is avoided. This results in reduced participation in, or disruption of family routines. Children may avoid family events—mealtimes, outings, travel. Children may participate less in activities at kindergarten/childcare/school and environments that involve other children or structured/busy environments. For example, they may have difficulty sitting on the mat for story time, standing in line, or managing lunch items. Children may fidget, move too much, avoid tasks, or be pre-occupied with aspects of the environment. Sensory processing difficulties may reduce a child's self care skills — grooming, dressing, bathing, and toileting. Parents may report struggles with hair combing, teeth cleaning, haircuts & nail trimming.

Occupational therapists intervene to accommodate a child's sensory processing or to reduce the impact on the child's performance on the daily tasks that the child wants or needs to do. Intervention is aimed at facilitating change, improving understanding about sensory reactions and facilitating participation in the child's tasks.

### Is sensory processing and sensory integration that same thing?

Sensory processing and sensory integration (SI) are not synonymous. Currently in OT, there are 2 fields of thought (Pollock, 2009; Rodger, et al., 2010). On the one hand, some OTs will attempt to remediate underlying impairments (traditional SI). Other OTs will focus on enabling the child and families participation through accommodation and adaptation to the sensory environment. Parents need to be aware that there are a number of dubious sensory interventions that promise unrealistic outcomes for children and families.

Ultimately families must focus on collaborating with OTs to establish goals for their child and family that are measurable and indicate meaningful progress. Occupational therapists are evidence based practitioners who are responsible for providing families with evidence to substantiate interventions and measurable goals that indicate progress. OTs have access to a National Continuing Professional Development online package to up skill in the services provided to children with ASD and their families. This is available through their national organization.

### Where can I find an OT?

Contact Occupational Therapy Australia Limited:  
[www.ausot.com.au/inner.asp?pageid=143](http://www.ausot.com.au/inner.asp?pageid=143)

## Selected References

- Ashburner, J., Ziviani, J., Rodger, S. (2008) Sensory processing and classroom emotional behavioural and educational outcomes in children with autism spectrum disorder. *American Journal of Occupational Therapy*, 62 (5), 564-573.
- Ayres, J. (1979). *Sensory Integration and the Child*. Western Psychological Services, Los Angeles.
- Bennett, N.B., Dunn, W (2010) Relationship between context and sensory processing in children with Autism. *American Journal of Occupational therapy*, 64 (3), 474-483.
- Bourke-Taylor, H. M., Law, M., Howie, L., & Pallant, J. F. (2009). Development of the Assistance to Participate Scale (APS) for children's play and leisure activities. *Child: Care, Health and Development*, 35 (5), 738-745.
- Bourke-Taylor, H. M., Howie, L., Law, M. (2010). Impact of caring for a school aged child with a disability: Understanding mothers' perspectives. *Australian Occupational Therapy Journal*, 57 (2), 127-136.
- Bourke-Taylor, H. M., Law, M., Howie, L., & Pallant, J. F. (2010). Development of the Child's Challenging Behaviour Scale (CCBS) for mothers of school aged children with disabilities. *Child: Care, Health and Development*, 36 (4), 491-498.
- Cartmill, L., Rodger, S., Bourke-Taylor, H.M., (2010) Online self paced learning modules, Helping Children with Autism, Occupational Therapists national professional development site (20 hours package accessed by members through Occupational Therapy Australia and funded by FaCHSIA).
- Case-Smith, J & Arbesman M. (2008). Evidence-Based Review of Interventions for Autism Used in or of Relevance to Occupational Therapy. *American Journal of Occupational Therapy*, 62 (4), 416-429.
- Dickie, V.A., Baranek, G.T., Schultz, B., Watson, L.R., McComish, C.S. (2009) Parent reports of sensory experiences of preschool children with and without autism: A qualitative study. *American Journal of Occupational Therapy*, 63 (2), 5172-181
- Dunn, W. (1999) *Sensory Profile User's Manual*, The Psychological Corporation, Harcourt Assessment Company.
- Dunn, W. (2007) Supporting children to participate successfully in everyday life by using sensory processing knowledge. *Infants and Young Children*, 20 (2), 84-101.
- King, G., Law, M., King, S., Rosenbaum, P., Kertoy, M., & Young, N. (2003). A conceptual model of the factors affecting the recreation and leisure participation of children with disabilities. *Physical and Occupational Therapy in Pediatrics*, 23 (1), 63-89.
- Koenig, K.P., Rudney, S.G. (2010) Performance challenges for children and adolescents with difficulty processing and integrating sensory information: A systematic review. *American Journal of Occupational therapy*, 64 (3), 430-442.
- Murray-Slutsky, C and Paris, B. (2005). *Is it Sensory or Is it Behaviour? Behaviour Problem Identification Assessment, and Intervention*. Hammill Institute on Disabilities, Austin, Texas.
- Myers, S, Plauche Johnson, C, & the Council on Children with Disabilities, 2009, online: [www.pediatrics.org/cgi/content/full/120/5/1162](http://www.pediatrics.org/cgi/content/full/120/5/1162)
- Pollock, N. (2009) Sensory Integration: A review of the current state of the evidence. *Occupational Therapy Now*, 11 (5), 6-11.
- Prior, M and Roberts, J. (2006). *Early Intervention for Children with Autism Spectrum Disorders: Guidelines for Best Practice*. [www.health.gov.au](http://www.health.gov.au)

Robinson, S., Magill-Evans, J. (2009) Young children with autism spectrum disorder: Sensory processing and daily life skills. *Occupational Therapy Now*, 11 (5), 11-14.

Rodger, S., Ashburner, J., Cartmill, L., Bourke-Taylor, H.M. (2010) Helping children with Autism Spectrum Disorders (ASD) and their families: Are we losing our occupation- centred focus? *Australian Occupational Therapy Journal*, 57 (4), 276-280.