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CHAPTER 15

Early Stimulation

ABSTRACT: This chapter to meet the needs of special children. This chapter empowers parents and families by giving information about the developmental age as well as what to do if the child is delayed. The first step is to assess your child's developmental age based on normal developmental activities. To assess your child, watch his/her activities while he is happy and playful. Key developmental milestones in all domains are listed and a red flag signs that indicates alertness when to report has been mentioned. Importance of early stimulation, parental role, newborn stimulation, touch therapy, multisensory stimulation has been discussed.

KEYWORDS Training, Early Stimulation, Key developmental mile stones, Red flag signs, Parental role, Who needs early stimulation, Newborn stimulation in NICU, Massage, Touch therapy, Rocking, walking, and swinging, Visual stimulation, Tactile Stimulation, Auditory stimulation, Sensory stimulation, Age appropriate toys

HOW TO USE THIS CHAPTER

This is a manual to meet the needs of special children. This manual empowers parents and families by giving information about the developmental age as well as what to do if the child is delayed.

The first step to use this book is to assess your child's developmental age base on normal developmental activities given in Tables 15.1. to 15.4 assess your child, watch his/her activities while he is happy and playful.

THE PROCESS AND PRINCIPLES OF TRAINING

1. Every child has certain potentials which have to be explored. Start the training with what the child knows, so that your baby has the feeling of success.

TABLE 15.1: Key developmental milestones: Gross motor

Age	Milestone
3 months	Neck holding
5 months	Rolls over
6 months	Sits in tripod fashion (sitting with own support)
8 months	Sitting without support
9 months	Stands holding on (with support)
12 months	Creeps well, walks but falls, stands without support
15 months	Walks alone, creeps upstairs
18 months	Runs, explores drawers
2 years	Walk up and down stairs (2 feet/step), jumps
3 years	Rides tricycle, alternate feet going upstairs
4 years	Hops on one foot, alternate feet moving downstairs
5 years	Skips

TABLE 15.2: Key developmental milestones: Fine motor

Age	Milestone
4 months	Bidextrous reach (reaching out for objects with both hands)
6 months	Unidextrous reach (reaching out for objects with one hand), transfers
9 months	Immature pincer grasp, probes with forefinger
12 months	Pincer grasp mature
15 months	Imitates scribbling, tower of 2 blocks
18 months	Scribbles, tower of 3 blocks
2 years	Tower of 6 blocks, vertical and circular stroke
3 years	Tower of 9 blocks, copies circle
4 years	Copies cross, bridge with blocks
5 years	Copies triangle

TABLE 15.3: Key developmental milestones: Language

Age	Milestone
1 months	Alerts to sound
3 months	Coos (musical vowel sounds)
4 months	Laugh loud
6 months	Mono syllables (ba, da, pa), ah-goo sounds
9 months	Bi syllables (mama, baba, dada)
12 months	1-2 words with meaning
18 months	8- 10 word vocabulary
2 years	2-3 word sentences, uses pronouns "I", "me", "you"
3 years	Asks questions, knows full name and gender
4 years	Says song or poem, tells stories
5 years	Asks meaning of words

2. Proceed to the skills in which the child needs to be trained.
3. Appreciate the child for even little efforts.
4. Reward is a must once the child masters the skill.
5. Involve normal children of the same mental age while training the child.
6. Anything appropriate and attractive available at home can be used as training material. A list of useful materials is given in Table 15.5.

7. Though a child can be trained anytime and every time but a well fed baby in right mood would respond better.
8. Exercise patience while dealing with a slow child and do not get disheartened by child's failure. Definite response is always observed.

Early Developmental Stimulation

By early 'infant stimulation' programs we mean early interventional therapy for babies at risk for developmental delay and periodic developmental assessment, in motor development, cognitive functioning, language or adaptive functioning.

Why it is Important in Today's World?

1. All parents want their infant to develop to their maximum potential.
2. Now a day's advanced perinatal care have improved chances of survival of newborns who would otherwise have succumbed. These survivors are identified with problems later on. Often such problems are identified quite late, may be at school age, when only some rehabilitation measures can be taken which do not necessarily bring out the best in the child.
3. Parents are adapting small family norms and every child is precious and they want a high-degree of quality in their child. Planned and highly-individualistic intervention programs after a detailed developmental assessment is the answer to this.

Aims of Early Stimulation

1. Stimulating the child through the normal developmental channels.
2. Prevention of developmental delay.
3. Prevention of asymmetries and abnormalities
 - a. To prevent wastage of muscles
 - b. To prevent fixity of joints
 - c. To prevent contractures of the joint
 - d. To decrease and prevent the tightness of the muscles and tendons
 - e. Detection of transient abnormalities and minimization of persistent abnormalities.

TABLE 15.4: Key developmental milestones: Social/Adaptive

Age	Milestone
2 months	Social smile (smile after being talked to)
3 months	Recognizes mother, anticipates feeds
6 months	Recognizes strangers/stranger anxiety
9 months	Waves "bye bye"
12 months	Comes when called, plays simple ball game
15 months	Jargon
18 months	Copies parents in task (sweeping etc)
2 years	Asks for food, drink, toilet, pulls people to show toys
3 years	Shares toys, knows full name & gender
4 years	Plays cooperatively in a group, goes to toilet alone
5 years	Helps in household tasks, dresses and undresses
Red Flag for Motor development	
Gross Motor Milestone	Concern or years
No Roll over	7-8 months
Does not Sit without support	10 months
No Creeping, crawling, cruising	12 months
No Walking	15 months
No Climbing up and down stairs	2 years
No Jumping	2.5 years
Unable to Stand on one foot- momentarily	3 years
No Hopping	4 years
Fine motor development	
Fine Motor Milestone	Age
Does not hold rattle	5 months
Does not hold an object in each hand	7 months
Does not Pincer grasp	11 months
Does not Puts in or take out objects	15 months
Does not Remove socks or gloves by self	20 months
Does not Scribbles	2 years
Does not Draw a straight line	3 years
Does not Copy circle	4 years
Does not Copy cross	5 years
Red flags for social/cognitive	
Psychosocial Milestone	Age
No social smile	3 months
Does not search for dropped object	7 months
No laughing in playful situations	8 months
No interest in peek a boo	9 months
No waving, pointing	12 months
No pretend play with a doll	18 months
No eye contact	24 months
Does not know name	3 years
Does not pick shorter of 2 lines	4 years
Does not know colors or any letters	5 years
In constant motion, does not play with other children	3-5 years
Red Flag for language development	
Red Flag for language development	Age
No vocalization	6 months
No polysyllabic babbling	12 months
No spontaneous single words	18 months
No spontaneous phrases	24 months
No spontaneous sentences	36 months
Any loss of babbling, single words/phrases	any age
Any loss of comprehension including responding to name	any age

TABLE 15.5: List of materials

Ball (Small and large)	Bell	Pencil
Pellet	Paper	Box
Peg Board (round and square)	Ring	Glass
Any moving toy	Plate	Tray
Small beads	Cup	Mirror
Rattel	Stick	Spoon
Doll	Pictures	Torch
Picture book	Pillow	Blocks

Note: Please do not leave the child alone with objects which he can swallow/inhale or hurt himself.

