



# Baby Sensory Play and Physical Development Part 1

## About the AUTHOR

Helen Battelley is an internationally recognised Early Years Physical Development consultant, trainer, and author known for her dynamic and motivational approach to promoting movement in early childhood.

As Chair of the National Early Years Active Start Partnership (NEYASP), Helen leads a national coalition of experts working to address structural challenges in the early years sector. Together, they champion the importance of physical development and advocate for an evidence-informed approach in policy and inspection frameworks.

In 2024, Helen served as movement consultant for the children's television series *Awesome Animals* and *Mini Me*, now airing on Sky and NOW TV.

[www.musicandmovement.org.uk](http://www.musicandmovement.org.uk)



**Characteristic of Effective Learning: Playing and Exploring. Babies begin to realise that their actions have an effect on the world, so they want to keep repeating them.** (*Development Matters, 2017*).



Providing a baby with a variety of sensory experiences is crucial for supporting early neurodevelopment. These experiences promote neuroplasticity—the brain's ability to adapt and grow—and lay the foundation for both motor and cognitive skills.

**Have you read this guidance in *Development Matters (2017)* "Encourage babies to sit on you, climb over you, and rock, bounce or sway with you"?**

Encouraging infants to engage physically with you—by sitting on your lap, climbing over you, or participating in gentle rhythmic movements such as rocking, bouncing, or swaying—supports the development of their **vestibular system**, enhances **body awareness (proprioception)**, and strengthens **core stability**. These shared movement experiences also provide opportunities for **co-regulation**, where the infant learns to interpret and mirror your emotional cues, laying the groundwork for **social and emotional development**.

Furthermore, **skin-to-skin contact** and nurturing touch stimulate the release of oxytocin, often referred to as the "bonding hormone," which has been linked to lower stress levels, improved immune function, and optimal brain development (*Manners, 2019*).

Incorporating touch and close physical interactions into daily routines is not only comforting for babies but also critical for supporting their early sensory integration, motor coordination, and emotional well-being. Through these consistent, attuned exchanges, you are helping to establish the essential building blocks for healthy physical, cognitive, and relational growth. (*DfE, 2023*)

**Take time to think about how you can physically support the youngest learners in your care?**





## Infantile Physical Development Opportunities

### 1. Natural Movement Through Babywearing or carrying

Carrying the baby in a soft wrap or sling closely against your body offers gentle, natural movement that stimulates the vestibular system, which is responsible for balance and spatial orientation. This stimulation supports the development of head control, core strength, and early coordination.

### 2. Tummy Time

Tummy time is essential for strengthening the neck, shoulder, and core muscles. These are key to achieving developmental milestones such as rolling, crawling, and sitting. Begin by placing your baby on your chest for a comforting introduction to tummy time, encouraging head lifting and visual engagement.

### 3. Back Time

Time spent lying on the back—known as “back time”—is equally important. It enables babies to move their limbs freely, helping build strength and coordination needed for rolling, reaching, and eventually crawling. It also fosters visual exploration and sensory awareness. A healthy balance of tummy and back time supports holistic physical development.

### 4. Multisensory Stimulation

Offering a range of sensory inputs—visual (high-contrast patterns, colourful toys), auditory (music, natural sounds), olfactory (familiar scents), and tactile (textured fabrics)—stimulates multiple sensory systems. This not only strengthens neural connections but also promotes emotional regulation and early cognitive skills.



### 5. Hip Movement and Crawling Readiness

Encouraging hip mobility through floor play helps prepare infants for crawling, a vital milestone for bilateral coordination, spatial awareness, and the integration of core and upper-body strength.

These sensory and physical experiences also support the integration of primitive reflexes (such as the Spinal Galant), setting the stage for more advanced movement and behavioural regulation. A rich sensory environment helps nurture the adaptive and developmental potential of the infant brain (Goddard-Blythe, 2005; Duncombe and Preedy, 2020)



## Reflective Question:

What sensory stimulation can I provide for the babies in my care to promote their physical awareness and development?



## Resources:

- Battelley, H.J (2019) What impact does integrating a motor sensory programme with reception aged children, have on teachers practice and future provision? BCU/CREC EDU7398. Unpublished
- Department for Education (2017) Development Matters. Available at: <https://www.gov.uk/government/publications/development-matters--2>
- Department for Education (2023) Early Years Child Development Training. Available at: <https://child-development-training.education.gov.uk>
- Duncombe, R., Preedy, P., Gorely, T (2020) Physical development in the early years: the impact of a daily movement programme on young children's physical development, Education 3-13.
- Goddard-Blythe, S (2005) The Well-Balanced Child. Hawthorn Press
- Manners, L (2019) The Early Years Movement Handbook. Jessica Kingsley Publishers

## Further Reading:

To further enhance your practice, explore the [Education Endowment Foundation's Evidence Store](#)—a valuable resource for accessing evidence-informed strategies that foster children's physical development and active play. This tool supports early years professionals in creating nurturing, developmentally rich environments that prioritise movement, exploration, and well-being.

## Feedback:



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For more information on supporting babies in Early Years please access [The Thames Valley and South Central Early Years Stronger Practice Hub](#) Babies' Brains and Coregulation Webinar by Dr Mona Sakr on [5th August 2025](#), Part 2 of Baby Sensory Play and Physical Development Blog by Helen Battelley or email [admin@tveysph.org](mailto:admin@tveysph.org) for more details and resources.

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