



# The First 1000 Days of Life: Shaping your child's future

**Dr Nur Adila Ahmad Hatib**  
**Consultant Paediatrician, KKH**

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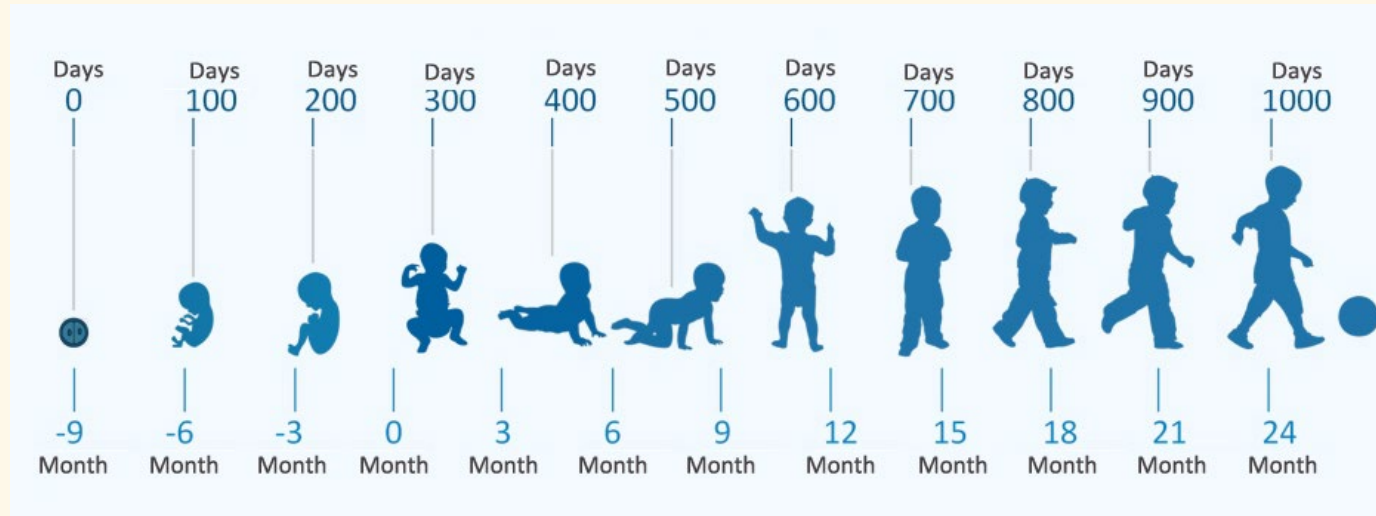
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# The first 1000 days of life...



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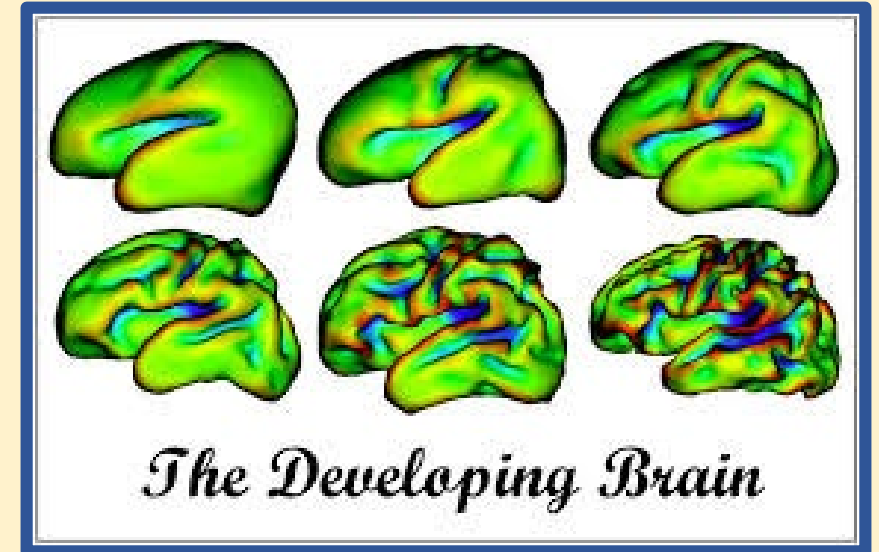


# The human brain's window of opportunity

- Foundations of neurodevelopment are established across the human lifespan<sup>1</sup>
- The most rapid period of brain growth and the period of highest “plasticity”

Brain plasticity: Brain's ability to adapt and change to any stimulus

- **1,000,000+** new brain connections formed per second<sup>2</sup> (cortical grey matter expands rapidly<sup>3</sup>) in the first year of a child's life



1. Sharma AJ *et al.* Maternal, infant and early childhood nutrition—the thousand day window of opportunity (CDC 2019)

2. <https://thousanddays.org>

3. Gilmore JH *et al.* Imaging structural and functional brain development in early childhood. *Nature Reviews Neuroscience*. 2018 Mar;19(3):123-37.