Importance of Early Stimulation

Early stimulation is important both for the growing brain and body. Adequate nutrition and the presence of both parents during the early years are also crucial to a child's being. All these factors contribute towards a normal healthy adult. *The stimulation the child receives depends on life at home the family structure.*

A newborn baby's life may appear to be nothing but a cycle of sleep and feedings. From this age itself, a baby's personality begins to evolve. Some babies are very lively, others are slow to react. But all need to be cuddled, spoken to gently and stimulated. Stimulation plays an important part in child development. Various easily available age appropriate toys are advised and the optimum time for stimulation is when the child is most active and playful. Stimulation should be given to normal babies as well.

Proponents of early interventional therapy are suggesting that multidisciplinary structured intervention by highly-trained interveners should be provided for infants who are at risk for neuro motor disorders as soon as possible to minimize future handicaps and successfully rehabilitate the child. *Early stimulation and early intervention can be applied remarkably to infants in order to arouse their actions and feelings ultimately giving them a normal experience of development.*

Parents of newly diagnosed children with mental retardation often refuse to accept that their child is not "normal". This leads to a delay in instituting early therapy and often results in

the child developing some set patterns, which are difficult to change. Therefore, special schools prefer to start a program by age 3 or 4 and may not accept children at ages above 6 or 7. The need therefore is to approach institutions in your vicinity at the earliest.

Providing the Right Stimulation at the Right time is the Key for Brain Development

Unlike a normal baby, a baby with brain damaged is at risk baby who requires more attention of the family members.

These goals rest on the delivery of developmentally supportive individualized care geared to enhance the strengths of each infant and family. This alliance listens to the language of the infant's behavior and uses the dialogue between the infant, family and the professional caregiver to guide care.

Early intervention improves not only medical outcome but also neurodevelopment outcome by preventing active inhibition of the central nervous system pathways due to inappropriate input, and supporting the use of modulating pathways during a highly-sensitive period of brain development.

Parental Role

1. The greatest single contributor in early stimulation is the MOTHER (the key stimulator). The real foundations regarding stimulation are building upon her mind and her love.
2. Her enthusiasm and the thrill of discovery of new skills of her baby are the basic building blocks.
3. The parental attitudes especially that of the mother has the greatest influence on the development of personality of the child during the early.
4. In terms of time spent with the baby the mother has more opportunities than the father to influence her child's psychological growth and behavior.
5. The maximum influence is exerted by the mother/mother substitute in the first three

years of life, before the child has an opportunity for play-school/pre-school experience.

6. The mother's literacy status, her own childhood experiences, adolescent motherhood, etc. are considered to be the factors that greatly influence development.
7. Parents need the skill to understand and interact with their small infant appropriately.
8. Parent participation in decision making and actual hands on experience in caring for their child in preparation for their role as full time parents is recommended as essential and is the key to successful developmental intervention.

Basic Facts All Parents Need to Know

In the first years of a baby's life, the brain is busy building its wiring system. Activity in the brain creates tiny electrical connections called synapses. The amount of stimulation the baby receives has a direct affect on how many synapses are formed. Repetitive stimulation strengthens these connections and makes them permanent, whereas young connections that don't used eventually die out.

These first years are a very important and pivotal time for a developing young brain. This intense period of brain growth and network building happens only once in a lifetime. Parents have brief but golden opportunity to help our babies stimulate the formation of brain circuitry.

Who Needs Early Stimulation?

All babies: Need stimulation to grow physically and even more for cognitive and intellectual development by arousing their feelings.

All at risk babies: It is compulsory to provide early stimulation for at risk babies in a planned and systematic manner in order to arouse their feelings, through interaction with the mother and the environment and to prevent mental subnormality setting in by anticipatory action.

At risk babies are babies who have had problems during the pre-natal, natal and post-natal period, i.e. before, at or after birth and are at risk for developing some sort of developmental

problems later on. The problems may be prematurity (born <37 weeks of gestation), low birth weight (less than 2.5 kg at birth), birth asphyxia (delayed birth cry—lack of oxygen at birth), septicaemia (infection of the blood), seizures (fits), etc. At a risk baby needs more attention from the family members with the aim of trying to prevent mental sub normality setting in by anticipatory action. For them it has to be started from the NICU (Neonatal Intensive Care Unit). There should not be overstimulation. Studies have shown that babies did better with less stimulation in NICU.

Overstimulation

1. Babies cannot comfortably handle different modes of stimulation all at once.
2. For all babies their neural system has to be mature to receive the stimulus given to them. While giving stimulation it should be essential to note that the stimulation is not beyond their capacity. There are cues to watch for the baby might
 - a. Just close his eyes and try to go to sleep.
 - b. May start to stick out his tongue as an aversion response, then yawn.
 - c. And finally, start to show agitation by his body movements; arching his back, squirming to get away, fussing, crying, etc.
3. Playing with one's baby in ways that both parent and child enjoy is the best way to stimulate his senses and thinking. How much the parent enjoys the activities *shared with the baby is the best stimulation for the child*. When the parent is emotionally involved in the play, and not feeling bored or dutiful or anxious, the infant will be more involved too.

Some Fascinating Facts that Researchers have Discovered

1. Babies have biological need and desire to learn.
2. The foundational networking of the brain's synapses is nearly complete after the rapid brain development of the first 3 years.

3. The more stimulating experiences you can give your baby means the more circuitry that is built for enhance learning in the future.
4. Babies have a definite preference for high contrast images.
5. The amount of connections in the brain can increase or decrease by 25 percent depending on the environment and stimulation.
6. Visual stimulation can produce developmental advantages including enhanced curiosity, attentiveness and concentration.
7. *Your baby's best toy is you! Interact with your baby as much as possible!*

Precautions

Things to be Remembered While Giving Stimulation

1. Monitored stimulation with an awareness of and willingness to decrease environmental hazards is necessary.
2. The stimulation provided has to be developmentally appropriate.
3. The smallest babies need the quietest of places that can be provided.
4. The quality of stimulation given is more important than the quantity of time spent.
5. Stimulation should be introduced gradually followed by developmental assessment.
6. The younger the infant, the more disorganized his neurological systems and the less likely he will be able to process stimulation, whether positive or negative.

Safety Measures to be Taken While Giving Stimulation

1. Stimulation should be given only under strict supervision.
2. Care should be taken to prevent the baby from swallowing any of the small thing used during stimulation.
3. Avoid giving paint-coated toys, it may be toxic and avoid toys with sharp edges.

