

PROPRIOCEPTION AND HEAVY WORK ACTIVITIES

What is the Proprioceptive System?

The proprioceptive system receives input from the muscles and joints about body position, weight, pressure, stretch, movement and changes in position in space.

Proprioceptive input is the performance of tasks that involves heavy resistance and input to the muscles and joints, and is essential in helping our bodies assimilate and process both movement (vestibular) and touch (tactile) information.

SIGNS OF PROPRIOCEPTIVE DYSFUNCTION:

SENSORY SEEKING BEHAVIORS	DIFFICULTY WITH GRADING OF MOVEMENT
<ul style="list-style-type: none"> -seeks out jumping, bumping and crashing activities -loves "roughhousing" and tackling/wrestling games -frequently falls on floor intentionally -would jump on trampoline for hours on end -loves pushing/pulling/dragging objects -loves to be tightly wrapped in many or weighted blankets, especially at bedtime -prefers clothes (and belts, hoods, shoe laces and other fasteners) to be as tight as possible -loves/seekes out "squishing" activities and/or bear hugs -excessive banging on/with toys and objects -frequently hits, bumps or pushes others -bites, chews or sucks on fingers or objects -grinds his/her teeth throughout the day 	<ul style="list-style-type: none"> -misjudges how much to flex and extend muscles during tasks/activities (i.e. putting arms into sleeves, reaching for items on a table, etc.) -difficulty regulating pressure when writing/drawing; may push too light to see the line or so hard that the tip of writing utensil breaks; written work is messy and he/she often rips the paper when erasing -misjudges the weight of an object, such as a glass of juice, picking it up with too much force sending it flying or with too little force and complaining of objects being too heavy -seems to do everything with too much force; i.e., walking, slamming doors, pressing things too hard, slamming objects down

WHY DO HEAVY WORK ACTIVITIES?

Primary Goals: To improve sensory processing and decrease hypersensitivity to touch and other sensory input.

Secondary Outcomes: To improve transitions, energy levels/modulation, exploration of environment, sleeping patterns and quality of interactions with others.

Activities for the Home:

1. Carry heavy items (i.e., laundry baskets, groceries, books in backpack, pillow cases with objects, etc.)
2. Chew gum, eat chewy or crunchy foods, or sip water from a water bottle with a straw while doing homework
3. Push or pull a box with toys or a few books in it (more resistance is provided if boxes are pushed/pulled across a carpeted floor)
4. Pull children or heavy items in a wagon or on a sheet/blanket
5. Propel self on tummy down on skateboard or scooter board
6. Help with household chores:
 - vacuum, sweep, mop, dust
 - move wet clothes from washer to dryer, carry laundry baskets and fold towels
 - help put groceries away
 - wash the car
 - wipe off table after dinner
 - carry buckets of water for cleaning or water plants
 - clean windows using spray bottle or squirt bottle play
 - scrub using a scrub brush
 - take out the trash
 - clean up toys
7. Help with yard work:
 - rake the grass/leaves
 - push wheelbarrow
 - shovel sand/dirt into a wheelbarrow, push and dump
 - shovel snow
 - dig dirt to plant flowers

8. Go sledding, make snow angels, build a snow fort or snowman
9. Drink thick liquids (i.e., milkshake, applesauce, pudding or Slurpee) through a straw. The size of the straw and the thickness of the liquid can vary to change the degree of resistive suck required.
10. Have pillow fights or play tug-of-war
11. Play in sandbox, mold modeling clay into objects, remove small items from putty
12. Participate in community activities (i.e., horseback riding, gymnastics, wrestling, karate, swimming)
13. Visit a neighborhood park on a regular basis for climbing and swinging
14. Utilize a child-sized shopping cart and fill with groceries
15. Build forts with blankets and furniture
16. Exercise: run around the house, push-ups against the wall, sit-ups, etc.
17. Fill up a big toy truck with heavy blocks, push with both hands to knock things down
18. Encourage hands and knees positioning during play (i.e., cars, drawing, sidewalk chalk, building, etc.)
19. Play “row, row, row your boat” with both of you sitting on the floor, pushing and pulling each other
20. Open and hold doors for people
21. Play jumping games such as hopscotch, jump rope, trampoline, and hippity hop ball
22. Play catch, bounce, roll or steam roller with a large exercise ball
23. Do wheelbarrow or animal walks: crab walk, bear walk, snack crawl

*Information from *OT ADVANCE Magazine* and www.sensory-processing-disorder.com