# The DOHaD concept



## Developmental Origins of Health and Disease<sup>1</sup>

- Many diseases e.g. diabetes, asthma may have origins during fetal and child development

- Factors predisposing to diseases later in life:

- Poor nutrition
- Exposure to environmental toxins
- Infections
- Stress



- Maximising child development at this crucial stage also sets the foundation for improved health, economic and social outcomes

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# Maximising the first 1000 days...



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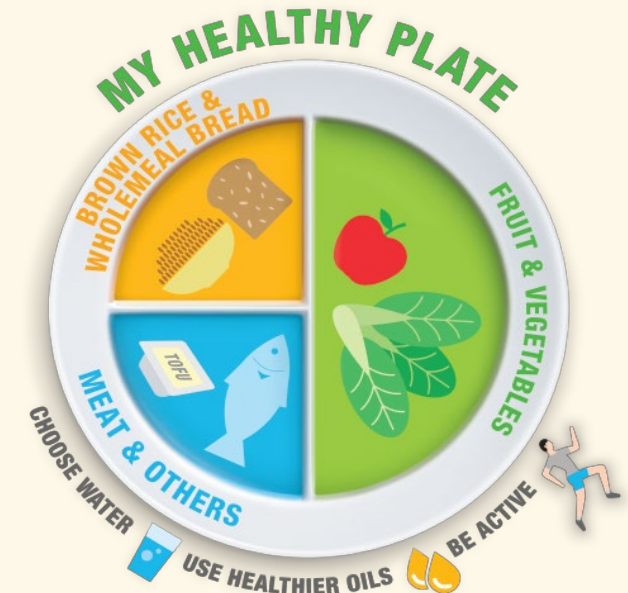


# Aim for Optimal Nutrition

- Good nutrition is essential for your child's brain development
- Brain is most vulnerable to nutrient deficiency at this time



*\$35 return for every \$1 invested in improving the nutrition of mothers and children in the first 1000 days<sup>1</sup>*



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1. <https://thousanddays.org/why-1000-days/>

# Be a responsive caregiver



Early child and brain development is profoundly affected by the quality of caregiving and support in the early years.<sup>1</sup>



Actively engaging with your baby strengthens the parent-child bond & stimulates early development

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1. Mustard JF. Experience-based brain development: Scientific underpinnings of the importance of early child development in a global world. Paediatrics & child health. 2006 Nov 1;11(9):571-2.

# Provide a safe environment for your child to learn & thrive

(Infographics available on Parent Hub)



you've got this!

Health Promotion Board

## Child-proofing Your Home

Keep things safe for your growing child as they explore the house!

**Milestone 1: Crawling and Sitting**

**Parent, be on guard!**

- Use edge protectors on sharp furniture corners, safety gates at the top and bottom of stairs, stove guards, appliance latch/locks, toilet seat locks.
- Use non-slip rubber mats to prevent slipping.
- Empty pails and bathtubs to prevent drowning.

**Keep hazards out of your child's reach**

- Lock cabinets containing medications, detergents, cleaning agents and sharp objects.
- Fit electric outlets with covers.

**Milestone 2: Standing**

**Prevent items and furnitures from toppling**

- Fix wardrobes to walls and/or anchor down household objects.
- Make clothes racks less accessible.
- Use brackets, braces or wall straps to secure unstable/top-heavy furniture.

**Milestone 3: Walking and Climbing**

**Keep child away from windows**

- Lock window grilles, affix window guards and stops, and keep furniture away from windows to prevent children from climbing up.

**Always ensure that your child is accompanied by a responsible caregiver!**

Scan to find out more at Parent Hub  
go.gov.sg/info-ph-1

In collaboration with KKH Injury Prevention Working Group.

