



Cultivating Child Development Series

Sensory Processing

What is sensory processing?

Sensory processing, previously named sensory integration, is a normal developmental process in children. Children's brain will receive, screen and process different sensory inputs during play and daily activities. These sensory inputs include visual, auditory, gustatory, olfactory, tactile, vestibular and proprioceptive ones. As children grow up, they will gradually integrate different sensory inputs and make suitable responses.

Different sensory systems have their specific function in sensory processing. For instance, tactile system is responsible for processing light touch, massage, temperature and pain stimuli on skin; vestibular system is responsible for balancing in various movements; proprioceptive system gives us information on strength and movement control during muscle and joint activities.

How to improve development of sensory processing?

Provide proper sensory stimulation in daily activities can help to promote development of sensory processing and sensori-motor skills in children.

Tactile activities:

- Encourage children to use hands to grab food like cake, chicken wing, fruit or vegetable stick after washing their hands. Do not be overly afraid of staining their hands.



- Use different materials, like playdough, rice, beans etc., for making craft; do finger or hand painting.
- Do household chores with children, like washing rice, washing vegetables and fruits, wiping table with wet towels, etc.

Vestibular activities:

- Ride on a variety of vehicles like ferry, bus, mini-bus, etc.
- Play with the facilities in playground, like slides, swings, rocking horse, etc.
- Ride on bicycle, scooter, balance-bike, etc.

Proprioceptive activities:

- Wring out own towel when washing face
- Help to push/ pull the shopping cart in market or supermarket
- Carry own school bag of appropriate weight

Most of the children will show gradual maturation of their sensory processing function through daily experiences so that they can adapt to the sensory stimulation and improve their performance in activities. In doing the above activities, parents should pay attention to the child's response. If the child does not like particular sensory activity, do not force him. Parents should encourage him to try the activity step by step and adapt gradually.

For instance, if the child rejects hairy doll, parents may accompany him to touch objects with various textures in a relaxed atmosphere; then let him touch dolls of different materials; further, let him play with doll with some hair. If the child dislikes playing swing in playground, parents may play row-a-boat with child at home, or put him on a big towel and swing him gently while singing. Let him experience movement with different rhythm and amplitude in a safe environment.



If children are suspected to have problems in sensory processing, what should parents do?

If children, starting from early childhood, continue to show discomfort or distress to one or more sensory stimuli, show over- or under- responsivity to these stimuli which seriously affect their daily living such as self-care, learning and play, parents should consider seeking professional assessment by occupational therapist. Occupational therapist will analyse the children's problem and formulate treatment plan through doing standardized tests, questionnaires and clinical observations. If the children's problems are only minor and do not affect their daily function, parents can encourage them to do appropriate activities in order to promote their development of sensory processing function.

Children with different developmental disorders such as Autism spectrum disorder or Attention-deficit and hyperactivity disorder may, as well, have sensory processing problems. Sometimes the problem may even exacerbate some of their symptoms. However, not all children with developmental disorders would have sensory processing problem, so not everyone needs sensory processing training.

References and further reading:

1. Sensational Kids: Hope and Help for Children with Sensory Processing Disorder (SPD)
Author: Lucy Jane Miller
Publisher: New York: G.P. Putnam's Sons
2. The Out-of-Sync Child: Recognizing and Coping with Sensory Processing Disorder (The Out-of-Sync Child Series)
Author: Carol Stock Kranowitz
Publisher: USA: Penguin Putnam Inc.



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