# Sensory Processing Workshop

Anita Bradshaw, M.Ed

What is Sensory Processing?

Sensory Processing is... how your brain interprets messages about your senses.

What do we mean by Sensory Processing Disorder?

This is when messages about your senses get 'lost in translation'.

We are familiar with;

sight - eyes, hearing - ears, smell - nose, taste - tongue, touch - skin.

We may not be so familiar with;

VESTIBULAR - movement and balance, PROPRIOCEPTION - muscles and joints.

For those of you who are wondering, your 8th sense is your INTEROCEPTION (internal).

There are three areas of Sensory Processing, these are:

Sensory Modulation (hyper / hypo / sensory seeking),

Sensory Discrimination (differentiating between sensations) and

Sensory Based Motor (postural disorder and Dyspraxia).

Diagnoses known to have links with Sensory Processing Disorder include;

Attention Deficit Hyperactivity Disorder (ADHD), Dyslexia, Dyspraxia, Angelmans, Autism, Asperger Syndrome, CHARGE, BiPolar Disorder, Williams Syndrome, Down Syndrome, Coffin-Lowry Syndrome, Childhood Disintegrative Disorder, Elective Mutism, Fetal Alcohol Syndrome, Non-Verbal Learning Disorder, Fragile X, Prader-Willi Syndrome, Epilepsy, Rett Syndrome and some anxiety disorders...

**Imagine** how you would you feel if you had to live every day with just a few of the distractions, anxieties and fears that we have on our Matrix? And we wonder why some individuals display such high levels of anxiety... AND it gets worse – when you are anxious, your sensory responses can become heightened.

**Temple** Grandin says, in her opinion, 100% of people with autism have SPD An Australian study showed that SPD accounted for a 47% variance in academic attainment In my current school, 9% of ALL PUPILS have conditions linked to SPD, in my former school, that number was 52%

A SENSORY DIET is put into place to help individuals with SPD. Usually, and ideally, this is put into place by an Occupational Therapist trained in Sensory Integration.

# Sensory Processing Disorder

Sensory Modulation Disorder (Hyper / Hypo/ Seeking)
Sensory Discrimination Disorder
Sensory Based Motor Disorder (Dyspraxia)

Always ensure that all activities are S.A.F.E. (Safe, Appropriate, Fun and Easy)

C. Kranowitz The Out-of-Sync-Child.com

SPD is a complex disorder which affects individuals in different ways.

Before you can help a pupil, you need to determine exactly what type of difficulties they are experiencing, where they experience them, when they experience them and how it affects their ability to learn or participate.

Beanbags; 'Heavy' work- pushing, pulling, carrying; Trampolining; Weighted items; Fiddles

To help pupils with SPD we need to Profile, Plan, Share.

**Sensory profiles** vary in the way they are presented. The information they provide is really important in helping pupils.

|   | Sensory Modulation<br>Over (Hyper)-<br>responsive          | Sensory<br>Modulation<br>Under (Hypo)-<br>responsive          | Sensory Modulation<br>Sensory Seeking  |
|---|--|---|--|
| Taste<br>(gustatory)                    | Gags easily,<br>Oversensitive to food<br>textures          | Not aware of the intensity of tastes                          | Chews on everything,<br>Snacks frequently,<br>Prefers hard foods                       |
| Touch (tactile)                         | Dislikes unexpected touch, Finds labels uncomfortable      | May be unaware of<br>an injury,<br>High threshold for<br>pain | Hoards items,<br>fills room with too<br>many things                                    |
| Hearing<br>(auditory)                   | Hears sounds others<br>are unaware of,<br>Covers ears      | Only responds to very loud sounds                             | Speaks too loudly,<br>always has to be told<br>to lower his / her<br>voice.            |
| Smell<br>(olfactory)                    | Aware of odours most people don't notice                   | Not bothered by strong smells, even offensive smells          | Smells objects not<br>meant for smelling<br>such as hair,may seek<br>out strong odours |
| Sight (visual)                          | Sensitive to lights,<br>Overstimulated by<br>clutter       | Doesn't notice<br>changes in decor,                           | Seeks out busy<br>scenes in books<br>(where's Wally),<br>enjoys busy scenes            |
| Balance and<br>Movement<br>(vestibular) | Fearful of falling,<br>Dislikes changing<br>levels (steps) | Clumsy and un-<br>coordinated,<br>Poor balance                | craves movement,<br>moves quickly,<br>constantly 'on the go'                           |
| Position<br>(proprioception)            | Appears rigid,<br>Doesn't like physical<br>activities      | Tires easily, needs<br>frequent breaks<br>during exercise     | Loves to wrap self,<br>seeks deep pressure<br>hugs, enjoys<br>squeezing things         |

Matrix based on groupings in Ostovar, R. (2009) *The Ultimate Guide to Sensory Processing Disorder* 

# Remember!

If you think someone may be affected by SPD, you should contact an Occupational Therapist. You can get referred to one via your doctor, school CAMHS, NHS etc...

