Does your child have difficulty falling asleep at night, waking up in the morning and getting ready for school? Is homework a battle, with your child unable to sit still and work? If these are common occurrences in your house, read on to discover how to implement sensory strategies that may help your child be more successful in his daily routine, as well as make your life easier.

Sensory processing is the function of the brain that processes information from our senses. The information received from the senses organizes behavior and interaction with the environment. Our senses play a crucial role in how we interact with the world around us, and we rely on them to give us information about our body and our surrounding environment. All of the sensory input that we receive is registered, processed, integrated and organized for use in producing an appropriate response to a situation. When sensations are integrated, the brain can use that foundation to function successfully in daily life.

Our brains receive the necessary input to help us function through seven different sensory systems. The first is tactile or touch input, which gives us information about pain, temperature and pressure. The second is the vestibular system, which gives us information about movement and gravity. The next system is proprioception, which tells us where our body is in space or in relation to people and objects in the environment. The olfactory system is our sense of smell; the gustatory system is our sense of taste. The last two sensory systems, visual and auditory (or sight and hearing), influence how we take in and perceive our environment and enable us to interpret and interact with our surroundings. All seven basic senses take in calming or alerting input to help modulate the sensory system.

Different types of sensory input are required for different situations. People whose sensory systems are integrated and functioning properly will automatically be able to process and organize sensory input and use this information to respond appropriately to a particular situation. They instinctively use different calming or alerting techniques depending on the requirements of a given situation. For example, if they are trying to relax before going to bed, they probably will not listen to loud or fast music, choosing instead calming or soothing tunes. Our senses are constantly receiving input from the environment, and our brains use this ongoing input to organize an appropriate response to environmental stimuli. Therefore, if our brain receives alerting auditory input, such as fast music right before we attempt to sleep, this input tells our brain that it is time to "wake up" our body.

Children and adults with typically developed sensory systems are more aware of which types of sensory input they need to function in a given environment. This ability to alert or calm one’s arousal level is an innate or automatic function that does not involve much thought. The strategies that these individuals use are common and socially accepted. For
example, the next time you are sitting in a long meeting or attending a lecture, you will notice that many people are fidgeting with something. They may be tapping their pencil on the table, twisting their hair with their finger or swinging their foot back and forth, all in an attempt to stay alert and attend to the speaker. This type of sensory input is minimal, but it is self-organizing for individuals with integrated sensory systems.

Children whose sensory systems are not integrated require much more intense sensory input, because their sensory systems fail to receive the necessary input they need to function properly. When sensory integration is compromised, the brain and body are not communicating effectively. Children with this type of sensory integration might have to excuse themselves from class every 30 minutes for a sensory or movement break. Instead of just swinging their feet to attend to what the teacher is saying, they may need to implement more intense strategies to address their needs.

Also, these children are usually not as aware of what sensory input their body needs at a given time. If they have a deficit with their proprioceptive sensory system, they may not even know where their body is in space, let alone what to do about receiving the necessary input needed to regulate their arousal level. Arousal refers to a continuum of alertness that extends from high arousal to low arousal, with the optimum arousal level being in the middle of the spectrum. It is important that teachers, clinicians and parents provide these children with self-regulation strategies in order to improve their daily functioning.

Some children prefer input to all seven sensory systems, while others may crave input from just one or two. Some children are easily aroused and may be labeled as “hyper.” In general, these are the children who benefit from calming strategies to help them slow their bodies down. Other children are more difficult to arouse and require alerting strategies to “wake their body up” throughout the day.

The following are characteristics of children with a high arousal level: always in motion; overly active or “antsy”; have difficulty sitting still and increased amount of energy; and are distractible, impulsive and loud. Char-

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Resources


American Occupational Therapy Association (AOTA) www.aota.org; 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824; 301-652-2682

Is your Child Sad, Having Trouble Sleeping, or Not Enjoying Things?

If so, he/she may suffer from major depression.

NIMH would like to talk to you about participation in an ongoing depression study for children and adolescents.

Symptoms of depression can also include:
• Hopeless thoughts • Recent weight gain or loss • More time spent alone
• Losing interest in favorite activities • Being more tired than in the past

Participation includes:
• Medical evaluations • Psychotherapy or treatment medication
• Brain imaging • Outpatient visits over 8 weeks at the NIH Clinical Center

Participants must:
• Be 9-17 years old • Be otherwise medically healthy
• Not be taking any psychiatric medications

Thorough evaluation & participation provided free of charge.
Travel reimbursement available.
For more information call: 301-496-5645 (TTY: 1-866-411-1010)
Characteristics of children with a low arousal level are:
lethargic; have difficulty focusing on class work; rest-
less or “fidgety” if seated too long; and have de-
creased motivation. It is important to identify which
of the above characteristics your child exhibits, prior
to choosing appropriate sensory strategies. Take time
to observe the types of activities in which your child
chooses to participate. Being aware of these sensory
preferences is the key to understanding the types of
sensory input that will benefit your child.

