

PHYSICAL DEVELOPMENT AND WELLBEING

Montessori Children's Foundation
Learning Series



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SESSION OUTLINE

INTRODUCTION

PHYSICAL DEVELOPMENT

Sensory development

Movement

development

WELLBEING

MILESTONES



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INTRODUCTION

"To promote healthy growth and development, young children should receive support from parents and family, educators and caregivers – that allows for an active lifestyle with a daily balance of physical activities, sedentary behaviours and sleep. Young children should participate in a range of developmentally appropriate, enjoyable and safe play-based physical activities in a variety of environments: e.g., home/early childhood education and care/community."

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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

Introduction

- Babies use every resource they have to understand their world.
- Very important among these resources are sight, touch, hearing, smell and, taste.
- Each sense develops in its own way at its own pace
- The best opportunity for development is through their environment



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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

Development of sight

- Last of the senses to develop in infancy
- The newborn has difficulty in viewing beyond 20-30 cm.
- Muscle control develops quickly, as the baby uses his eyes to take in everything in his environment.
- The mobiles and objects that catch the babies attention most are usually black and white or colours of contrast.
- Infants of around 2-3 months have capability of perceiving depth.
- Visual acuity = approx 7 months
- Observe young babies gazing at objects they are interested in.



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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

Development of Touch

- 'Tactile sense' - begins to develop as early as seven weeks of pregnancy.
- Most developed of senses at birth - helps shape early bond between the mother and baby.
- Tactile sense extends over whole body - higher concentrations of tactile receptors in our hands, feet, mouth, forehead, temples, the back of the forearm and genital areas.
- Skin to skin contact with parents helps to build baby's sense of security.
- Tactile receptors in mouths provide their brain with information about texture and shape - along with other sensory information from taste and smell etc. This is 'mouthing'.
- Infants like to grasp - they are born with a grasp reflex.
- As they move on to voluntary action, their urge to reach out and grasp objects for a closer look becomes natural and spontaneous.

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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

Development of Hearing

- Hearing is sometimes called auditory perception.
- Is the ability to perceive sound vibrations, through the ear.
- Development commences from approximately seventeen weeks in-utero.
- Infants show great interest in the human voice and will gaze at the mouth of a speaking person.
- Hearing = learning language.
- Hearing infections can cause hearing loss and prevent babies from learning their language.
- Important to act quickly if we suspect an ear infection.

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SENSORY DEVELOPMENT

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PHYSICAL DEVELOPMENT
SENSORY DEVELOPMENT

Development of smell

- The baby's sense of smell (olfactory sense) develops in the womb.
- The sense of smell is processed by a part of the brain that also controls memory.
- Babies can distinguish between scents.
- The sense of smell is processed by a part of the brain that also controls memory.
- Familiar smells can provide a sense of comfort and security for a baby.
- The sense of smell is usually strongly connected to the sense of taste.

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SENSORY DEVELOPMENT

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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

Development of Taste

- The sense of taste (gustatory sense) is well developed by the time of birth.
- The number of taste buds in the baby's mouth and his reactions to different tastes will increase as he grows.
- Early exposure to varied flavours may help babies develop preferences for healthy foods later on.
- By three months of age, the baby's tongue will have grown and will be using it to explore his environment.
- Mouthing - provides a convenient way to try and understand objects
- Babies will react to new tastes and textures in their mouth when introduced to solids.
- Experts suggest offering each new food at least eight times before deciding your baby doesn't like it.

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SENSORY DEVELOPMENT

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PHYSICAL DEVELOPMENT

SENSORY DEVELOPMENT

Supporting Sensory Development

- Choose a range of different textures
 - Wooden
 - Fabric
 - Rubber
 - Different metals
 - Some stones
- These will all give a different experience to the child.
- We also want to make sure that the baby from birth is given mobiles to look at to stimulate the development of the eyes.

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SENSORY DEVELOPMENT

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PHYSICAL DEVELOPMENT
MOVEMENT DEVELOPMENT

Introduction

- Movement control is an essential requirement for life.
- Human infants begin life with very little control over movement - involuntary.
- The baby at birth has many reflexes. These reflexes become integrated as they develop voluntary movement.
- It takes several months and important bodily development for them to establish some control over the muscles that make each movement.