Things that Can do to Stimulate Your Baby

1. Love—first of all, remember love and affection are very real needs. Your baby is never

trying to manipulate or control you; he/she simply has a biological need for your love... never deny her your tender affection. This unconditional love also creates a strong self-esteem and increased development of brain circuitry.

2. Talk to your baby often with a kind voice, a wide range of vocabulary, and a lot of expression. The so called “meaningless talk” (baby talk) of the parents/caregiver with the baby has lot of positive effects on the baby.
3. Respond to your babies’ requests without hesitation. This teaches her that she can communicate with other people and gives her a strong sense of trust and emotional stability.
4. Touch your baby. Researchers discovered that premature infants that were massaged grew faster, cried less, and were released earlier from the hospital than those who weren’t.
5. Encourage imitation. Your baby is constantly analyzing you and figuring-out ways to mimic your voice and facial expressions.
6. Let your baby experience different surroundings—go for walks, take her places, and show her the sites!
7. Let your baby explore different textures and temperatures (not too extreme, of course). Provide a safe environment for your baby to explore. She also needs time to discover things for herself.
8. Read books—even though your baby can’t follow the story, she loves the pictures and the sound of your voice.
9. Play music for your baby.
10. When you get frustrated because your baby keeps dropping objects or pours the box of cereal on the floor, remember, she is trying to figure-out how the world operates.

Newborn Stimulation in NICU

Early stimulation should start as early as possible in the NICU with a special emphasis on incorporating both the parents and medical people.

Intervention in Neonatal Intensive Care Unit—Parents

1. Emotional support.
2. Problem-solving
 - a. Practical help
 - b. Verbalization of feelings (anger, fear, guilt, etc.)
 - c. Dealing with the care and procedure.
3. Communication
4. Support from other parents and staff.

Infant has limited, individual but improving capacity for input filtering and perceptual analysis and state control. In NICU the child experiences often painful procedure, handling, noises, lack of comforting mechanisms. Infants toleration of and need for different modalities of stimulation can be estimated sequentially and it should be individualized and changed over time.

Modifications that can be Made in NICU

1. Individual lightening units can be dimmed and adjusted (especially during night).
2. Reduce the unnecessary noises from the neonatal environment that is not soothing for the newborn. Heart beat sounds, mother's voice and music can be recorded and put the tape nears to the baby with less volume.
3. Gentle massage and soft-bedding promote tactile stimulation.
4. Try to promote bonding whenever possible through kangaroo method.
5. Rocking and oscillating waterbeds can be introduced.
6. Passive exercises for the joints in order to prevent muscle spasms. Each individual has his own individual reactions and a multisensory combination all the above can be applied accordingly.

After Discharge

The Waiting Guest

Bringing the baby home from hospital is a time that the mother, the family and friends have

been waiting for. However, it is important to remember that all this attention and love can be overwhelming.

Babies Need Peace and Quiet

Babies may exhibit distress when they are being overwhelmed. It can be difficult to explain to those who wish to see the baby, after weeks and months in hospital, that the baby may become tired very quickly. However, it is important that the mother and the baby are given a chance to truly get to know each other.

Infant Stimulation Programs in NICU

Newborn Sensory Stimulation

Attempts to mimic intrauterine experience—heart heat sounds. Attempts to promote—kangaroo method (prolong lactation). Supplemental or comforting experience—suck stimulation during gavage (palada), non-nutritive suck during procedures, additional stimulation. Tactile – lambskin bedding, hammocks, massages. Auditory- mother voice, sweet music. Kinaesthetic/vestibular—rocking, oscillating waterbeds. Multisensory, combination of above. Nearly all studies show some positive short-term effects on weight gain, length of gavage, behavioral organization (apnea + bradycardia, sleep, crying) which are small, transient, and not universal.

Babies Need 'Walls' Around Them

After discharge from the nursery, babies may be fussy difficult to settle. Full-term babies in the womb spend a lot of time curled up in a ball, legs and arms tucked in. If one's child is agitated, one can put him on his tummy on one's shoulder, and help get his legs and arms tucked in, his hands to this mouth, and wrap him in a blanket.

Understand her/his 'Cues'

At home the mother should be able to recognize additional individual signs of stress or distress. Being able to recognize and respond appropriately to these cues will help the mother become closer to her baby. It will also be very useful should the baby need to go back into hospital, as she will

then have this extra knowledge about caring for her baby.

Newborn Stimulation at Home

Keep in Mind that

1. New born babies are surprisingly alert. When the tummy is full, the bottom is dry and the body rested, newborns are busy looking, listening, and learning about their new world.
2. Babies are hard-wired to learn. If parents understand the wiring a little better, they can target early play to help their newborns learn and develop. Keep the play gentle and the playtime short—just a few minutes at a time is probably plenty.
3. Subtle environments; pastel colors, a feather on a string spinning in the breeze, a fish tank to watch, curtains blowing, lying under a tree, a candle flame, these foster deep attentiveness, long curious staring and wondering, which is good for development.

The following are some ways to begin playing with a newborn. Remember though that it is easy to overstimulate a newborn.

Vision

Vision is one of the most primitive senses at birth newborns can only focus about 8 inches away, and their sight is two-dimensional. Because vision develops so quickly and so dominates the human sensory experience, it soon becomes the major means through which children learn about the people and properties of their world. The following are some ideas to stimulate the baby's developing sense of vision.

Bold Patterns with Strong Contrast

1. Newborns are attracted to the edges of patterns where light and dark meet.
2. Babies tend to look at the edges of shapes, so a baby is likely to scan one's hairline rather than gaze into one's eyes.
3. Start with simple shapes—squares, circles, and bold black and with face shapes. Paste these shapes by the changing table, or cut them out and make a "Nursery Novel", a little book made up of different patterns.

The newborn's eyes examine the edges and his brain learns to process simple visual information.

Making Faces

1. The most intriguing object of newborns is the mother's or father's face.
2. Try to catch the baby's attention and make a face one can stick about the tongue, make an 'O' with one's lips, or raise and lower one's eyebrows
 - Newborns can mimic expressions.
 - Remember to vary the expression: new babies have very short attention spans.

Moving Objects

1. Vision involves the complex process of tracking objects as they move through space.
2. Lay the baby on the lap. Take a toy, small picture, or one's hand and slowly move it in an arc from your baby's left to right, and then back again. Newborns cannot track the object as it moves across their center line—this will develop in the first few months.

Hearing

At birth the sense of hearing is considerably more advanced than vision. Although it is more advanced, hearing develops gradually.

Playing Music

1. Music stimulates more than just the auditory brain centers and connects powerfully to the baby's emotions.
2. Test how music affects the baby—play a lively, fast-paced song, then a slow, soothing song.
3. Babies have an innate response to music, which can be very useful when trying to soothe an over tired, overstimulated or colicky newborn.
4. Classical music is particularly good for the baby's developing brain; it is closely-linked with an improved ability to solve spatial problems. Playing classical strains to the newborn could help lay down important spatial reasoning pathways, as well as connections within the auditory system.

