



## BUSY BODIES

**Fitness expert Renée Vincent advises on the importance of movement for toddlers and how, as parents, we can serve as their first coaches.**

Development happens dramatically in the first 1000 days. During this time a child transitions from being a newborn with only basic survival reflexes to a fully-fledged preschooler who can run, jump and climb. As a physiotherapist, I observe and analyse movement daily but nothing prepared me for the joy and wonder I have experienced watching my son grow. I found it fascinating to see from birth his innate drive to move, to repeat things over and over, to seek new experiences, to take risks and to stretch his boundaries.

In this article I'll share some key concepts about movement in the first 1000 days to help inspire you on your parenting journey. Not being an expert in child development, I have drawn on the amazing work of

Gill Connell and Cheryl McCarthy, who created two fantastic resources for parents: *A Moving Child Is a Learning Child: How the Body Teaches the Brain to Think* and their Smart Steps programme. You can access these resources at the public library and at [movingsmart.co.nz](http://movingsmart.co.nz). Although we're focussing here on the 16- to 24-month age range, Moving Smart's resources are relevant and applicable right from the start of a child's life.

### WHY IS MOVEMENT SO IMPORTANT?

As children have sensory and physical experiences in the world, nerve cells (neurons) in their brain connect. These connections form neural pathways and build foundations on which further learning occurs. In order to get the sensory input to enable the cells to connect and to develop their physical capabilities, a child needs to move. Approximately 90% of the neural pathways in the brain will be established by age five. Through neural plasticity, the brain continues to change and refine throughout life, but most growth and development happens in the early years, hence this early period is so crucial for determining whether a child will be able to reach their full potential.

How the brain learns through movement is complex, so Connell and McCarthy devised a kinetic scale to break down the key elements of movement. Their hope is that this scale will help parents understand what it is that children need in their daily 'diet' of movement and enable them to target opportunities and activities to help their children develop in the key areas.

In order for children to be ready to go to school and do things like sit on the mat, hold a pencil, recognise colours and letters, and understand instructions, they need to have had a rich diet of movement from birth and throughout their preschool years. Children need daily stimulation in all the key areas on the kinetic scale, which are:

- ☆ Senses. Our senses help us understand the world by teaching us what things are, how they work, what we like and don't like, and exemplifying differences and similarities. All of life's sights, sounds, smells, tastes and textures provide a child's brain with the information it needs to interact with the world around it. Therefore children need to experience a rich variety of sensory input and they need movement to seek this out.
- ☆ Balance. Without balance we wouldn't know which way is up. Surprisingly, our



balance system needs to be fully developed to allow us to stay still (stillness being the most advanced form of balance) while also letting us accomplish complicated physical activities. Balance helps us to concentrate and focus, and this is learned by engaging in movements like rolling, spinning and being upside down, so the next time you see your child lying upside down on the couch to watch television, don't growl – he's learning how to concentrate!

- ☆ Intuition. Our awareness of our body outline, of how much force we need to put into a movement and how we should interact with the space around us is learnt through trial and error. We learn through being cuddled and rocked initially, and then by exploring the space around us as we start to move (eg going through tunnels, carrying, pushing, pulling and navigating inclines).
- ☆ Power. For children to get to the level of having automated movements, their muscles need to develop enough strength, stamina, agility and flexibility. This development occurs through exploration and repetition of different ways to move (eg crawling, walking, running, jumping, skipping, climbing, tumbling and stretching).
- ☆ Coordination. This means being able to move two or more parts of the body in synergy. We need to learn how to move body parts from front to back, right to left, or top to bottom through the key midlines of the body – by one side mirroring the other, the sides moving independently or in the opposite manner, or by crossing our limbs over.
- ☆ Control. To be able to adapt speed, direction and force of movement, a child must build up a large database of movement and mastery of their own body (eg playground games, fine motor activities and stability).
- ☆ Language. Children use language to translate the experiences they gain through movement into concepts which relate to thinking. When a parent narrates what the child is doing (eg “You’re crawling backwards”), the child understands what crawling feels like, and that they are moving backwards.

