

Sensory Processing & Trauma

The Calming Stairs Framework
Trauma-Informed Support for Families



Overview

Many children who have experienced trauma also struggle with sensory processing. Sounds, lights, touch, movement, and busy environments can feel overwhelming and unsafe to their nervous system.

This guide explains how trauma affects sensory regulation and why some children react strongly to everyday experiences.

Understanding this helps adults respond with empathy, patience, and practical support.

In This Guide You Will Learn:

- How trauma affects sensory processing
- Why some children feel easily overwhelmed
- How sensory overload impacts behaviour and learning
- How adults can reduce sensory stress
- Practical ways to support regulation



What Is Sensory Processing?

Sensory processing is how the brain receives and understands information from the body and environment, such as sound, touch, movement, taste, and light.

When a child has experienced trauma, their nervous system may stay on high alert. This can make normal sensory input feel too intense, confusing, or unsafe.

What This Means for Children

- Sounds may feel painfully loud
- Touch may feel uncomfortable or threatening
- Busy spaces may feel overwhelming
- Movement may feel unsafe
- Calm may be hard to maintain



How Trauma Affects Sensory Systems

Trauma trains the brain to look for danger. This keeps the body in a constant state of readiness, even when there is no real threat. Because of this, sensory systems can become over-responsive, under-responsive, or unpredictable. Children are not choosing this response – their body is trying to stay safe.

Common Signs of Sensory Stress

- Covering ears or eyes
- Avoiding touch or textures
- Becoming distressed in busy places
- Seeking constant movement
- Meltdowns after sensory overload



Sensory Processing and Emotional Control

When sensory systems are overwhelmed, the brain has less capacity for thinking, listening, and self-control.

A child who is struggling sensorially may appear angry, anxious, withdrawn, or “difficult,” when they are actually dysregulated

How This Shows Up in Daily Life

- Sudden emotional outbursts
- Refusal to enter certain spaces
- Difficulty concentrating
- Increased anxiety
- Shutdown or avoidance



How Adults Create Sensory Safety

Adults play a key role in helping children feel safe in their bodies and environments. Small adjustments can greatly reduce sensory stress and improve regulation.

Safety comes from predictable routines, calm responses, and environments that respect sensory needs.

Supportive Adult Responses

- Reduce noise and visual clutter
- Offer quiet spaces
- Prepare children for changes
- Respect sensory boundaries
- Stay calm and regulated



Practical Sensory Support

Supporting sensory regulation does not require expensive equipment. It comes from understanding the child and responding to their needs.

Consistency and connection build safety over time.

Everyday Support Strategies

- Movement breaks
- Sensory-friendly clothing
- Calm-down spaces
- Deep pressure activities
- Visual schedules



Final Thoughts

Sensory difficulties are not behavioural problems. They are signs of a nervous system working hard to feel safe. When adults understand sensory processing and trauma, children feel seen, supported, and empowered to grow.

Regulation grows through connection, safety, and patience.