Talking and Imitations

1. Language development begins from the moment the baby first hears voices.
2. Talk to the baby often when changing him, feeding him, or walking with him. Listen carefully to his little noises and repeat them; one can have baby ‘conversation’ this way, each taking a turn.
3. Read to the baby—look for books with rhythmic, rhyming language.
4. Even tiny babies will listen attentively to the sing-song cadences of poems and nursery rhymes.

Touch

Every time a baby is touched or cuddled, it shapes his growing brain. Touch experience is essential not only for the development of touch sensitivity but for general cognitive development as well.

Baby/Body Massage

The purposive, non-repetitive contact with human hands on the baby’s skin is a soothing way to stimulate the baby’s sense of touch. Routine massaging the baby is essential for her optimum growth and development. Ideally it should be done by the mother, father or grandparents. The massager should be relaxed and unhurried and won’t be interrupted. Don’t massage the baby when he is hungry or full of stomach.

Setting

Parents to sit relaxed on the floor with baby on a towel or rubber sheet. Newborns like massaging for about 2–5 minutes and children over 2 months of age will like even more time.

Technique

Application of oil before massaging reduces friction. Gentle firm strokes can be used. Apply at least 12 strokes to each area. Do not kneed or squeeze. The stroke should not be too light or else they will cause a tickling sensation to the baby that may be discomforting.

1. Make tiny circles on the face, then smooth the baby’s forehead with both hands at the center, gently press outside as if stroking the pages of

a book. Make small circles around the baby’s mouth may comfort him during teething.

2. Rub the hands to make them warm and gently stroke the baby’s chest as if stroking the pages of a book.
3. Stroke each arm alternately from central outwards, open the palms and massage each finger separately.
4. Massage the tummy from baby’s right side to the left in a clockwise direction
5. Stroke and massage each leg and foot separately.
6. Stroke the baby’s back first back and forth across, then in long, sweeping lines from shoulders to feet. Always keep one hand on the baby.
7. Stroke the buttocks in a circular motion.
8. Gentle passive exercises can be given in the joints of both hands and legs by bending and stretching. *Make sure the baby is enjoying the stimulation. Reassure him if he cries or protests and restart gain. Continue massaging according to his wish and end up with a kiss.*

Touch Therapy—What is it?

Touch therapy is purposive, repetitive, non-medical contact with human hands on an infant’s bare skin administered with a view to stimulating nature and stimulating normal growth and development. It is recommended that mothers and fathers participate for best results. In its broadest sense it involves massage (tactile-kinaesthetic stimulation), non-nutritive sucking and skin to skin contact in any form. It is an appealing, pleasurable, culturally acceptable easily taught and understood form of interventional stimulation to the preterm infant but can be administered to term infants equally effectively and there is no cost involved.

The Basic Lessons all Parents has to Understand

1. Early experiences affect how brains are “wired”.
2. The young brain is a work-in-progress.

3. Every child is unique.
4. Children learn through relationships.
5. Care givers are only caregivers.
6. “Small talk” has big consequences.
7. Children need many kinds of stimulation.
8. Prevention is crucial.
9. The effort has “power”.
10. The cradle will “rock”.

Playing with your baby in ways that you both enjoy is the best way to stimulate her senses and thinking. How much you enjoy the activities you share is the best stimulation for your child. When you are emotionally involved you’re neither play, nor feeling bored or dutiful or anxious, your infant will be more involved too.

Rocking, Walking, and Swinging

1. Why is it that babies calm down when they are rocked or gently bounced? Closely-related to the sense of touch, the baby’s vestibular system tells the baby where his body is in space—if he is reclining, sitting upright, or moving.
2. Every time the baby is walked, rocked, or swung, the vestibular system is stimulated.
3. Infants who are comforted through vestibular stimulation show greater visual alertness than babies comforted in other ways. It is during these periods of quiet alertness that babies do their best learning, when they can most effectively absorb information about the world around them.

Baby swings are a good way to stimulate the vestibular system. If the baby is in a sling or front carrier, the natural motion provides plenty of vestibular stimulation. Sometimes the motion will help a baby to sleep, but often the baby will become quiet and watchful. This is an excellent time to talk or sing to the baby.

TRAINING PROGRAM

Infants Below Six Weeks

1. Visual stimulation.
2. Tactile stimulation.
3. Auditory stimulation.
4. Sensory stimulation.
5. Head movement.
6. Holding head.
7. Babbling.

Visual Stimulation

1. Hang brightly-colored clothes (red/orange/fluorescent), shining mobiles, color balls: black and white-striped cloths, etc. across the crib. Don’t interchange them frequently.
2. Put the baby in a well-ventilated room having good light.
3. Hang a mobile toy on right and left side of the crib, so that the child can turn his/her head on either side.
4. Talk to baby keeping your face 6–8 inches away.
5. Occasionally use a patterned sheet on child’s crib or tie bright-colored ribbon and hang over the crib.
6. Show the child his hands and feet and move them together.
7. Hold a mirror 7–8 inches away from his eyes.

Tactile Stimulation

1. Frequently change child’s position. Put the child on his sides, on his back, on his tummy, etc.
2. Put the baby in different surfaces like soft mattresses, form rubber mat, on soft clothes, on mother’s lap, etc.
3. Touch and handle in a loving gentle manner.
4. Hold the baby while feeding.
5. Puff powder using a cotton ball.
6. Pad body lotion.
7. Provide furry/or plastic play toys.

Auditory Stimulation

1. Sing to your baby some poems or nursery rhymes.
2. Make the child listen to different sounds such as squeeze toy, rattle, bell, music, high-pitched and low-pitched human sounds, etc.
3. Always humming in a soft-low voice.
4. Talk or sing while giving a wash or dressing-up.
5. Tie a bell to baby’s bed.

6. Give blocks with bells.
7. Play radio or record player but do not play music constantly.

Sensory Stimulation

1. Hold the baby in your arms and walk around the room.
2. Gently rub on head.
3. It is not always necessary to pick up the baby. Gently pat while you talk as the child lies in a crib.
4. Turn baby over and rub on back or tummy.

Head Movement

1. Use a toy or a bell to make a sound in front of the child.
2. Sit behind the child and make a sound.
3. Be sure that other auditory distracters such as radio are not present.
4. If the child responds to toy by turning his head, give a toy for few seconds as a reward.

Holding Head

1. Use a pillow, under the child's shoulder to hold head.
2. Place a colorful toy in front, so that the child holds head up to see it.
3. Place the child on belly and help support the head with your hand.
4. Gradually reduce the support you give.
5. Talk to him only when the head is being supported.

