

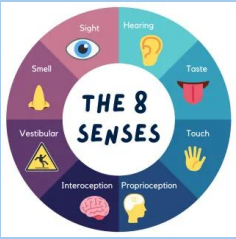
What is Sensory Processing Disorder?

Sensory Processing Disorder (SPD) is a neurological condition that affects how the brain receives and responds to sensory information (Abraham et al., 2015). According to NHS Lanarkshire (n.d.), SPD is when our brains have difficulty processing sensory input efficiently, leading to confusion, which in turn may cause feelings of overwhelm and frustration. Sources such as the STAR Institute for Sensory Processing (no date), SPD can exist on its own but often co-occurs with other conditions such as autism and attention deficit hyperactivity disorder (ADHD).

Senses

Our senses typically are made up of the five well-known senses, sight, hearing, touch, smell and taste, which each seamlessly integrates with specialised organs and neural pathways, that work together to shape our perception of reality around us (Fierce, no date).

Child Mind Institute (2025) suggests that typically, children exhibit extreme behaviours when trying to process a sensory situation. Holliday (2022) shares awareness of children experiencing sensitivity to clothing, leading to a refusal to wear certain fabrics, causing them discomfort. Alternatively, a child may present with sensitivity to touch that can provoke anxious reactions. However, when the touch is deep pressure, such as hugs, it can be soothing and provide comforting sensory input, performing sensory regulation.



(Play On Paediatric Therapy, 2023).

How does it present in children?

The way SPD presents varies from person to person, depending on how the brain interprets sensory input and how an individual reacts to different stimuli.

Hypersensitivity occurs when the brain processes minimal sensory input, causing certain sensations to feel weak or dulled (Broad Institute, 2023).

Hyposensitivity occurs when the brain processes excessive sensory input, making certain sensations feel overwhelming (Building Blocks Therapy, 2025).

Some children experience hypersensitivity to touch, sound, or movement, making sensory processing challenging (Miller, 2014). Oxford Health NHS Foundation Trust (2014) highlights the importance of distinguishing, adapting, and responding appropriately to sensory input both physically and emotionally.

How is it identified and assessed?

School

Early Years
Settings

Professionals

A centralised referral pathway serves as an important entry point for individuals experiencing developmental differences, sensory processing challenges, or other neurodevelopmental concerns. The goal is to provide early intervention and coordinated care, facilitating access to resources that promote well-being, development, and overall quality of life. (CAV Young Neurodevelopmental Service, 2025).

In the UK, Sensory Processing Disorder (SPD) is not officially recognised as a standalone medical or psychiatric condition, meaning there are no formal diagnostic labels or criteria for its identification (Cerebra, 2024). Nevertheless, Manchester University NHS Foundation Trust (2018) states that SPD is typically identified through observations and feedback from professionals, such as occupational therapists, as well as input from families. These insights help form a comprehensive assessment of the child's sensory challenges and guide the referral process for further evaluation or intervention. SPD is not always classified as a formal disability, but rather as a condition affecting how the brain processes sensory input. Sensory Line (no date) also reports that SPD has no single identified cause, but research suggests biological, genetic, and environmental factors contribute to its development. Influencing factors include heredity, premature birth, and psychosocial elements such as stress or trauma during early development.

In Wales, in supporting the diagnosis of SPD, Occupational Therapists use the Sensory Integration and Praxis Tests (SIPT) tool, however, only if they are trained in sensory integration assessment. It is a standardised assessment that helps the professional evaluate sensory processing and motor planning difficulties in children. This tool helps understand how a child perceives, organises, and responds to sensory input, which is crucial in identifying SPD (Autism and ADHD Centre, n.d).



Environmental Barriers

Woolner (2015) addresses that when school environments can vary, the environmental barriers change and therefore may cause children with SPD to experience a sense of hypersensitivity to sound, light, temperature and smells, leading to meltdowns and potentially withdrawing from the learning opportunity. British Educational Research Association (BERA) (2021) suggests that to overcome environmental barriers in education, there needs to be sustainability in leadership, student involvement, accessible learning spaces, and teacher development and stresses creating inclusive environments to support engagement and well-being.

Curricular Barriers

Sensory processing disorder can make it difficult for children in a classroom to fully engage in learning due to challenges with concentration, sensitivity to textures, and difficulty with transitions that can lead to over stimulation and can result in the need for excessive movement to help a child cope (Humber NHS Foundation Trust, 2025). The Welsh Government (2021) emphasises that without planned and structured transitions, individuals with SPD may struggle to understand expectations and upcoming changes, increasing their anxiety. Persistent anxiety can further impact a child or young person's ability to process information, engage with peers, and complete tasks, often leading to avoidance behaviours and reduced school engagement (UK Government, 2014).

Strategies

Emotional Regulation plays a supporting role with SPD by helping the child learn to manage and understand overwhelming sensory experiences and emotional responses (Delisie et al, 2023). Rotherham Doncaster and South Humber NHS Foundation Trust (2021) practicing belly breathing can enhance self-awareness, reduce stress, and improve overall emotional balance. Sensory Integration Therapy It helps children with sensory-processing difficulties. A therapy that is play-based and often incorporates equipment like swings, trampolines, and slides to engage the child's senses in a structured, supportive way. It also includes calming techniques such as deep pressure, brushing, weighted vests, and swinging, which may help reduce anxiety (Academy of Paediatrics, n.d).