

Disclaimer: Activities with children must always be risk assessed, including for allergies or choking. Children must always have adequate supervision. Resources and materials must always be appropriate for children's age and stage of development.

Top tips: Developing proprioception

Proprioception (pro-pri-o-ception) is a sense that your brain uses to provide information about where every part of your body is at any time.

It senses the body's actions, movements, location and orientation. It's useful to us so that we can carry out movements such as walking, or eating with cutlery, without having to think about every action involved or work out how to guide the fork to our mouths without looking.

Children with a well-developed proprioceptive sense are more likely to be confident and coordinated, better able to organise themselves and be more successful when sitting to write, for example.



These top tips will ensure that your staff are providing opportunities for children to develop their proprioceptive sense and offer strategies for children who find these activities more tricky.

1. Think about how to draw children's attention to every part of their body. For example, place playdough inside a ziplock bag for children to stand on to get sensory feedback through their feet
2. Encourage tummy time for all ages – from babies lying on their tummies to build neck and lateral movements, toddlers lying on gym balls and rocking to and fro, to pre-schoolers lying on a scooter board and pushing themselves along with their hands
3. Encourage co-massage times, with children sitting behind one another and massaging the child in front while the child behind massages them. Try 'making a pizza' on each others' backs (flatten the dough by rubbing hands in circles on the back, splat on the tomato sauce using flat handed pats on the back, add pepperoni by gently rocking knuckles on the back, sprinkle some cheese by using fingers to patter all over the back and finally chop the pizza by using the side of the hands to 'chop' on the back). As well as developing coordination, children are learning about pressure and force. Feeling the actions being done to them gives them sensory feedback for their different movements
4. Try action songs with their eyes closed, or covered (such as by pulling a woolly hat over their eyes). For example, children should be able to use their proprioceptive sense to find their head, shoulders, knees and toes with their eyes closed

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5. Find ways to encourage pounding or squeezing to develop their sense of force, as well as hand-eye coordination e.g. toys requiring hammers (tap-a-shape, whack-a-mole, etc), woodworking, wind-up torches, spray bottles etc.
6. For children who find these activities tricky, try providing daily activities to encourage proprioceptive development such as:
 - a. If they frequently trip, develop balance skills (see our myNDNA activity guide on this)
 - b. For children who slouch or seem 'floppy', develop their core strength through tummy swinging, balancing, pushing wheelbarrows and so on
 - c. Children who use too much or not enough force (such as breaking things easily or not applying enough pressure to mark making tools), try pillow fights, hitting cushions and squeazy pet toys
 - d. If they struggle with cutlery, tools and finer movements play finger games and action rhymes.
7. When children have finished sitting for a while, such as for group or story time, get them into the habit of giving themselves bear hugs – pull the knees up and into the body, wrap their arms around their knees and squeeze as hard as they can. This provides the brain with whole body feedback, a bit like resetting a computer, so that children can then release and are then ready to go to their next activity.

NDNA products to support you with these tips

- [Physical Development Top Tips](#) – factsheet
- [Movement and Physical Development](#) – factsheet
- [Physical Activity in the Early Years](#) – online course

And more resources at www.ndna.org.uk/hub/myndna