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PHYSICAL DEVELOPMENT
MOVEMENT DEVELOPMENT

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PHYSICAL DEVELOPMENT MOVEMENT DEVELOPMENT

The Nervous System

- Human nervous system = brain, the spinal cord, network of neurons.
- Neurons = electrical messages around your body.
- The nervous system sends, receives and interprets information
- The human brain grows through connections made within the brain between the neurons.
- As a communication repeat the neural pathway becomes stronger.
- 1 million new neural connections per second in the first few years of life.
- Exercise neural connections in exploration and discovery.
- Experience will literally grow the child's brain!

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PHYSICAL DEVELOPMENT MOVEMENT DEVELOPMENT

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PHYSICAL DEVELOPMENT MOVEMENT DEVELOPMENT

Gross-Motor Movement

- Large body movements
- First movements - tummy time
- Sitting - frees the arms and hands
- Standing - balance
- Walking - new freedoms!

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MOVEMENT DEVELOPMENT

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PHYSICAL DEVELOPMENT
MOVEMENT DEVELOPMENT

Fine-Motor Movement

- The ability to grasp and manipulate objects.
- Complex hand and finger skills - first year of life.
- Infants need opportunities to manipulate objects and the freedom to interact with them.
- Builds self-esteem.
- Baby's interest will drive them to explore.
- First grasp (around 4 months) - precise pincer grasp, a further 4-6 months.
- Floor time - tummy and back to the floor.
- Successful reaching progresses from jerky to controlled.
 - First successful reach usually takes place between 3 and 4 months.
 - Good head control necessary for reaching and grasping

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MOVEMENT DEVELOPMENT

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WELLBEING

A sense of happiness

- Physical, mental, emotional and social health all contribute
- When one or more of these not healthy our wellbeing will be under threat.
- We can support wellbeing:
 - We are an important role model
 - Model respect
 - Understand the child/ren. Some need more time than others.
 - Provide an environment of freedom (within limits)
 - Model and teach healthy habits:
 - positive thinking
 - Resilience
 - ability to concentrate/focus without being distracted
 - ability to choose responsibly and understand the consequences of our choices.
- Model and teach:
 - Healthy sleep behaviour
 - Healthy eating

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WELLBEING

HEALTHY EATING - WEANING

- Weaning
 - Until 6 months, breast milk is the only food a baby needs.
 - Solids begin at about 6 months. If they push it back out of their mouth they are not ready.
 - A baby can still have breast milk after they are eating solids.
- Iron rich foods
 - begin with iron rich foods such as cereal and include fruits, vegetables and soft meat.
- Don't force Baby to eat or finish food.

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WELLBEING

HEALTHY EATING - WEANING

- Baby who is sitting, can use a weaning chair and table, for some meals.
- Adult can prepare the environment to supports weaning:
 - finger food
 - weaning table, chair
 - small utensils
 - variety of food




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WELLBEING

HEALTHY EATING

- Healthy food for babies and toddlers includes a wide variety of **fresh foods** from the **five healthy food groups**:
 - vegetables
 - fruit
 - grains
 - dairy
 - protein
- Each food group has different nutrients
- Babies and children need to eat a range of foods from across all five food groups to get all the nutrients they need.

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GROSS MOTOR MILESTONES

Raising Happy Kids

Newborn to 4 months

- Turns head to both sides while on back
- Lifts head and able to turn to both sides while on belly
- Head lag with pull to sit
- Kicking both legs and moving both arms equally while on back
- Performs tummy time on floor regularly
- Raises head in line with trunk when pulled to sit by 4 months
- Pushes up on forearms and turn head side to side while on belly
- Tolerates tummy time well by 4 months
- Rolls from belly to back

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GROSS MOTOR MILESTONES

Raising Happy Kids

4 - 8 months

- Rolls from back to belly
- Brings feet to mouth laying on back
- Pushes up on hands with arms extended while on belly
- Pivots in a circle while on belly to each side
- Sits alone
- Reaches for toys to play when sitting
- Catches self with loss of balance in sitting
- Crawls on belly

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GROSS MOTOR MILESTONES

*Raising Happy Kids***8 - 12 months**

- Moves between laying down and sitting upright without help
- Crawls on hands and knees
- Pulls to a standing position with one foot leading
- Cruises around furniture
- Stands alone for a few seconds