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# Seize Opportunities for Early Learning



Maximising your child's development

- Speech & Language
- Fine motor
- Gross motor

The right stimuli during this period helps with language, maths, reasoning & social skills.

Read to your baby



Don't underestimate the power of play!



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# More Tummy Time

- **Start early** – as soon as baby is brought home from hospital
- Helps strengthen neck and back muscles and **optimizes motor development**
- Prevents “flat” head
  - Special pillows, wedges, head positioners etc. are not evidence-based and pose a suffocation risk during sleep



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# Less Screen Time

## MOH Guidance on Screen Use for Children



### 0 to 18 months



- Discourage any screen use (unless it is for interactive video chatting) because the early years are a critical period for your child's brain development.

#### AVOID...

- ✗ Background screen use (i.e. having devices turned on in the background even when your child is not watching them)

### 1.5 to 6 years



- If your child is aged between 1.5 to 3 years, try to limit screen use to less than one hour a day.
- Carefully choose age-appropriate and educational content for your child.
- Watch media together with your child, and talk to your child about the content to keep him/her engaged

#### AVOID...

- ✗ Screen use during mealtimes and one hour before bedtime
- ✗ Background and passive screen use (i.e. screen use without thought, interaction or learning)



How to track your child’s developmental milestones?

SCREENING AT 6 MONTHS  
(6 months - 12 months)

Date of Screening: \_\_\_\_\_ Age: \_\_\_\_\_ Main caregiver: \_\_\_\_\_

**PARENTAL CONCERNS**  
Please inform your doctor if your child has ANY of these difficulties:  
• Does not babble, point or use gestures by 12 months  
• Has lost any language skills  
• Does not respond readily to affection  
• Has poor eye contact

DEVELOPMENTAL CHECKLIST (TO BE COMPLETED BY PARENTS) Please tick "Yes"/"No" ALL FIELDS SHOULD BE COMPLETED		YES	NO	Age (mths) when 90% achieve the milestone
<b>Personal Social</b>				
1	Your child displays excitement like kicking legs or moving arms, on seeing an attractive toy. (Excites at a toy)	<input type="checkbox"/>	<input type="checkbox"/>	5.5
2	Your child will try to get a toy that he enjoys when it is out of reach by stretching his arms or body. (Works for a toy out of reach)	<input type="checkbox"/>	<input type="checkbox"/>	6.5
3	Your child seems to be shy or wary of strangers. (Reacts to stranger)	<input type="checkbox"/>	<input type="checkbox"/>	10
4	When you face your child, say bye-bye and wave to him, he responds by waving his arm, hand or fingers without his hands or arms being touched. (Waves bye-bye)	<input type="checkbox"/>	<input type="checkbox"/>	10.5
5	When you clap your hands, your child responds by clapping his hands when you ask him to, without his hands or arms being touched. (Claps hands)	<input type="checkbox"/>	<input type="checkbox"/>	11
6	Your child can indicate what he wants without crying or whining. He may do this by pointing, pulling and making speech-like sounds or putting arms up to be carried without speaking. (Indicates wants by gestures)	<input type="checkbox"/>	<input type="checkbox"/>	13.5
<b>Fine Motor-Adaptive</b>				
7	When your child is on his back, his eyes and head will follow the movement of an object from one side, past the mid-line and right over to the other side. (Follows 180 degrees)	<input type="checkbox"/>	<input type="checkbox"/>	4.5
8	Your child is able to focus on small objects like a raisin, placed in front of him on the table. (Regards a raisin)	<input type="checkbox"/>	<input type="checkbox"/>	5.5
9	Your child can pick up a toy within his reach or reach out for things. (Reaches for an object)	<input type="checkbox"/>	<input type="checkbox"/>	6
10	Your child will look for an object that has fallen out of his line of vision when his attention is focused on that object. (Looks for a fallen object)	<input type="checkbox"/>	<input type="checkbox"/>	7
11	Your child can pass something small from one hand to the other hand. (Passes a cube from hand to hand)	<input type="checkbox"/>	<input type="checkbox"/>	7.5
12	Your child can pick up a raisin by bringing together any part of the thumb and any one finger. (Finger-Thumb Grasp)	<input type="checkbox"/>	<input type="checkbox"/>	10
13	When your child is holding a block in each hand, he is able to hit them together, without his hands or arms being touched by you. (Bangs 2 cubes held in hands)	<input type="checkbox"/>	<input type="checkbox"/>	10.5

