

INFORMATION AND RESOURCES



ADDvanced Solutions
Supporting you to find the answers

A Brief History of Sensory Processing / Integration:

What is it and where does it come from?

Sensory processing difficulties have probably existed for as long as there have been people. Sensory Integration Dysfunction as it was first known, was first defined by Dr A. Jean Ayres, who was born in California in 1920.

Following her training, Jean Ayres began work at the UCLA Brain Research Institute, where her interest and study of sensory integration dysfunction began. She identified that when confronted with patients who complained of experiencing pain when brushing their hair or teeth that the cause was inefficient organisation of sensory information within the central nervous system. She believed this inefficiency of processing information effectively led to a multitude of symptoms, including disorganisation of movement, and behavioural and learning difficulties.

In 1976, Ayres founded the Ayres Clinic in Torrance, California for children being treated by sensory integration therapists. Dr Jean Ayres developed a theoretical framework, a set of standardised tests (today known as the Sensory Integration and Praxis Tests), and a clinical approach for identification and remediation of SI problems in children, known as Sensory Integration Therapy.

Dr Olga Bogdashina is the parent of a young man with autism and sensory difficulties. She has worked extensively in the field of autism as a teacher, lecturer and researcher, with a particular interest in sensory-perceptual and communication problems. She has written a number of books on the subject.

The Sensory Integration Network is a UK organisation that is carrying out research to support the future diagnosis of SPD Website www.sensoryintegration.org.uk

What causes SPD?

The exact cause or causes of Sensory Processing Difficulties are not yet known and are still being identified and researched. Preliminary research suggests that SPD is often inherited. It is thought that complications during pregnancy and birth may also be a factor, and other, environmental considerations may also be involved.

Of course, as with any neurodevelopmental condition, the causes of SPD are likely to be the result of factors that are both genetic and environmental.

Current research has identified differences in the way that children who have SPD's brains are wired – having less connections in areas of the brain relating to their senses.

In Liverpool, a team of Occupational Therapists have been trained in recognising SPD in children and young people, and in developing individual Sensory Diets for them. A sensory diet is a range of strategies, exercises, approaches and treatments aimed at alleviating the effects of SPD on an individual.

There is much debate at the moment as to whether SPD should exist as a stand-alone diagnosis, or only in connection with Autism or ADHD.

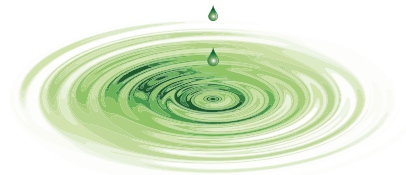
www.advancedsolutions.co.uk

Telephone: 0151 486 1788 Email: info@advancedsolutions.co.uk

Registered office: 54 St James Street, Liverpool, L1 0AB

Community Network Office: Business First Centre, 23 Goodlass Road, Speke, L24 9HJ.

INFORMATION AND RESOURCES



ADDvanced Solutions
Supporting you to find the answers

A Brief History of Sensory Processing / Integration:

What is it and where does it come from?

Lucy Jane Miller of the SPD Foundation and the Star Center in the US has carried out decades of research and work with children with sensory processing difficulties. She believes that 3% of the population has SPD with no co-occurring conditions.

It is, however, often co-morbid with ADHD, ASD and other neurodevelopmental conditions.

<http://www.ucsf.edu/news/2014/07/116196/kids-autism-and-sensory-processing-disorders-show-differences-brain-wiring>

What is Sensory Processing / Integration?

Sensory Processing' is the way in which the central nervous system receives sensory messages and generates them into responses. The majority of us are born with the capacity to receive sensory information and organise it effortlessly into appropriate behavioural and physiological responses.

At every moment throughout our lives we take in millions of pieces of information about our bodies and our environment through our senses, our central nervous system carries this information to our brains, where the information is sorted, processed and an appropriate response is generated.

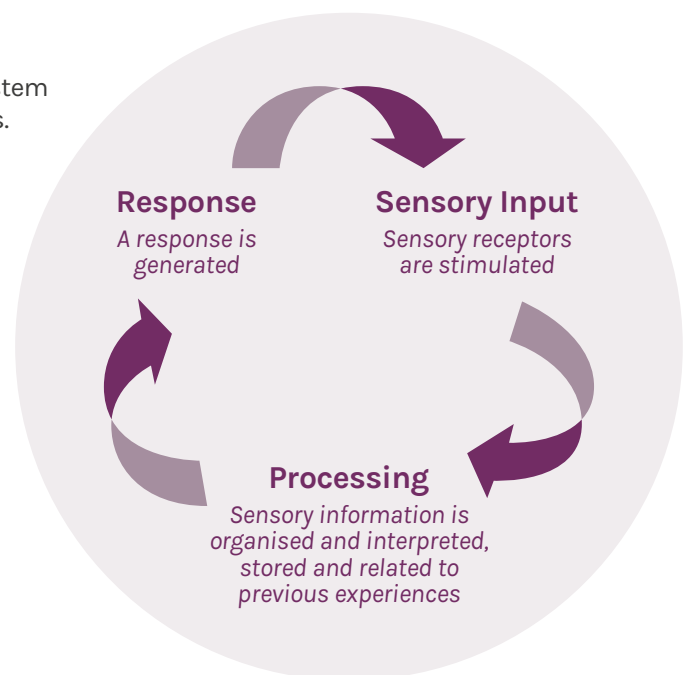
Our brain then tells our body how to respond and our central nervous system carries the messages to our muscles and joints to provide an appropriate response.

Difficulties in processing information can occur at any point during the sensory integration process:

- When taking in sensory information.
- When interpreting, or making sense of, sensory information.
- When reacting to sensory information.

Children with SPD often struggle with how to process stimulation, which can cause a wide range of symptoms for example hyper or hypo sensitivity to sound, sight and touch, poor fine motor skills and easy distractibility. Some SPD children cannot tolerate the sound of a vacuum, while others love it, some can't hold a pencil or struggle with social interaction. Furthermore, a sensation that one day is avoided may be sought out the next. The condition can be baffling for parents and has been a source of much controversy for clinicians.

Sensory Processing Disorder is a neurological disorder that is like a virtual traffic jam in the brain. The information from all eight senses is misinterpreted which causes a child (or adult) to act inappropriately.



www.advancedsolutions.co.uk

Telephone: 0151 486 1788 Email: info@advancedsolutions.co.uk

Registered office: 54 St James Street, Liverpool, L1 0AB

Community Network Office: Business First Centre, 23 Goodlass Road, Speke, L24 9HJ.