

# Importance of motor milestone check ups for infants during the COVID-19 pandemic

Silvana Echeverri, BSc MPT  
Kids Physio Group

## Background

Under normal circumstances, babies are screened at their regular check ups with their Family Physician (GP). Furthermore, parents often enroll in group-based sessions at their local Public Health Unit. During these visits, health care professionals will pick up red flags, schedule further investigations, and refer for therapy as necessary. For infants, it is important that many conditions are caught as early as possible to allow for early intervention strategies that result in favourable outcomes <sup>[1]</sup>.

At Kids Physio Group, we provide private physiotherapy services for the pediatric population. One of the services we provide is motor milestone check ups for babies. During these assessments, we assess for red flags (ie. HINE), and evaluate motor development (ie. AIMS), reflexes, neurological status, head shape and neck range of motion. We also provide early intervention and preventative strategies to help support the infant's development. If there are any red flags, referrals are made to the appropriate professionals. When no concerns are found, we provide families with education on typical motor development. Typically, the babies presenting for motor milestone assessments at Kids Physio have already been thoroughly assessed by their family doctor or other health care professional.



Photo: Baby in-person session working on seated reaching. Baby in photo is not case study baby due to no consent obtained for images.

## What changed during the COVID-19 pandemic?

During COVID-19, the public health orders and restrictions made it impossible for group sessions to take place, and many routine medical check-ups for babies were postponed, cancelled or changed to a phone call. As a result, we have seen an increase in the number of motor milestone check ups, and especially an increase in babies who had not yet been assessed thoroughly by a physician or infant development professional.

## Case Study - History

- History:
  - 6-month old baby girl with no abnormal birth history or family history. Family concerned with slow motor development as child not yet rolling.
  - Saw GP virtually for 6-month check up. No further investigations at that time, advised to monitor.
  - GP referred to Infant Development Program (IDP), but decreased access at the time due to COVID-19
  - Family self-referred to Kids Physio with concerns regarding slow motor development while on the waitlist for IDP.
- Physiotherapy Assessment findings:
  - Decreased use of upper extremities
  - Low muscle tone / generalized hypotonia
  - Decreased visual tracking
  - Not bringing hands to midline
  - Delayed motor milestones (AIMS 5th %ile)
- Referred back to GP for further investigations.
- Genetic blood testing completed, obtained diagnosis of chromosomal condition (16p13.3)

## Case Study - Intervention

- She was able to receive physiotherapy treatment during the time she was having investigations and on the waitlist for IDP
- In-person therapy was provided on a weekly basis focusing on gross motor skill development and parent education
- Hands-on facilitation strategies were found to be more effective than home exercise program or virtual sessions for this case

## Case Study - Outcomes

	Initial visit at 6 months old	Visit at 11 months old
<b>AIMS score</b>	17, 5th %ile	46, 25th %ile
<b>Motor milestone summary</b>	- Prone on elbows - No rolling - No sitting	- Crawling - Pulling to standing - Cruising emerging
<b>Tummy time tolerance</b>	<1min	30min+

## Conclusions

- Motor milestone assessments aid in determining when early intervention therapy (EIT) is required<sup>[1]</sup>, especially during a pandemic where other medical assessments or baby group classes are limited.
- EIT helps to ensure the highest positive outcomes on development and prevents future complications. <sup>[1,2]</sup> It is important to have a multitude of options for early assessment of infant development as well as EIT to ensure that any infants experiencing delays are able to access the required assessment and treatment.
- EIT is an essential service for infants with developmental concerns and should be prioritized during a pandemic. Private physiotherapist services offer an important role in expediting EIT when there is decreased access to other services.
- While there is great value in virtual therapy and home exercise programs, this child in particular responded best to hands-on facilitation strategies for achieving milestones, indicating an effort should be made to provide in-person EIT services whenever appropriate.

## References

- [1] Novak, I., Morgan, C., Adde, L., Blackman, J., Boyd, R. N., Brunstrom-Hernandez, J. & De Vries, L. S. (2017). Early, accurate diagnosis and early intervention in cerebral palsy: advances in diagnosis and treatment. *JAMA pediatrics*, 171(9), 897-907.
- [2] Goode, S., Diefendorf, M., Colgan, S. (2011) The Importance of Early Intervention for Infants and Toddlers with Disabilities and their Families. The National Early Childhood Technical Assistance Center (NECTAC). <https://ectacenter.org/~pdfs/pubs/importanceofearlyintervention.pdf>

## Contact

**E-mail:** Silvana Echeverri, BSc MPT: [silvana@kidsphysio.ca](mailto:silvana@kidsphysio.ca)  
**Address:** Cambie Kids Physio, 155 - 555 W 12th Avenue, Vancouver BC, V5Z 3X7  
**Phone:** 604.559.6405