For example, if your child prefers to stand up
while he does his homework, realize that he is doing
this for a reason—to fulfill his sensory needs and
improve his attention. Children frequently develop
their own adaptations to receive the sensory input
that their body is craving. If your child enjoys rough
play, such as wrestling, he is most likely craving prop-
rioceptive (deep pressure) input. Even though his
actions may be perceived as misbehaving, this input
actually helps to calm and organize his sensory sys-
tem. The following are examples and suggestions to
use during your child’s most difficult transitions of
the day.

Strategies for Sensory Success

MORNING ROUTINE
(Alerting strategies for the
child who has difficulty waking up)

- Tactile: Wake up the child with the beating
  water droplets from a shower. You can also briskly
  rub your child’s arms and legs before he gets out of
  bed.
- Vestibular: Swing or spin.
- Proprioceptive: Stretch for a few minutes, or
  try doing 10-20 jumping jacks.
- Olfactory: Provide strong scents, such as the
  smell of brewing coffee, strongly scented toothpaste,
  a rejuvenating candle scent.
- Gustatory/Oral: Use an electric toothbrush,
  drink a glass of cold water or juice or eat a breakfast
  of chewy or crunchy foods.
- Visual: Open the shades to let in the sunlight,
  or turn on bright lights.
- Auditory: Turn on the radio or television while
  your child is getting ready for school.

AFTER SCHOOL/HOMEWORK TIME
Calming Strategies
(for a high-energy child)

- Tactile: Firmly rub lotion on arms/legs using
  slow strokes.
- Vestibular: Swing back and forth or do slow,
  rhythmic rocking.
- Proprioceptive: Do wall pushups, climb on play-
  ground equipment/trees.
- Olfactory: Use vanilla scent.
- Gustatory: Eat chewy snacks like licorice or
  chewing gum or suck on a lollipop or hard candy.
- Visual: Do homework in a space with good light-
  ing, but decrease visual distractions by covering toy/
  book shelves with a sheet or minimizing posters/wall
  hangings.
- Auditory: Listen to music with a slow, repeti-
tive beat.

ALERTING STRATEGIES
(for the less active child)

- Tactile: Give back scrathches, rubbing arms/legs
  vigorously.
- Vestibular: Do spinning and fast, unpredictable
  swinging.
- Proprioceptive: Encourage any type of sport or
  exercise that involves running/jumping.
- Olfactory: Provide citrus or peppermint scents.
- Gustatory: Offer crunchy snacks like pretzels,
  carrots, celery or apples; cold popsicles; a sour lolli-
  pop.
- Visual: Do homework in a well-lit area; place a
  brightly colored tablecloth on table/desk during
  homework time.
- Auditory: Listen to music with a fast beat or
  strong bass.

HOUSEHOLD STRATEGIES

- Encourage your child to hold any small object
  (i.e. stress ball) to increase his alertness and ability to
  concentrate. Household object: flour-filled balloon.
Learning how to incorporate sensory strategies into your child’s daily routine is essential to supporting his needs and enabling him to feel well regulated. If you suspect that your child is having great difficulty with self-regulation, and you have tried various strategies without success, consult an occupational therapist for further evaluation of your child’s sensory needs. Remember that each child has unique sensory needs, so trial-and-error may be the key to finding what works for your child. Once you have identified sensory strategies that work well for him, it is important to incorporate them into each day. A predictable and consistent routine including sensory strategies can help your child feel organized and regulated. This will enable him to be alert each morning, available during homework time and allow him to get a good night’s rest.

Sasha Fureman and Tiffany Sahd, M.S. are occupational therapists at the Katherine Thomas School at the Treatment and Learning Centers (TLC), in Rockville, Md.

- Practice writing or drawing in sand or rice.
- Use a seat cushion during seated activities, allowing slight movement to help increase attention. Household object: half-inflated beach ball or camping cushion.
- Provide a small enclosed space (i.e. fort) for your child to complete his work.
- Use colorful paper and writing utensils to increase alertness in your child.
- Make sure your child’s environment is not too visually distracting (i.e. flickering overhead light).
- Provide headphones to either block out noise/distractions or to listen to alerting/calming music.

BEDTIME ROUTINE
(Calming strategies for the child who has difficulty falling asleep)

- **Tactile**: Take a warm bath before bed.
- **Vestibular**: Rock slowly in a rocking chair.
- **Proprioceptive**: Have your child wear snug or stretchy fitting pajamas, use a heavy blanket/sleeping bag/comforter, and give firm hugs to provide deep pressure.
- **Olfactory**: Provide a lavender scented candle or pillow spray.
- **Gustatory**: Give a warm drink like hot apple cider, hot chocolate or tea.
- **Visual**: Darken the room, dim the lights, or use a slowly rotating night-light (i.e. lava lamp).
- **Auditory**: Play soft, slow music.

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