SCREENING AT 6 MONTHS  
(6 months - 12 months)

DEVELOPMENTAL CHECKLIST (TO BE COMPLETED BY PARENTS) Please tick "Yes"/"No" ALL FIELDS SHOULD BE COMPLETED		YES	NO	Age (mths) when 90% achieve the milestone
14	Your child can pick up a small object like a raisin, using only the ends of his thumbs and index finger. (Pincer grasp)	<input type="checkbox"/>	<input type="checkbox"/>	13.5
<b>Language</b>				
15	Your child laughs out loud without being tickled. (Laughs)	<input type="checkbox"/>	<input type="checkbox"/>	4.5
16	You child turns towards the side of the sound of a rattle placed out of sight about 20cm behind each ear. (Responds to sounds)*	<input type="checkbox"/>	<input type="checkbox"/>	7.5
17	Your child makes single sounds consisting of a consonant and a vowel, like "ba", "da", "ga", "ma". (Says single syllables)	<input type="checkbox"/>	<input type="checkbox"/>	10
18	Your child imitates any sound after you e.g. sounds like coughing, clicking of the tongue or any other speech sounds. (Imitates speech sounds)	<input type="checkbox"/>	<input type="checkbox"/>	10
19	Your child uses the word "Papa" and "Mama" specifically. (Says Papa/Mama specifically)	<input type="checkbox"/>	<input type="checkbox"/>	14.5
<b>Gross Motor</b>				
20	When in a sitting position, your child can hold his head upright steadily. (Sits, head steady)	<input type="checkbox"/>	<input type="checkbox"/>	5
21	Your child is able to roll over from stomach to back or back to stomach. (Rolls over)	<input type="checkbox"/>	<input type="checkbox"/>	5
22	When you are holding your child under his arms loosely, he is able to bear some weight on his legs for a few seconds. (Bears weight on legs)	<input type="checkbox"/>	<input type="checkbox"/>	6
23	When your child is placed on his stomach, he can lift his head and chest up using the support of outstretched arms, so that his face is looking straight ahead and the chest is well lifted away from the surface. (Holds chest up, arm support)	<input type="checkbox"/>	<input type="checkbox"/>	7
24	Without being propped by pillows, a chair or a wall, your child is able to sit alone for more than 5 seconds. He can put his hands on his legs or on a flat surface for support. (Sits, no external support)	<input type="checkbox"/>	<input type="checkbox"/>	7.5
25	Your child can stand holding on to a chair or table for more than 5 seconds. (Stands holding on)	<input type="checkbox"/>	<input type="checkbox"/>	9
26	Your child can pull himself to a standing position by himself without help. (Pulls to stand)	<input type="checkbox"/>	<input type="checkbox"/>	10

\*The instruction from the Denver Developmental Screening Test (Singapore) has been amended.

Comments of Doctor/Nurse on Developmental Checklist completed by parents:



# Red Flags in Early Childhood Development

Here are some developmental red flags to look out for in the first 3 years.  
If you notice these features in your child, do bring them to see a doctor:

## By 3 months

- ☐ Not smiling or looking at you
- ☐ Not making sounds or vocalising (e.g. "ah", "uh")
- ☐ Not moving the arms or legs equally when lying on the back

## By 6 months

- ☐ Not showing excitement at toys, or not laughing/giggling when interacting with you or others
- ☐ Not able to reach out for, or grab a toy/object with the hands
- ☐ Not able to hold the head steady when held in a sitting position
- ☐ Not able to roll over from stomach to back or back to stomach

## By 12 months

- ☐ Not able to babble (e.g. "gagaga", "bababa")
- ☐ Not responding readily to affection
- ☐ Has poor eye contact
- ☐ Not able to pick up small objects (e.g. raisin) with the thumb and finger(s)
- ☐ Not able to pull him/herself to a standing position without help

## By 18 months

- ☐ No single words with meaning (e.g. Mama specifically to refer to Mummy)
- ☐ Not using gestures or not being able to point to show something he/she is interested in
- ☐ Not responding readily to affection
- ☐ Has poor eye contact
- ☐ Not able to scribble or pick up small objects with a pincer grip (using the end of the thumb and index finger)
- ☐ Not able to walk independently



From the ARIF Times April 2024

<https://projectarif.sg/bulletins>



**You have the power  
to positively impact  
your child's future,  
starting now...**

