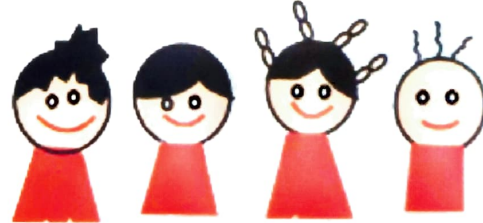
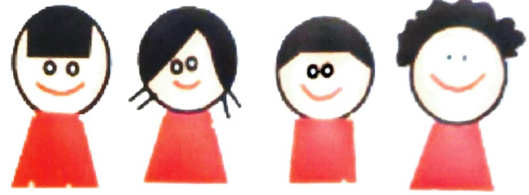




Developmental Stimulation



PARENTS / PATIENT EDUCATION GUIDE



Child Neurology Division

**Center of Excellence & Advanced Research on
Childhood Neurodevelopmental Disorders**

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www.pedneuroaiims.org

What is Developmental Stimulation?

Developmental stimulation is the key to improve the developmental outcomes in children with developmental delay, particularly, cerebral palsy and it is an effective proven therapy for the same.

Knowing about basic steps of developmental stimulation will empower parents and care-givers in the stimulation of their child's overall development.

What are the aims of Developmental stimulation?

- Developmental stimulation aims at simple activities that can be done by parents at home, which help arouse and stimulate baby's sense of sight, sound, touch, taste, and smell.
- Also, in children with developmental delay, simple activities and passive exercises help in achieving skills in the order which they appear.

What are the principles of Developmental stimulation?

Following are the principles of developmental stimulation

- Choose a stimulating and peaceful environment for the child
- Child should not be hungry or should not be immediately fed
- Avoid performing during periods of stress
- Activities should be appropriate for the developmental age of the child
- Introduce new skills as the child achieves the skills
- When performing an activity, engage with the child verbally
- Praise the child each time as he/she succeeds or tries hard



What are the components of multimodal stimulation?

Following are the various modalities of sensation which can be stimulated in the baby

- Visual stimulation
- Auditory stimulation
- Tactile stimulation
- Oromotor stimulation
- Hand eye coordination

What is visual stimulation?

- Visual stimulation refers to the various activities which help in improving baby's visual fixation and tracking.
- This is, especially, important for babies who are visually impaired.
- Child should be shown multiple, different, bright colored objects.
- Objects should be moved in all directions. Mobile torch can also be used in a dark room.



What is tactile stimulation?

Baby's palms should be opened and baby should be made to feel objects of different nature and texture.

This can help in improving baby's ability to feel and touch the objects.



What is auditory stimulation?

Various objects with different sounds can be used to produce sounds of different nature near the baby's ear.

Also baby is engaged verbally whenever performing any activity. This can help in improving baby's hearing ability.



What is oromotor stimulation?

Baby's head should be kept fixed by supporting with a roll towel and perioral area should be tapped in a gentle and repeated fashion.

Massaging of cheeks can also be done using closed fists. This helps in improving the baby's oromotor skills like chewing and swallowing ability and also helps in decreasing drooling.



How to improve hand eye coordination?

A stand should be placed with different toy items hanging from it. Child should be stimulated visually by moving and rocking those colorful items.

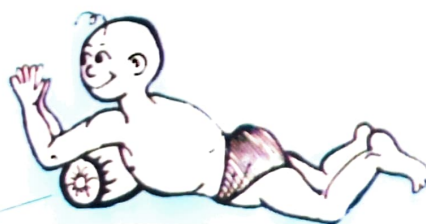
This can facilitate the hand eye coordination by making the baby touch those items with his/ her hands.



What are other modalities of developmental stimulation?

Good carrying positions

- Carrying the baby in proper position helps the baby achieve neck control and helps the hips and knees to relax



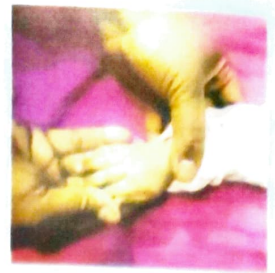
Bolster

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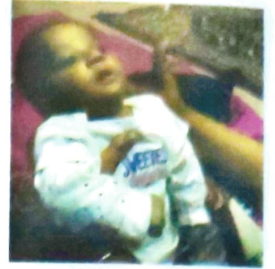
Hand opening:

Baby's hand should be held using both your hands and back of baby's hand and fingers should be alternatively stimulated as if trying to open them. This is particularly helpful if the baby has persistently closed fists.



Neck Holding

Neck holding can be aided by lifting the baby by holding on to both his forearms. If there is significant head lag, shoulders can be held and lifted similarly.



Passive stretch exercises:

Following can be done-

- Baby should be placed comfortably on a flat surface and his/her ankle and sole should be held from below with one hand and pushed gently from below and placed in upright position. Activity should be repeated again few times before alternating to the opposite side.
- In the same position, after fixing the thigh with one hand and ankle with other hand, knee should be bent at right angle and extended a few times. All these exercises should be performed on both sides.

Passive stretch exercises:

- Baby should be placed on a flat surface. Baby's hips should be held with both hands and back should be stimulated by tickling. This helps the baby in lifting the pelvis.
- All these exercises help in improving baby's tone and preventing development of contractures

Forearm weight bearing:

It can be done if baby has good neck control. Baby should be held from the back through his chest. Baby's forearm should be held and hands should be placed on the surface and baby should be helped in moving forward.



Truncal support exercises:

It can be done if baby has good neck control. Baby's trunk should be held and he should be made to sit in front of you with his back facing you.



Points to remember...

- These activities can be performed using simple things at home, but these activities should be appropriate for the developmental level of the baby.
- These activities should be performed as long as the baby enjoys, avoid overdoing
- Talking, touching, caressing and kissing matter lot
- Child should be praised every time he performs!!!





Child Neurology OPDs	Tuesday & Friday 9 a.m. onwards	Room No.4, 5, 14
Development Clinic	Monday 2 p.m. onwards	Room No.5
Neurocysticercosis Clinic	Monday 2 p.m. onwards	Room No.11
Pediatric Neurology Clinic	Wednesday 2 p.m. onwards	Room No.3, 4, 5
Autism Clinic	Thursday 9 a.m. onwards	Room No.12, 13, D
Neuromuscle Disorders Clinic	Friday 2 p.m. onwards	Room No.3, 4

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