



Proprioceptive input (heavy work) is any active resistance placed on muscles, tendons and joints. Movements and activities that offer opportunities to actively push, pull, carry, lift, chew or suck provides proprioceptive input. It's calming to the nervous system and can benefit children who exhibit any of the following profiles or signs:

**DYSREGULATION**

**DECREASED SENSE OF BODY AWARENESS**

**SENSORY SEEKERS/ CONSTANT MOVEMENT**

**SENSORY DEFENSIVE/SENSITIVE**

**LOW REGISTRATION/LOW AROUSAL LEVEL**

**BIG EMOTIONS (WORRIED/FRUSTRATED/MAD)**

# DYSREGULATION

Dysregulation means that the nervous system is "out of wack", unbalanced, and that it either does not have enough sensory input from the environment, or has too much from the environment in order to be regulated.

Dysregulation can look different for every child, but these are some of the common signs of dysregulation that can benefit from opportunities to engage in heavy work activities.

Fast breathing

Increased heart rate

Uncontrollable  
laughter

Speaking fast

Fast/ hard movements

Excess saliva

Loud voice

Agression

Unable to follow  
instructions

Dilated pupils

Impulsive

Shrieking or high pitch yelling

Crying





## DECREASED SENSE OF BODY AWARENESS

Some children who have decreased proprioceptive processing skills are impacted in their awareness and sense of where their body is in space.

They benefit from proprioceptive (heavy work) input to their body in order to improve body awareness so they can better coordinate their body's movements through space.

These children may display the following behaviors or signs:

### ● **Clumsy**

They involuntarily bump into other people or objects as they move around, or may trip over things often.

### ● **Uncoordinated**

They have a hard time learning new dance moves or exercises even with extra demonstrations.

### ● **Push too soft**

Has very light pencil pressure or seems to have weak grip (keeps dropping things) even though their strength may be average.

### ● **Push too hard**

Seems to not know their own strength: they give hugs that are too tight, accidentally slams doors or breaks pencils/crayons from pushing too hard.



# SENSORY SEEKERS/ CONSTANT MOVEMENT

Some children are constantly moving. Even when they're sitting, some part of their body is moving, tapping, rocking or fidgeting. They have a huge sensory cup that never gets enough input. They are constantly touching objects or finding ways to get movement or sensory input, sometimes, without regard for safety.

They benefit from proprioceptive (heavy work) input to their body in order to feed their nervous system with the input they crave. Heavy work calms their nervous system so they can have more regulated movements and interactions in their environment. Heavy work combined with vestibular input can help movement seekers feel more satiated rather than becoming more dysregulated (hyper) with more passive movement.

These children may display the following behaviors or signs:

## ● Fidgeting

They constantly rock in their chair, keep getting up from their seat, tap their feet

## ● Taking risks

They may jump down from extreme heights or spin around fast in the middle of a crowded room just to get the input they need.

## ● Moving too fast

Runs at full speed, seems to have impulsive movements, seems clumsy due to fast movements.

## ● Chewing

Chews on shirts, pens, pencils, and other inedible objects



# SENSORY DEFENSIVE/SENSITIVE

Children who are over responsive/sensitive/defensive to sensory input can benefit from proprioceptive input (heavy work) prior, during or following the sensory input.

When a child's nervous system is dysregulated from a perceived noxious/aversive stimuli, their arousal level increases and can lead to a meltdown or other fight or flight responses. Proprioceptive input (heavy work) prior to a sensory trigger, added to a sensory activity, or following the sensory activity can help down-regulate or calm their nervous system so they can be more tolerant of particular input.

These children may display the following behaviors or signs:

- **Sensitive to clothing**

Complains that some fabric is too itchy or painful on their skin

- **Dislikes getting wet or messy**

May cry or avoid activities that may get them dirty or wet

- **Fear of movement**

Has a hard time tolerating swings or other movement activities

- **Sensitive to sound**

Has big reactions to loud sounds or may perceive low/average volume sounds to be loud.

- **Picky eater**

Has a strong avoidance/dislike of certain textures or tastes



## LOW REGISTRATION/LOW AROUSAL LEVEL

Some children have an under-responsive sensory system, in which they can look like they're weak (display poor posture, low endurance), but rather, they just aren't alert or well regulated. Their brains don't receive enough sensory cues from the environment that lets them know to sit up straight or focus. Heavy work input provided in a structured, goal directed, high impact and intensity can help regulate them and alert their nervous system to a just right level.

These children often require extra motivation in order to engage in heavy work because they tend to prefer more sedentary activities.

These children may display the following behaviors or signs:

- **Drapes body over people/furniture**

Seems to have a low endurance anytime they are standing or sitting, and prefers to lean on furniture or people instead of remaining upright.

- **Prefers sedentary activities**

Often avoids active movement and prefers sedentary activities, others interpret their behavior as "lazy"

- **Slow movements**

Seems to move slowly, sluggishly as if they're tired, though they had enough sleep.

- **Drifts off/Zones out**

During focused activities or conversations, seems aloof, or as if they are zoning out



# FEELING WORRIED/ FRUSTRATED/ OTHER BIG EMOTIONS

Feelings of anxiety and worry\* can go hand in hand with children who have Sensory Processing Disorder, especially those who are sensory over responsive (or sensory sensitive). What originally stems as a neurological, inherent sensitive response to a sensory trigger (e.g. loud noise, texture, etc) that occurs repeatedly can turn into a learned fear or avoidance of a particular environment. Then, those children who used to only have a sensory meltdown following a sensory trigger may have panic attacks or anxiety in anticipation of the sensory trigger.

Some children who feel worried, nervous or anxious about environments or other social scenarios may benefit from heavy work. Similarly, children who have difficulty managing frustration and anger may benefit as well. Providing deep touch and heavy work can help regulate the nervous system so they can feel calm.

These children may display the following behaviors or signs:

- **Worried about Doctor visits**
- **Nervous about first day of school**
- **Frustrated when they can't do a task**
- **Mad they lost a game**
- **Anxious about going to loud birthday party**
- **Angry when plans change**



\*For more information on mental health or anxiety in children, check Natasha Daniels, @ATparentingsurvival on instagram.

# HOW TO INTEGRATE HEAVY WORK THROUGHOUT THE DAY

7:30



make the bed

8:00



pull chairs out

8:30



wipe down tables  
& sweep

10:00



collect laundry &  
push basket

10:30



bike ride

2:30



drink  
smoothie

4:30



playdough  
laying on  
tummy

7:00



kangaroo jump  
to the bathroom

NOTE: *This is not intended to be a strict hour-by-hour schedule. This is an illustration to you how to seamlessly sneak in heavy work, proactively throughout the day without requiring fancy equipment or activities.*

7:30 AM: "Can you help me add pillows to your bed?"

8 AM: "Please pull the chairs out so we can sweep up your crumbs"

8:30 AM: "Can you help me wipe the table and sweep?"

10AM: "Please put all these clothes in the basket and push it to the back room"

10:30 AM: Out for a bike ride

2:30 PM: Drinking thick smoothie through a straw

4:30: Quiet playtime: playdough on the floor laying on tummy

7:00: "Race you to the bathroom! You hop like a kangaroo, I'll hop like a bunny!"