#### HOW CAN WE HELP OUR CHILDREN REACH THEIR POTENTIAL THROUGH MOVEMENT?

One of the concerns of child-health researchers is that children are getting less and less free play. Connell and McCarthy observe that children are spending more of the day restrained in carseats, strollers, front packs, baby chairs, swings, playpens, exersaucers, walkers or Jolly Jumpers. This means that they are not getting enough time to freely move, and this can impact on their overall development. According to these authors, a preschooler's day should feature 60% free play, 25% directed free play and 15% structured play. One of the most important things we can do as parents is to not get in the way of our child's movement by containing them too much. Instead, we need to provide safe environments where they can try a variety of movements, have rich sensory experiences, stimulate their

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balance system, interact with the space around them, build strength and stamina, and practise coordination – all of which will lead to developing control.

We can also help our children by being aware of the milestones they are working towards and becoming sensitive playmates. When we observe what our child is trying to do, we can then join in with them by narrating and gently encouraging or extending them, without taking over or interrupting. It is important to keep your child safe, but it's also important to allow them to take risks while having you there for back-up.

### THE HAPPY MEDIUM

Safety is on a spectrum – from completely harmless to extreme danger. By getting to know your child through observing and playing with them often, you can allow them to play in the zone of uncertainty which lies midway between the extremes. By stepping in to gently prompt your child through an activity, or by giving just enough help to ensure they are safe (rather than stopping the activity), you are allowing your child maximum opportunity to learn.

As children grow older, movement and physical play allow them to interact with others; learn social skills; experience different emotions as they succeed, struggle or persevere with tasks; and learn to concentrate their attention. As their first coaches, parents can model being active, coach 'fair play' and positive interaction with others, and support children as they set goals and persevere towards them.

### SPECIFIC ACTIVITIES FOR DIFFERENT AGE GROUPS

Sport New Zealand (formerly SPARC) have 16 different publications in their Active Movement series which are great resources for parents looking for ways to encourage their child's movement. These can be accessed at [sportnz.org.nz](http://sportnz.org.nz), and you can also ask your local Plunket for information.

### TODDLERS AND PRESCHOOLERS

Before you know it, your little one has progressed from their first wobbly steps to confident strides, and they are experimenting with backward walking and even starting to run. By the end of the



first 1000 days, they are off exploring the world on their own two feet. The Smart Steps programme mentioned above offers literally hundreds of ideas of great activities to address all the ingredients of movement.

As well as standing, walking and running, toddlers and preschoolers need opportunities to roll, spin, swing and rock. Rolling games on the floor can start with a parent gently assisting a young toddler and move on to rolling up in a towel after the bath, or rolling down slopes for an older preschooler. You can carefully spin your toddler on an office chair or while playing in the water. Always make sure you are keeping your child's ability in mind, and make sure that they are safe – but able to challenge themselves just enough.

To get upper-body development going

you can help your child to swing from monkey bars or do the wheelbarrow (hold their feet as they walk on their hands). Climbing in and out of boxes or through obstacle courses can also be fun.

As your child grows into a preschooler, they may start to ride on running bikes and scooters, which are also great for development, but it is important to allow plenty of time for play that has a rich variety of movement and where you yourself are getting into the action just as much as the children are. Think family bike ride!

The key to getting your children moving – and keeping them moving – is to make it fun, so be prepared to get a little silly and let them take the lead. And remember: the family that moves together, grows together! •

OHbaby! fitness expert Renée Vincent is a physiotherapist at Total Mums in Auckland and mum to an energetic young son. Find her at [totalmums.co.nz](http://totalmums.co.nz). Special thanks to Gill Connell, founder of Moving Smart, for her help with this article. Read more about the importance of movement in development at [movingsmart.co.nz](http://movingsmart.co.nz).