

# Need #6

## Sensory Integration and Processing

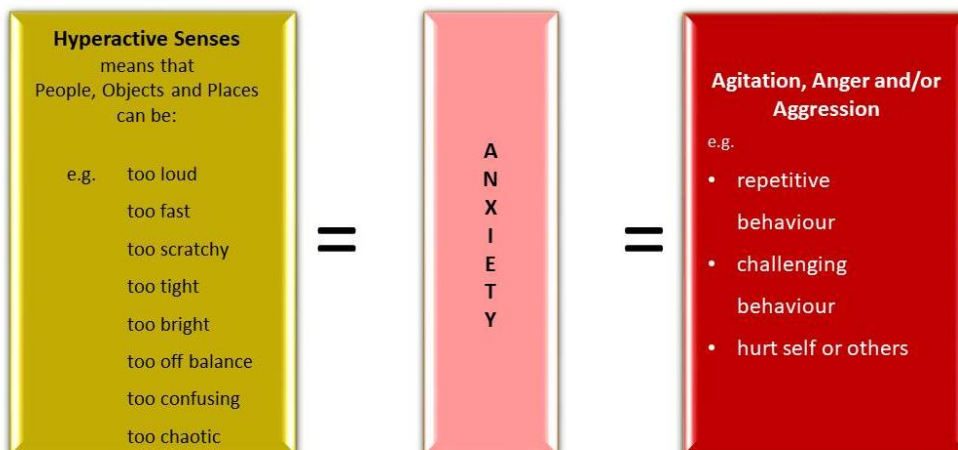
### Introduction to Sensory Integration and Processing

#### Basic Facts

Everyone is dependent on seven senses to experience life. Each person's reality is formed through sensory input: taste, smell, hearing, sight, touch, balancing and body-awareness. The latter two we also describe as vestibular (balancing) and proprioception (knowing where one's body is in space). If any of these senses are not fully developed and operational, the individuals-supported can be over-stimulated or under-stimulated. The result of receiving too intense a signal is hypersensitivity. The result of insufficient sensory signals is hyposensitivity.

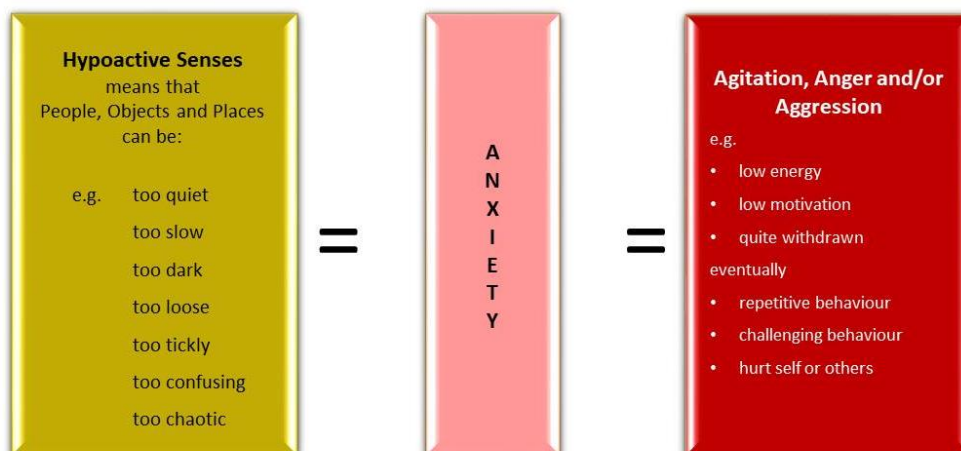
Individuals on the ASD/DD spectrum are more vulnerable than neurotypical people to hypersensitivity and hyposensitivity. In both cases individuals are experiencing a loss of sensory integration and balance. The sensory stimulation may be too much or too little or distorted. Their experience may be brain chaos – too much noise and not enough signal because of poor sensory processing. If a sensor is over or under stimulated, anxiety can result in anger or aggression. The following two charts illustrate the effects of hypersensitivity and hyposensitivity in creating anxiety that often results in challenging behaviours.

### Balancing the Sensory System Hyperactive Senses Lead to Challenging Behaviours



## Balancing the Sensory System

### Hypoactive Senses Lead to Challenging Behaviours



The research of Dr. Martha Herbert, one of Harvard Medical School's leading researchers in the field of ASD/DD, demonstrates that there are identifiable factors that are most helpful in supporting individuals who are striving to be calm, relaxed and engaged in life. One very important factor is a proper daily sensory diet. By sensory diet, we mean a combination of activities that will stimulate or reduce the sensitivity of the senses as required in a balanced way. Occupational therapists who are trained and certified in sensory integration methods and processing are the best qualified to assess and plan interventions and daily sensory diets.

Although a trained occupational therapist may be needed to prescribe a sensory diet, there are observations supporters can make that will indicate the need for a referral. Because an individual's preferred stimulating activities are often clues to the need they are trying to meet, observing and asking the right questions can be very revealing. In the Supporter's Optimal Solutions section below, there are examples of typical sensory screening questions outlined in *My Sensory Book* by Lauren Kerstein (2008), as well as examples of exercises that might be prescribed. Engaging in appropriate exercises that are recommended by a qualified occupational therapist will help the individuals become less sensory defensive or craving and therefore better able to understand what is happening; it will also increase their ability to focus.

When an individual with ASD/DD has problems with challenging behaviours, the likelihood is greater than 80% that a sensory irregularity is producing some of the individual's anxiety that leads to maladaptive behaviours. Balancing the senses reduces anxiety and helps individuals to self-regulate. As a result, they are more likely to engage in enjoyable life tasks and realize their full potential.

A very significant example of sensory dysfunction that seems to be highly treatable that is contributing to thousands of incidents of PwDD anxiety and aggression is audio irregularities (reference see below).