Anita Bradshaw: <a href="mailto:anitasbradshaw@yahoo.co.uk">anitasbradshaw@yahoo.co.uk</a>

anitasbradshaw@sandownbayacademy.org

# Sensory Processing Disorder

#### What is it?

Sensory Processing Disorder (SPD) is a neurological disorder, meaning it affects the nervous system. It affects the way the brain 'translates' information from, and back to, our sensory receptors. Children with Sensory Processing difficulties are often (wrongly) diagnosed as having behavioural problems, but SPD can affect the child's physical, psychological, emotional and social well-being as well as having a direct impact on their learning.

Sensory difficulties occur in three areas - Sensory Modulation, Sensory Discrimination and Sensory Based Motor skills.

Children who have SPD can present as:

- challenging, often with high levels of anxiety
- fidgety and hyperactive OR may have noticeably low activity levels
- disorganised and careless, often with low self esteem
- having poor coordination and balance, sometimes this is called dyspraxia.

'Diagnosing' SPD is difficult as it is not yet officially recognised as a disorder. However, Occupational Therapists, particularly those trained in Sensory Integration, will be able to recognise SPD and offer help and suggest appropriate 'sensory diets' to alleviate the effects.

# Did you know?

- 1. SPD affects approximately 5 children in every 100.
- 2. We consider 8 senses, not 5, when talking about SPD.
- 3. SPD is often misdiagnosed as ADHD.
- **4.** Harry Potter (Daniel Radcliffe) has a form of SPD.
- **5.** SPD is often 'comorbid' and may present with a second condition such as Bipolar Disorder, Autism, Down Syndrome, and many other conditions.

# What can help?

- A child with suspected SPD needs to be seen by a specialist Occupational Therapist.
- A Sensory Diet, designed to help the unique difficulties of each child, is essential.
- An environment that minimises the chance for over-stimulation from noise, lights, smells and other sensory input will be beneficial.

#### Where can I find out more?

- 1. The Out of Sync Child: Sensory Processing Disorder (<a href="www.out-of-sync-child.com">www.out-of-sync-child.com</a>)
- 2. The Sensory Processing Disorder Foundation (<u>www.spdfoundation.net</u>)

# **Books to help you understand Sensory Processing Disorder**

Ayers, A. J. (1979) *Sensory Integration and the Child*. Los Angeles: Western Psychological Services (WPS).

Biel, L. and Peske, N. (2nd edn.) (2009) Raising a Sensory Smart Child: The Definitive Handbook for Helping Your Child with Sensory Processing Disorder. New York: Penguin.

Caldwell, P. and Horwood, J. (2008) *Using Intensive Interaction and Sensory Integration:* A Handbook for Those who Support People with Severe Autistic Spectrum Disorder. London: Jessica Kingsley Publishers.

Christmas, J. (2012) Sensory Dinosaurs. Milton Keynes: Speechmark.

Delaney, T. (2008) The Sensory Processing Disorder Answer Book. Naperville: Sourcebooks inc.

Dunn, W. (2009) *Living Sensationally: Understanding Your Senses.* London: Jessica Kingsley Publishers.

Godwin Emmons, P. and McEndry Anderson, L. (2005) *Understanding Sensory Dysfunction: Learning, Development and Sensory Dysfunction in Autism Spectrum Disorders, ADHD, Learning Disabilities and Bipolar Disorder.* London: Jessica Kingsley Publishers.

Heller, S. (2003) Too Loud, Too Bright, Too Fast, Too Tight: What to do if you are sensory defensive in an overstimulating world. New York: Quill.

Kashman, N. and Mora, J. (2005) *The Sensory Connection: An OT and SLP Team Approach.* Arlington: Future Horizons.

Kranowitz, C.S. (2005) *The Out of Sync Child: Recognizing and Coping with Sensory Processing Disorder*. New York: Perigee.

Kranowitz, C.S. (2009) *Sensory Issues in Learning and Behaviour* (DVD). Arlington: Future Horizons.

Kranowitz, C (2010) (Revised Edition) *The Goodenoughs Get in Sync.* Future Horizons, inc. Arlington.

Miller, L. J. (2007) Sensational Kids: Hope and Help for Children with Sensory Processing Disorder. New York: Perigee.

Ostovar, R. (2009) The Ultimate Guide to Sensory Processing Disorder: Easy, Everyday Solutions to Sensory Challenges. Arlington, TX: Sensory World.

Steiner, H. (2012) *This is Gabriel; Making Sense of School.* Arlington: Sensory World. Written for

Wheeler, M. (2nd edn) (2007) *Toilet Training for Individuals with Autism or other Developmental Issues.* Arlington: Future Horizons inc. (Includes sensory issues in toileting)

Yack, E., Aquilla, P. and Sutton, S. (2nd edn.) (2002) *Building Bridges through Sensory Integration*. Arlington: Future Horizons inc.

# DVDs and CDs to help you understand Sensory Processing Disorder

Kranowitz, C., Szklut, S. and Silver, D. (2009) *A Teacher's Guide to Sensory Processing Disorder* (CD). Arlington: Sensory World.