Babbling

1. When child babbles, Ma, Pa, Ba, repeat the sound.
2. Use musical toys of basic sounds.
3. Sing a song or play music while playing.
4. Talk to him while feeding and bathing.
5. Repeat sounds a number of times.

Activities

1. Always try to maintain eye-to-eye contact while communicating with the child.
2. Cuddle the baby closely, making it a joyous interaction with the mother and the baby.
3. Talk and sing to baby when you bather him, dress hi, and when you feed or rock him.

4. Encourage and help the baby to turn his head towards the source of sound and sights.

Infants Above Six Weeks

Motor Development

1. Reaching for object.
2. Rolling.
3. Sitting.
4. Crawling.
5. Standing.
6. Walking and running.
7. Eye, hand coordination.
8. Jumping.
9. Imitate a circle.
10. Walking upstairs and downstairs.

Reaching for Objects

1. Place the child on belly on the floor and start speaking to divert his attention.
2. Suspend a toy from ceiling.
3. Play with colorful toys in front of baby, e.g. blocks, ball, rattle.
4. Demonstrate these activities so that the child gets the idea of reaching.
5. Help the child to reach and grasp the object.

Rolling

1. Place the child on back in the crib or floor. Talk to him ring the bell to get his attention.
2. Physically guide the child in rolling from back to side.
3. Place a musical toy close to side of the head so that the child will roll over.
4. Help to roll back and forth to imitate movement.

Sitting

1. Grasp the child's hand and help to sit up.
2. Place pillow around the child and keep pillow high on sides/put the child in basket so that he can get support.
3. Place the child between your legs and place the arms on your legs for support.
4. Gradually reduce the support by giving a toy in hand.
5. Once the child sits in any corner give a toy in hand and keep talking to him to maintain

sitting during a variety of daily activities (bathing, eating, dressing and playing).

Crawling

1. Place the child on your extended legs so that his tummy is touching your legs.
2. Help to move by moving the child's arms in a swimming fashion.
3. Place the child on the floor and move one of the child's arms forward.
4. Keep a colorful toy in front of him and pull him towards you.
5. Gradually increase the distance between the toy and the child.

Standing

1. Place a toy on a low chair, table or bed.
2. Physically pull the child up and place his hands on edge.
3. Let the child put one foot flat on floor and weight on one knee.
4. Show a toy above child's head so that he is able to pull himself.

Walking and Running

1. Support the child's shoulders from behind and help him to alternate his feet.
2. Hold both hands of the child's and encourage him to walk forward.
3. Encourage the child to push walker.
4. Hold a toy and ask him to come to you. Make the child stand against wall. Be ready to catch him.
5. Encourage the child to walk independently and run.

Eye-Hand Coordination

1. Make a peg board out of shoes box.
2. Help him to put in and out, encourage him to do it independently.
3. Make a form board with three holes, circle, square and triangle.
4. Help him to fix the pieces.

Jumping

1. Stand in front of child and hold both his hands.
2. Bend his knees and lift his hands up.
3. Reward him and verbalize jump.

4. Use bed as base of jumping.
5. Encourage him to jump a number of times.

Imitate Circle, Square and Triangle

1. Show a child how to make a circle.
2. Take the child's hand and guide him in making the circular movements.
3. Help the child to trace the square and triangle.
4. Use newspaper to draw and trace all the figures in large size and gradually reduce the size.

Walk Upstairs and Downstairs

1. Hold the child's, begin with the two bottom steps.
2. Walk up the step and gently pull child's one hand placing his other hand on railing and encourage him to step up.
3. Move his legs up and down in a marching fashion.
4. Place one leg on a step, your hand behind his knee and move his leg up to the other step.
5. Walk downstairs backwards in order to avoid fall, encourage him to move one foot down.

ADAPTIVE DEVELOPMENT

1. Places the object.
2. Performs simple gestures.
3. Points to pictures.
4. Draws vertical and horizontal line.
5. Completes three forms.
6. Matches colours.
7. Completes puzzles (six pieces).
8. Block building.
9. Draws a man.
10. Points to missing part of picture.
11. Names days of the week.
12. Counts 1 to 10.

Placing the Object

1. Show the child how to take out the object from a cup.
2. Physically guide his hand to help him to remove the object and say "out".
3. Physically help child place object in cup and say "in".

4. Ask the child to put the object in the cup and out of it. Encourage him to do it several times.
5. Reward him for each step.

Perform Simple Gestures

1. Show the child how to do simple gestures, e.g. clap hands, pat a cake, peek a boo.
2. Take the child in your lap. Put your arms around him and help him to clasp his hands.
3. Encourage child to imitate gestures such as:
 - i. Pretend to drink from a cup
 - ii. Hold a block in each hand and hit them together
 - iii. Make a coughing sound or say bye bye.

Points to Pictures

1. Show a family photograph or children's book with large picture of common objects.
2. Name a picture and guide him to point it.
3. Ask the child where is the ball.
4. Praise and say that is the ball.
5. Present two pictures at a time and ask him to point him to pint to one.

Draw a Vertical and Horizontal Line

1. Take paper to a wall. Let your child watch you while you draw a vertical line.
2. Hold his hand while he uses chalk, crayons, colored pencils or magic slate and help him to draw a line.
3. Let him imitate without support.
4. Give verbal instructions to draw vertical and horizontal lines.
5. Similarly teach him to draw a circle, square and triangle.

Complete Three-form Board

1. Show the child how to remove these three shapes from the board.
2. Physically guide to put circle, square and triangle in the form board.
3. Encourage him to fix the circle.
4. Let your child watch you while you put the shapes in the form board and ask him to do that.

Matches Colors

1. Begin using two colors, red and yellow.
2. Mix colored circles, pegs and beads.
3. Make tow row one red and one yellow in front of child.
4. Help him match circles, colored pegs and beads.
5. Reward correct match with praise.

Complete Puzzles (Six Pieces)

1. Give some knobs on puzzle pieces for easy handling.
2. Take out one or two puzzle pieces to begin with.
3. Make the child feel the shape of a puzzle piece.
4. Guide the child's hand to help him fit the piece in the hole. Similarly remove the pieces.
5. Tell him to look at the puzzle to find out where it goes.

Block Building

1. Show the child what to do. Place two blocks side by side and third on the top of the other two.
2. Give him one block at a time showing him where to place it.
3. Withdraw help and leave the bridge to copy.
4. Encourage him to make train of cubes independently.
5. Teach him to build pyramid of 10 blocks.

Draw a Man

1. Draw a man by using circles and lines.
2. Make child draw each line after you make one.
3. Use simple spoken directions.
4. Talk about body parts as child draws.
5. Give him clues for incomplete body part.