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GROSS MOTOR MILESTONES

*Raising Happy Kids***1 - 2 Years**

- Crawls up stairs
- Stands up from the floor without support
- Walks alone well
- Squats and stands back up without holding onto support
- Walks upstairs with hands or rails to help
- Crawls down the stairs (on belly, feet first)
- Can run, though falls easily
- Kicks a ball forward

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GROSS MOTOR MILESTONES

*Raising Happy Kids***2 - 3 Years**

- Walks and runs well
- Jumps in place with both feet off the ground
- Walks up and down stairs alone
- Kicks a ball with either foot
- Rides a tricycle/balance bike

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GROSS MOTOR MILESTONES

*Raising Happy Kids***3 - 4 Years**

- Balance on one foot for a few seconds
- Jump forward 10 - 24 inches
- Catches a large ball
- Rides a balance bike well
- Can run, jump and climb well, is beginning to skip
- Hops proficiently on one foot
- Catches a ball reliably
- Begins somersaults

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GROSS MOTOR MILESTONES

*Raising Happy Kids***4 - 5 Years**

- Skips on alternate feet and jump rope
- Begins to skate and swim
- Can pedal: Rides bicycle with/without training wheels
- Climbs well

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FINE MOTOR MILESTONES

*Raising Happy Kids***0 - 4 months**

- Brings hands to mouth
- Moves arms
- May swing arms at toys
- Hands start to open more
- Starts to track a slow-moving object

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FINE MOTOR MILESTONES

*Raising Happy Kids***4 - 8 months**

- Holds small object in hand (without thumb tucked in hand)
- Holds hands together
- Reaches for toys with both arms
- Pushes up on arms when on tummy
- Follows objects with eyes in all directions
- Shakes and bangs rattles
- Brings toys to mouth
- Uses a raking grasp
- Begins to transfer objects from one hand to the other
- Keeps hands open and relaxed most of the time by 8 months

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FINE MOTOR MILESTONES

*Raising Happy Kids***8 - 12 months**

- Able to release an object voluntarily
- Gives toy to a caregiver when asked
- Bangs two toys together
- Turns pages of a book a few pages at a time
- Begins to put objects into a container
- Points to objects
- Stacks 2 blocks

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FINE MOTOR MILESTONES

*Raising Happy Kids***1 - 2 years**

- Able to pick up small objects between the thumb and first finger
- Claps hands together
- Puts objects and toys into containers
- Waves goodbye
- Uses both hands to play
- Can isolate index finger with other fingers closed
- Scribbles with a crayon
- Beginning to use a spoon and cup
- Can build a block tower using 3-4 blocks
- Puts rings on a ring stacker
- Turns pages of a book one at a time
- Begins holding crayons with fingers

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FINE MOTOR MILESTONES

Raising Happy Kids

2 - 3 years

- Holds crayon with fingertips and thumb
- Able to make a circle or a cross when drawing
- Has hand control to build block towers
- Can string beads on a shoelace
- Able to do simple puzzles

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FINE MOTOR MILESTONES

Raising Happy Kids

3 - 4 years

- Begins to develop scissor skills – cuts in a line
- Able to do more complex puzzles (6-10 pieces)
- Able to hold a pencil
- Scissor skills show improvement by 4 - Able to cut simple shapes

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FINE MOTOR MILESTONES

Raising Happy Kids

4 - 5 years

- Able to draw, paint and colour (can draw a person with all body parts)
- Learning printing & cursive handwriting
- Able to place small objects in a bottle quickly with precision
- Starting to work with other mediums for art like clay, Paper Mache, etc.

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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

Prepare an environment that allows for the following:

1. Freedom of Movement
1. Activities to develop and then refine both fine and gross motor movements

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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

Birth - 4 months

- Low mirror and movement mat.
- Clothing that allows the baby to move freely.
- No containers (prams and other constraints) (or only used occasionally)
- Placing baby on their back to begin to develop body awareness.
- Tummy time (on the mother and adults from birth and on a flat surface after the baby can lift their head)
- Visual Mobiles - Montessori mobiles to help with visual tracking. Great for eye development from birth.
- Tactile/Auditory mobiles, once they can reach out and bat at objects in front of them: for example, bell on ribbon, kicking ball /clutch ball.
- Toys that stimulate auditory experience for example small rattles and music box
- An environment that has only a few items, so the baby is not overwhelmed with objects – create order in the physical environment as well as the routine. Remember less is more!
- Adults that respond to the babies needs

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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

For equilibrium (Gross motor)
Movement mat and mirror



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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

