Alberta Health Services

Children's Rehabilitation Services

Heavy Work to Improve Proproiception



Heavy work activities (proprioceptive input*) are used for children with sensory processing difficulties, or for children who have tendencies to have trouble paying attention, seem to always be "on the go", or have difficulties staying focused on one activity. Heavy work helps to increase attention, decrease defensiveness, and adjust arousal.

* Proprioception is a form of sensory input to the muscles and joints which makes us aware of our "position in space" (i.e., where we are in relation to other objects or people). Children who have difficulty interpreting proprioceptive input have trouble grading and planning their movements and regulating their level of arousal.

If children are seeking out excessive proprioceptive input, they are looking for a way to calm and organize their nervous system. They may seem disruptive, full of excess energy, or even unsafe. These are the crashers, jumpers, movers, and shakers!

In order to help these children receive the sensory input they are looking for, we need to provide safe and appropriate activities throughout the day. These activities can be called heavy work.

Heavy work activities include using our whole body, or just parts of it, especially our mouths or hands. Heavy work for the body

includes pushing, pulling, lifting and moving. For the mouth it includes activities like blowing, sucking, and chewing. The hands use activities like squishing, pinching, and "fidgeting".

It is also important to note which activities calm your child, arouse them, or over arouse them. This will be different for each child, and will influence the types of activities your child will use on a regular basis. Finding the activities that allow them to function at home or school at a good state of arousal will be the key!

Examples of Heavy Work

- Carrying a backpack with phone books or other heavy objects (max. 10% of body weight when carrying on their back or for long periods of time)
- Pushups, sit ups, and other core exercises like "the plank"
- Pushing a heavy cart to and from the classroom (ie/tv cart, projector, books, etc.)
- Jumping especially when landing on more than just feet (ie/ crashing)
- Tug of War
- Chewing gum or other chewy, or crunchy foods
- Blowing whistles, pin wheels, or harmonicas
- Drinking a thick drink through a skinny straw (or a water bottle that you have to suck on to get the water out)
- Squishing a stress ball or similar in hands
- Pushing against a theraband with feet
- Getting "Sandwiched" between two gym mats, or under a therapy ball
- Wrestling
- Swinging on the monkey bars
- Climbing