Points to Missing Part of Picture

1. Make the child find the missing parts of the picture.

2. Begin by using familiar pictures like horse without head and house without roof.
 3. Show him the complete picture; let the child compare the tow to find the missing part.
 4. Encourage him to do it without the complete picture.
 5. Reward him for the correct part of the picture.
- c. Various vowel sounds
 - d. Sounds like Ha, Aa, Ba, Da.
 2. Say it with him and reward the child with praise and clap hands.
 3. Say each one several times and allow the child to repeat.
 4. Smile and make the activity enjoyable.
 5. Pick up, hug while doing the activity.

Name Days of the Week

1. Hang a calendar for the child in his room.
2. Draw a picture on various days on calendar.
3. Say the names of the days to the child.
4. Make him repeat them back to you.
5. Make him familiar with the order of the days.

Count One to Ten

1. Show the numeral 1 card.
2. Tell the child this shows one.
3. Ask the child to point to the dot on it and say one.
4. Then put one pebble on the card. Continue in the same way up to card 5.
5. When the child can recognise the numerals 1 to 5 and count the corresponding dot and pebbles accurately, move on to the card 6 to 10.

LANGUAGE DEVELOPMENT

1. Repeats sounds made by others.
2. Carries out simple directions.
3. Answers simple questions with non-verbal response.
4. Uses a single word meaning.
5. Says 5 different words.
6. Follows 3-step directions.
7. Points to 3 body parts.
8. Uses simple sentences.
9. Answers simple questions.
10. Tells sex and name.

Repeats Sound Made by Others

1. Choose the sounds
 - a. Spontaneously made
 - b. Sound that goes with physical activity and game

Carries-out Simple Directions

1. Give the child your direction in words.
2. Show him what you mean.
3. Repeat the directions and show him again.
4. Activities might include
 - a. "Give me your hand"
 - b. "Throw the ball"
 - c. "Close the door"
5. Praise the child on performance of activity.

Answers Simple Questions with Non-verbal Response

1. Teach the body parts by touching and pointing to the child.
2. Take the child's hand and, ask where is his nose.
3. Place his hand or finger on his nose.
4. "Here is your nose", "Very good".
5. Reduce the help given as the child learns.

Use a Single Meaningful Word

1. Name two to three familiar objects (mild, water, toy).
2. Ask the child to name them when you point to them.
3. Hide objects in the room and ask to find them and name the object.
4. Repeat this activity several times.
5. Praise and reward the child when it is done independently.

Say Five Different Words

1. Name different objects which child often sees.
2. Encourage the child to use the words.
3. When the child says "Pa" you say; "Yes" that is Papa.

- Child may point and say Pa you say “Yes” Pap is there.
- The child may point to the object and say Pa you say “Yes” that is Papa’s shoe.
- Encourage the child to use the words again and again.
- Use stories and pictures and ask questions on various points.

Tells Sex and Name

- Give toy and clothes to the child to play and tell the sex.
- Tell the child here is a boy like daddy, girl like mama.
- Say things like you are a nice boy or a pretty girl.
- Ask child about his sex while you give a candy/toy to him.
- Keep on asking the same.

Follow Three-step Directions

- Begin with direction using one object, e.g. get your shoes, sit down and put on.
- Ask the child to repeat the direction before he starts.
- Gradually increase the difficulty.
- Add activities to the request.
- Praise the child each time when the directions are followed.

Points to Three Body Parts

- Begin by showing mothers’ nose, similarly with the child’s nose.
- Ask where is the Doll’s nose?
- What is that pointing at the nose?
- If the child is having difficulty, give him clue that involves action of the body part.
- Teach new body parts.

Use Simple Sentences

- Hold up the familiar objects?
- Ask the child what is this?
- Give him time to answer?
- If the child does answer, answer for him and ask to repeat.
- Continue until the child begins to use simple sentences.

Answer Simple Questions

- During daily activities ask the child questions such as how to open the door, how to go to the toilet.
- If child does not answer, answer for him.
- Child should answer in two to four words.
- Gradually increase difficulty of questions.

PERSONAL AND SOCIAL DEVELOPMENT

- Watches persons.
- Smiles.
- Reaches to his own name.
- Drinks from cup.
- Brushes teeth.
- Hold out arms and legs while being dressed.
- Sits on potty.
- Pulls off socks and takes off trousers.

Watches Persons

- Make the child sit so that he is able to view the surroundings.
- Walk across his line of vision and see if the child follows your movement.
- Talk to child or use noises which stimulates looking behavior.
- Gradually move across and try to maintain eye contact.
- Keep praising the child.

Smiles

- While feeding, playing, changing, talk softly and smile off.
- Gently tickle the stomach to evoke a smile.
- While picking the child after nap or going to some place always give a smile to the child.

4. Physically prompt the child by gently taping his nose or lips.
5. When the child smiles respond back by smile.
4. Encourage him to do it regularly.
5. Reward him for good brushing.

Reaches for a Familiar Person

1. Hold your arms out to the child and ask him if he wants to come to you.
2. Encourage all the family members to do the same.
3. Talk to the child and offer a toy.
4. When he start to reach for it give a smile.

Claps Hands and Says Ta Ta

1. Take child's hand and clap them.
2. "Say pat a cake".
3. Encourage the child to imitate you.
4. Encourage the child to imitate clapping sequence independently.
5. Take the child's hand, wave and say "Ta Ta".

Responds to His Own Name

1. Say the child's name often.
2. Use a puppet to talk to the child.
3. Place the child in front of the mirror.
4. Have one person call the child's name.
5. Reward the child for turning in your direction.

Drink from Cup

1. Use one cup with handle.
2. Help the child to bring the cup towards his mouth.
3. Encourage him to take a drink.
4. Praise the child as he improves.
5. Use a regular plastic cup—when the child becomes perfect.

Brushes Teeth

1. When you brush your teeth take the child with you.
2. Help him to brush his teeth at the same time.
3. Use child size tooth—brush and hold it under the water.

Hold-out Arms and Legs While Being Dressed

1. Use a big size dress and begin with as short sleeved.
2. Help the child to put one arm reach behind with other arm.
3. Gradually reduce the support.

Sits on Potty

1. Allow the child to watch you use the toilet.
2. Watch the time carefully, when the child may be ready to do.
3. Place the child on the potty.
4. Do not make the child sit for linger time.
5. Use the same words each time such as potty. Encourage and praise if the child is successful.

Pulls-off Socks and Takes-off Trousers

1. Show the child how to pull off socks and take out trousers.
2. Help the child as he tries to pull off socks and take off trousers.
3. Help him whenever he has difficulty.
4. Gradually reduce the support as he becomes perfect.
5. Praise him whenever he does correctly.

After going through and using these manual parents must have realized that the stimulation exercises are simple and flexible. More so parents can use their own modifications for the same purpose and no special materials are required. The aim is to take the child from his/her level to the maximum level which can be achieved. Patience and repetition of the tasks is the key and success will always bring smile to you and your baby.

Auditory Stimulation

Two-to-Four Months

Sound producing toys are suitable for this age. Noisy toys/squeaky rubber toys etc. can be given.