To help develop the eyes / visual tracking

Montessori Mobiles

Munari Mobile





Octahedron Mobile

The Dancers





Gobbi Mobile

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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

Fine motor development

Batting and reaching



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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

4 - 8 months

- Activities to promote development of equilibrium when ready to pull up for example heavy furniture, a long bar attached to the wall
- Outdoor, nature experiences
- Objects for grasping that are slow moving for example, slow rolling balls and cylinders to promote moving forward.
- Auditory objects: rattles, clacker, bells
- Objects with different sensorial qualities such as different textured balls
- Objects that a child can manipulate with hands: interlocking circles; interlocking rings; gourds, drop boxes etc.

The adult:

- Prepare environment that supports weaning: finger food, weaning table and chair, tablecloth, small utensils, variety of food. Make sure the child can sit at family meals and experience family interaction
- Adults who offer opportunity and incentive for movement, for example putting rattle slightly away from the baby when they begin to reach out.
- The adult should trust and have faith in the baby to move by himself.

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HOW TO SUPPORT PHYSICAL
DEVELOPMENT AND WELLBEING

Raising Happy Kids

4 - 8 months

All the following toys encourage the baby to move and allow the hand to have different experiences.

For both equilibrium and the hands (Gross and Fine motor)

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HOW TO SUPPORT PHYSICAL
DEVELOPMENT AND WELLBEING

Raising Happy Kids

4 - 8 months

For the hands (Fine motor)

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HOW TO SUPPORT PHYSICAL
DEVELOPMENT AND WELLBEING

Raising Happy Kids

8 - 12 months

- Movement bar, walker (pushcart), shelf to put activities on, and other suitable stable furniture for pulling up and cruising along
- Stairs with railing – to practice supported movement
- Toys that roll and encourage movement
- Clothing for movement
- Remove obstacles from the environment and keep it very safe, ensuring everything is stable.
- Bare feet as much as possible to aid healthy development of the feet and movement
- Balls and spinning tops
- Development of hand eye: Drop boxes, furniture with key; opening and closing containers
- Rings and Pegs; locks and keys; Nuts and bolts
- Adult who does not force the child to walk prematurely
- Outdoor sensorial experiences
- Freedom of movement – minimize time strapped in car seats and strollers

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HOW TO SUPPORT PHYSICAL
DEVELOPMENT AND WELLBEING

Raising Happy Kids

8 - 12 months

For both equilibrium and the hands (Gross and Fine motor)





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HOW TO SUPPORT PHYSICAL
DEVELOPMENT AND WELLBEING

Raising Happy Kids

8 - 12 months

For the hands (fine motor)






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HOW TO SUPPORT PHYSICAL
DEVELOPMENT AND WELLBEING

Raising Happy Kids

1 -3 years

- Bars and furniture for pull-up to stands
- Climbing structures
- Step stools (kitchen and bathroom)
- Pull and push equipment to practice walking, control and balance e.g., wheelbarrow and wagon
- Opportunities and space for running, climbing and jumping
- Role modelling ---including grace and courtesy
- Practical life activities and involve child in daily life
- Interactive games requiring balance
- Nuts and bolts: inserting opening and closing,
- Dimensional gradation
- Rings and pegs, disks on dowels, bead stringing, mailbox, slotted box, sorting, puzzles
- Freedom of movement – minimize time strapped in car seat, strollers etc
- Allow a degree of struggle in the course of achieving objectives

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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

1 - 3 years

For equilibrium (gross motor)

Give experiences with:
Climbing, Pushing, Pulling, Brachiation, Jumping, Running, Riding



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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

1 - 3 years

For the hands (fine motor)



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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

3 - 5 years

- At this stage the child has gained equilibrium and fine motor skills. They will begin to refine what has already been developed.
- Parents should be encouraged to allow their child to further test their bodies – push themselves to further refine development.
- They will do this naturally if allowed to explore fully the capacities of their bodies.
- They will do this through **outdoors activities** and through **practical life activities** and being **engaged in everyday living tasks**.

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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

3 -5 years

Refining Gross and Fine Motor skills

Practical life activities



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HOW TO SUPPORT PHYSICAL DEVELOPMENT AND WELLBEING

Raising Happy Kids

3 -5 years

Refining Gross and Fine Motor skills

Outdoor activities



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TASKS

Task 1 - Watch Movement video

Task 2 - Answer questions

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