

# Sensory Processing Disorder (SPD)

## What is Sensory Processing Disorder

Sensory processing is the body's ability to take in stimulus from the environment and use this information to appropriately respond. Where young people have SPD it makes it very difficult to make sense of sensory input and formulate appropriate responses. Sometimes the processing time is extended meaning working memory is quickly overloaded leading to difficulties learning new skills or retaining new information. This is largely due to the young person's difficulty in using selective attention to filter out unneeded sensory stimulus.

SPD can be a stand alone disorder however is often found in conjunction with other disorders and difficulties such as ADHD, ACE, trauma, ASC, and FASD.

Pupils may experience sensory processing disorder in just one input mechanism or a mixture of sensory input mechanisms.

Young people can be hypersensitive, meaning they find certain smells, sights or tastes unbearable. Sensory under responsive young people can be overwhelmed by the smallest amount of triggering sensory stimulus.

Young people can be hyposensitive meaning they seek out strong sensory stimulus i.e. loud noises, spicy foods, strong smells or rough surfaces. Often young people that have hyposensitivity have high pain thresholds. Young people can be sensory under responsive meaning large amounts of sensory stimulation are needed to feel "right". Sometimes this behaviour can come across as being attention seeking or purposefully being naughty.

The eight main sensory input mechanisms are:

1. Hearing
2. Touch
3. Taste
4. Smell
5. Sight
6. Vestibular (sense of balance)
7. Interoception (an awareness of self and body functions)
8. Proprioception (an awareness of joint movement and position in space)

## Difficulties faced by young people with Sensory processing difficulties

- SPD can manifest itself in many ways. One of the most common is seemingly irrational outburst of emotion, often coming "out of the blue".
- Getting dressed, bathing and personal hygiene are often sensory triggers for young people with SPD. Getting dressed can become a daily challenge for both the young person and the family. Many clothing providers now produce sensory kind clothing with no labels or hidden seams. Some young people find wearing socks inside out particularly comforting.

- Poor attention regulation as a large percentage of cognitive load is taken with sensory processing tasks. This can make young people absent minded. Young people can also be over excitable and can become dysregulated if exposed to triggering levels of sensory stimulus.
- Young people can develop quite complex strategies to avoid overwhelming sensory stimulus.
- If a young person is overwhelmed by sensory stimulus they can completely shut down, sometimes even appearing to go to sleep.
- Some young people with sensory seeking behaviours will actively need stimulation. This can be perceived as being naughty as they will regularly be out of their seat, making noises, moving and touching items that don't belong to them.
- SPD can lead to dangerous behaviour as young people engage in sensory seeking activities i.e. riding their bike down a high at ever increasing speed.
- Young people may require constant sensory stimulus to allow them to learn. This could be through rocking, tapping, biting or chewing, repetitive movements or spinning.
- Some young people do not understand their SPD or may not yet be diagnosed with SPD. This is a difficult situation for the young person and the school. Young people often become aware of some degree of sensory difficulty as time goes on. Young people often get into trouble because of their sensory needs and would rather take the punishment or sanction administered by the school than admit their sensory needs.
- Young people can often have poor postural control meaning they may be constantly moving or slouching in their chairs in class.
- Over stimulation of the senses can lead to poor hand eye co-ordination (however young people with extremely refined interoceptive senses often have very high sporting ability).

## Supporting pupils with SPD

- Schools can choose to use one of a number of online sensory screening tools to detect behaviours associated with SPD. This information can be used to develop an appropriate sensory diet or sensory activities that young people may need.
- Schools should consider referring to an occupational therapist who will be able to diagnose the young person with SPD if they meet the criteria. The occupational therapist will be able to advise on appropriate sensory activities or adjustments the young person may need.
- Movement activities or sensory circuits can be used in class or during brain breaks to support learning. The NHS produce a vast amount of information on appropriate sensory circuit activities. Sensory circuits are often broken down into three types
  - Alerting – activities that make the head change direction quickly i.e. skipping, jumping, spinning.

- Organisation – these activities could provide a motor skill challenge i.e cup stacking, throwing, catching etc.
- Calming – This could include deep pressure, proprioceptive activities such as massage or heavy lifting.
- Hokki stools, weighted blankets, move and sit cushions or electrically stimulating clothing, chewable jewellery or fidget tools can be used to support young people. An occupational therapist will be able to advise on the best course of action.
- Movement breaks involving exercise, stretching, yoga or Pilates can be helpful.
- Some young people may benefit from sensory reducing items like sound cancelling headphones to help concentrate.
- Adults should develop a provision map of reasonable adjustments that each pupil requires. E.g. louder voice, bright visuals etc.
- Schools may be able to adjust the space around a young person work station to meet their sensory needs. This is more difficult at a wider level as schools may have both hyper and hypo sensitive pupils in the same space.