Parents should spend more time with child; keep on talking with the child, pointing out the name of objects shown will help the child to use more words when he starts talking

Four-to-Six Months

Babies will turn their head towards the source of sound at this age. Shake a bell or a squeaky toy over his head. Then slowly shake it near to the side of his head. Encourage him to turn his head and find the sound. Repeat on the other side also.

Visual Stimulation

Two-to-Four Months

Hang brightly-colored objects/shiny mobiles about 12–15 inches above the crib, this will enable the child to watch it constantly and slowly starts to babble.

- Maintain eye contact while talking with the child
- Show brightly-colored clothes when the child is awake.

TOYS TO ENCOURAGE STIMULATION

1. In the first few years babies learn to use his hands and develop eye-hand coordination by simply watching and moving his own hands and fingers. Good and age-appropriate toys will help practice and perfect these newly acquired skills.
2. When you are making or buying toy to encourage your child to learn things, follow the BBC code, i.e. Big, Bright and Colorful.
3. Big toys are easier for young babies to see. Older children can use magnification of small objects.
4. Bright means presenting toys and play materials in the best possible light.
5. Colorful means choosing toys with good strong contrasting colors and making sure they do not merge into the background. Putting a nappy or cot sheet over a heavily patterned carpet may be useful. Some children find shiny surfaces attractive, others prefer mat colors. Children usually show by their reaction, which they prefer and will not be bothered with toy if they do not find it interesting.

Points to Remember During the Selection of Toys

1. Toy should be age-appropriate.
2. Toys should be safe—no sharp points and cutting-edges.
3. Colored toys—the paint should be non-toxic.
4. Components of the toy should not be so small that the baby is able to push them into the mouth, nose and ears.
5. The child's interest, needs and abilities should be considered.
6. Washable and sturdy enough to withstand rough handling.

VISION AND HEARING STIMULATION IN EARLY INFANCY

Instruct the parents to provide stimulation for their children that would otherwise have been missed, by giving emotional support, sensory input and by play methods. Encourage the mothers to show love, to handle and talk to their children more, to help the children to acquire independence all of which help to improve language and communication later on.

Vision

Vision is the Primary Data Gathering System of the Human Organism

Of all the senses, vision provides the most information to the brain. It is both a near and distance sense, and can integrate the information it gathers. Only vision can perceive shape, size, color, distance and spatial location all in one

TABLE 15.6: Age-appropriate toys

Purpose and function of Toy	Toys suggested
First 3 months	
Bright objects to look at	Colorful toys to be hung across baby's crib/cot, Soft sound producing toys can also be used.
3 to 6 months	
Sound making toys, Toys to hold, suck and chew	Plastic rattle, music producing toys. Small soft washable toys made of rubber or rag material, such as small animals, balls, dolls, big red rings and teething rings.
7 to 12 months	
Toys and other articles to handle roughly, make noise with, bang, and drop. Toys to pull apart join, put things into and take out.	Squeezing toys, drums, household pot and pans, sponge blocks, piano, rubber and rag material. Sets of plastic glasses of different size, ring sets; empty cardboard containers, bouncing balls, rocking toys.
12 to 15 months	
Toys to build small towers. Toys to push along. Toys to call his own	Simple building boxes, toddle truck, big wheeled truck, bus and other such toys, baby crockery set, baby telephone, picture book, crayon and paper.
15 months to 2 years	
Toys to push and pull. Toys to ride in. Toys to take apart and put together	Push cart with big wheels, A wooden animal toy on wheels with string to pull on. Simple take apart toys and toys with detachable and refittable parts.

glance. The other senses together cannot provide equal information to the brain.

Vision is the Feedback System for All Other Developing Systems in the Young Child

An infants' early development depends on vision, since all the other systems require visual feedback for practice and refinement. When the visual system is impaired or dysfunctional, the other systems do not have a monitoring tool to assure their smooth and timely development.

Signs and Symptoms Suggestive of Visual Abnormalities

1. Lack of eye fixation.
2. Not preferring lighted area.
3. Wandering eye balls.
4. White spot in the pupil.
5. Strong family history of visual impairment
6. Persisting squint.
7. Holding objects very close to the face.

Early Detection of Visual Abnormalities in Young Children

1. Check for eye fixation—note whether the baby is watching when one is looking at his face and when one talks or plays with him.
2. Hold the baby in such way that the baby faces the window, and then slowly turn him towards the darkest side of the room.
3. Observe whether the baby is turning his head towards the window.
4. Observe whether the baby's eyeball wanders from one corner of the eye to the other while awake (after 6 weeks).
5. Check for cataract (a white spot seen in the pupil).
6. Note whether the baby has a strong family history of visual problems.
7. Be cautious if a squint persists even after 6 months of age.
8. Holding objects very close to the face while examining or looking at something is a warning sign.

Goals of Stimulation for Visually Impaired

1. Motivate the child to make the best use of the vision.
2. Integral part of play and therapy.
3. Help to identify those situations when the use of another sense would be efficient.
4. Pairing with other senses (touch, hearing, smell) make better sense of visual image.

Visual Stimulation—Why Early?

1. Visual impairment affects the development of the brain. If vision is not dominant as the avenue of information, it does not get its normal representation in the brain cortex.
2. Visual stimulation seems to be more useful during infancy and very early childhood.
3. It may be more helpful to children with certain cases of blindness than for other children.
4. Pairing the visual stimulation with other experiences is more useful. Incorporation of all the senses (touch, hearing, and smell) into visual experiences helps the child make better sense of visual images.
5. The ultimate goal of visual stimulation is to motivate the child to make the best use of the vision he has and to identify those situations when the use of another sense would be more efficient.

By early stimulation of vision it means use of strong visual stimuli to make an infant or child aware of vision, since these children usually have very limited visual capabilities and no visually guided functions. Tactile and visual stimuli can be used simultaneously. If the infant gets strong visual stimuli can be used simultaneously. If the infant gets strong visual input and at the same time tactile information is used to explore the surface qualities and form of an object. Picture perception is one of the most difficult concepts to develop in visually impaired child.

Visual stimulation is an integral part of play and therapy situation. The concept of the stimulation is the same as for normally sighted children but the visual information is clearer

with a good contrast so that it can be used for eye-hand coordination, eye-foot coordination, and development of spatial relationships. In these training situations the visually impaired infants often use tactile information for quite some time to explore the surface qualities and form of objects. Picture perception is one of the most difficult concepts to develop in a visually impaired child.

In some visually-guided motor functions the child may not reach the usual milestones so these motor functions need special training. Visual stimulation and training are integrated in the child's early stimulation program.

Stimulation Techniques for Visual Impairment

1. Explore and utilize other senses.
2. Encourage exploration.
3. Body image (Promote the concept).
4. Maximum assistance for gross motor development.
5. Proper concept development.
6. Object permanence.