Kranowitz, C.S. (2009) *The Out of Sync Child: Recognizing and Coping with Sensory Processing Disorder* (DVD). Arlington: Future Horizons.

Kranowitz, C.S. (2010) *Getting Kids in Sync: Sensory Motor activities to Help Children Develop Body Awareness and integrate Their Senses* (DVD). Arlington: Sensory World.

Webb, T. (1992) A is for Autism. (DVD) London: BFI Publishing. (Includes sensory issues)

### Books with activities that can help you plan a sensory diet

Always ensure that all activites are S.A.F.E. (Safe, Appropriate, Fun and Easy)

C. Kranowitz The Out-of-Sync-Child.com

Arnwine, B. (2007) Starting Sensory Integration Therapy: Fun Activities That Won't Destroy Your Home or Classroom. Arlington: Future Horizons Inc..

Arnwine, B. (2011) *Starting Sensory Therapy: Fun Activities for the Home and Classroom.* Arlington: Future Horizons Inc..

Brownlee, F and Munro, L. (2010) Fuzzy Buzzy Groups for Children with Developmental and Sensory processing Difficulties. London: Jessica Kingsley Publishers.

Dennison, P. and Dennison, G. (2010) *Brain Gym: Teacher's Edition.* Ventura: Edu-Kinesthetics, Inc. (Not linked specifically to SPD but some of these activities will help)

Delaney, T (2009) 101 Games and Activities for Children with Autism, Asperger's and Sensory Processing Disorders. New York: McGraw-Hill.

Horwood, J. (2008) Sensory Circuits. Nottingham: LDA.

Kranowitz, C.S. (2006) *The Out of Sync Child Has Fun: Activities for Kids with Sensory Processing Disorder.* New York: Perigee.

Kranowitz, C. and Newman, J. (2010) Growing an In-Sync Child. New York: Perigee

Larkey, S. (2007) *Practical Sensory Programmes for Students with Autistic Spectrum Disorders and Other Special Needs.* London: Jessica Kingsley Publishers.

Longhorn, F. (2007) *The Sensology Workout - waking up the senses.* Great Britain: Flo Longhorn.

Sher, B. (2009) Early Intervention Games: Fun, Joyful Ways to Develop Social Skills in Children with Autism Spectrum or Sensory Processing Disorders. San Francisco: Jossey Bass.

Yack, E., Aquilla, P. and Sutton, S. (2nd edn.) (2002) *Building Bridges through Sensory Integration*. Arlington: Future Horizons inc.

# Books to help you understand what difficulties someone might have in terms of Sensory Processing Disorder

Auer, R. and Auer, M. (2010) *Making Sense of Your Senses: A Workbook for Children with Sensory Processing Disorder.* Oakland: New Harbinger Publications.

Bogdashina, O. (2003) Sensory Perceptual Issues in Autism and Asperger Syndrome: Different Sensory Experiences, Different Perceptual Worlds. London: Jessica Kingsley Publishers.

Christmas, J. (2012) Sensory Dinosaurs. Milton Keynes: Speechmark.

Longhorn, F. (2007) *The Sensology Workout - waking up the senses.* Great Britain: Flo Longhorn.

Yack, E., Aquilla, P. and Sutton, S. (2nd edn.) (2002) *Building Bridges through Sensory Integration*. Arlington: Future Horizons inc.

# **Books for professionals about Sensory Processing Disorder**

Berger, D. (2002) *Music Therapy, Sensory Integration and the Autistic Child.* London: Jessica Kingsley Publishers.

Bogdashina, O. (2003) Sensory Perceptual Issues in Autism and Asperger Syndrome: Different Sensory Experiences, Different Perceptual Worlds. London: Jessica Kingsley Publishers.

Bowen, M. and Plimley, L. (2008) *The Autism Spectrum Toolkit*. London: Sage Publications Ltd. (This includes a PowerPoint presentation on CD about Sensory Issues)

Christmas, J. (2009) Hands on Dyspraxia: Supporting Children and Young People with Sensory and Motor Learning Challenges. Milton Keynes: Speechmark.

Davis, J. (2001) A Sensory Approach to the Curriculum for Pupils with Profound and Multiple Learning Difficulties. London: David Fulton Publishers. (Not linked to SPD but useful for planning for PMLD)

Koomar, J., Kranowitz, C., Szklut, S., Balzer-Martin, L., Haber, E. and Sava, D. I. (3rd edn) (2007) *Answers to Questions Teachers Ask about Sensory Integration.* Watertown: Future Horizons inc..

Morris, K. (Ed.) (2010) *Insights into Sensory Issues for Professionals: Answers to Sensory Challenges*. Arlington: Sensory World (Future Horizons)

Reebeye, P and Stalker, A. (2008) *Understanding Regulation Disorders of Sensory Processing in Children: Management Strategies for Parents and Professionals.* London, Jessica Kingsley Publishers.

Sherborne, V. (2001) Developmental Movement for Children. London: Worth Publishing.

#### **Useful Websites**

http://www.sensory-processing-disorder.com

http://www.spdfoundation.net

http://www.out-of-sync-child.com