All children need to be encouraged to use their eyes and to think about what they see. For those who find it difficult to concentrate, or those who appear to take little interest in their environment, a special effort must be made to try to provide them with things they will really want to look at, as interesting things they need time to explore.

Many a child has natural curiosity a delight in the ridiculous and intense concentration when his attention has really been captured. When he is shown a pretty thing which may be precious or old, has been taken to visit an interesting place, or simply has his attention drawn to a spectacular sunset, he may be building associations and memories which might influence his life more than can perhaps be imagined.

Arrange a room that is bright, stimulating, and colorful—full of toys and materials that are both interesting and attention grabbing. Some decorative items for a room are helpful for increasing visual awareness.

Intervention to Promote Eye Focus and Following

Place the child supine. Help him to keep his head in the midline. Hold both his shoulders forward. Place shiny, colorful, noisemaking toys or a torch light close to the child's eye. The mother can attract his attention by face to face singing or talking.

Senses as Learning Tool

1. In a visually-impaired child other senses are potentially at a maximum (touch, taste, smell, and hearing). So, provision of an environment where the child can explore things and utilize his existing good senses is very important.
2. Provide opportunities for the child to grasp information by touching with his hands and skin; hear a lot using his ears, to smell using his nose and to taste with his tongue.
3. A blind child needs to be taught a lot. A child with partial visual impairment can perceive a whole lot of unclear images, but in a child with complete visual impairment the stimulation is very difficult.
4. The child learns about his world through talking and touching mainly. 'What is the object made of? What is it for? How is it....? What happens if ..?' he learns through hearing information related to it.
5. Shake the baby's arms and legs and keep repeating the name of the parts you touch.
6. Music boxes or wind up toys coming toward the child from a distance may help perk-up attention to an approaching object. Balls with electronic sounds that don't roll very far are available. A ball with a sound that continues to play is very helpful for seek and fine.
7. A toy that rolls away should have a sound so the child can remember where it went.
8. Toy with music and sounds activated by pushing a button are useful.
9. Allow the baby finger play with dough.
10. Place the baby on different surfaces, hold him frequently, lay him on the ground over a mat all these help.
11. Hang small bells around the crib.
12. Textured balls, large push and bump toys like cars, trucks and walking push toys can be made use of.
13. All young children with some vision enjoy mirror play, but watch out for glare. Use them in diffused lighting.
14. Provide him with opportunities for hearing other people's speech also. Put the baby on his mother's lap while she is communicating with others.
15. Spread sound making toys in the child-proof room where he is playing.
16. Provide the child with the sensation of different textures. Make the child walk barefoot on grass, on gravel, on sand, on the road, etc.

Encouraging Exploration

1. Gently guide the baby's hand towards the sound of a toy and keep decreasing the amount of help offered.
2. Use toys that light up or objects with reflective surfaces if light perception is present.
3. Change the position of the baby frequently, put him on his back, turn him onto his sides, on his tummy, etc.
4. Don't put baby always in the crib.
5. Hung strings of Christmas light in baby's room to encourage visual attention.
6. Hang noisy toys over the crib and guide his hands towards it. Assist him to reach for and then grasp it.
7. Ask the mother to keep the child at her side and to keep on talking to him as she does her work.
8. Attach different textures on the lower portion of walls to encourage the child to explore the walls.
9. Make the child sit on rocking horse or rocking chair.

Body Image

1. Draw the child's attention to different body parts. Place a small pillow over his legs and encourage him to knock it off.
2. Place an oversized plastic ring on the baby's wrist or ankles and encourage him to remove the ring.
3. Guide the baby's hand to each part of the body as related nursery rhymes are sung.

Object Permanence

1. Help the baby hold on to the spoon while feeding, this will help him to learn to hold it and feed by himself later.
2. Guide the baby's hand to a hidden toy or tap the toy on the floor to give him a clue.
3. Peek a boo games, pulling scarf off a hidden musical toy, etc. can be made fun.
4. Encourage independent mobility at home.

HEARING

Early Stimulation for Hearing Impairment

Without adequate sound stimulation in infancy and early childhood, speech and language development will be compromised. Later treatment may never fully compensate for this early deprivation. The critical period for language and speech development is the first 2 years of life.

Techniques

1. Encourage him to produce new sound by imitation or by continuous repetition of words.
2. Maintain face-to-face conversation while talking him.
3. The child could sing thorough mouthful of cereal 'mum-mum-mum' and think that he is at least saying Mom. The mother could reward him with a smile and cuddles.
4. Make a variety of sound in the environment patting plastic chairs, banging a wooden table, banging the rattle across the wall,

banging a cup and spoon together. The child will gradually begin to associate certain sounds with a sequence of events.

5. The ding-dong of the doorbell, the sound of the bath water running noises of family pets-such sounds will contribute to the baby's idea of home and security.
6. Provide plenty of noisemakers for the baby to shake, bang, kick, hit or drop.
7. Have a code sound for a certain activity, e.g. using a little rattle to announce mealtime, or splashing a hand in the water before bathing.
8. Speak to the baby as much as possible. All young babies need to listen to speech for many months before they can sort put and imitate the sound of words. With a hearing impaired child this listening stage often last for a long time and because the child does not appear to respond, it can be very easy to forget to talk to him.
9. Make the child listen to record players, the radio and the TV, etc.
10. Making sound pictures first think of a situation and then create the appropriate noises, which will conjure up that image. An easy one is 'a walk down the street'. This includes traffic noises, scraps of conversation, footsteps of different people, a police siren, sound from different shops, supermarkets, etc.

General Activities

1. Don't overprotect the child. Treat him like a normal child.
2. The anticipatory movements should be accurate, e.g. call the baby to lift his head while holding his shoulders and axilla.
Encourage moments of experimentation in everyday situations, which create sounds and sensations.

Warning Signs Suggestive of Hearing Abnormalities

1. Not responding to
 - a. Loud noises

- b. Clapping sound at one foot distance.
 - c. Sound of a rattle.
2. Not locating the sounds.
 3. Absence of cooing and babbling even at 1 year.
 4. Absence of spontaneous vocalization.
 5. Inability to understand simple commands even at 18 months.

PLEASE PAY ATTENTION

- Parents need to understand the importance of the early stimulation.
 - It is an attempt to enrich and promote the growth of infants.
 - Earlier the intervention, the better is the outcome.
- However, there are limitation that certain functions may not be developed even after successive efforts for various reasons.
 - Parents need and must ensure their well-being.
 - The resources of the parents need to be preserved with normal routine activities.
 - Role strain need to be avoided by parents (should not overburden).
 - Parents must pay attention to the normal siblings of the affected children.
 - Family as a UNIT must work together, taking turns, so that one person is not over stressed.
 - Parents need not feel guilty to experience joy when there is child with problem.
 - Utmost care of caretakers must be ensured, as their well-being can influence directly with the training.