

StarSpecial

BRIGHT KIDS

Nurture them early

IT is every parent's dream to see their children grow strong and healthy. However, most parents tend to focus on their children's physical health and not their brain health. Dr Sangita Dharshini Terumalay, consultant paediatrician and paediatric neurologist at Subang Jaya Medical Centre, says that it is time for parents to start paying more attention to their children's brain health, especially in the early years.

The early years are very important because the brain is developing the most rapidly. This is when brains have high plasticity and can retain a high percentage of everything that is learnt, forming strong connections that last for life. When asked to describe what can be defined as a healthy brain, she says, "In medical terms, a healthy brain would encompass the absence of diseases or conditions that affect the brain either neurologically or developmentally."

She also says that in order to nurture a healthy brain, there are at least five main areas that parents can focus on to boost better brain health. These areas are nutrition, screen time, sleep, parental involvement and playtime.

Being a parent is not an easy task. However, with a little help from online resources, parenting magazines and your neurologist, parents can make better



Dr Sangita Dharshini Terumalay.

decisions to improve their children's brain health.

■ For more information, call 03-5639 1212.

Sleep

It is important for children to get adequate sleep. There is a recommendation on appropriate sleep duration by age as provided by the United States' National Sleep Foundation.

Dr Sangita says that sleep consolidates memory and this directly helps with learning. Lack of sleep can affect children's mood and behaviour. "Children who do not get enough sleep will get cranky the next day, and potentially disrupt their learning sessions."

Dr Sangita also stresses that it is important for children to have a bedtime routine. This routine comprises of activities you do with your children as you prepare them for bedtime. Taking a bath, letting them choose their pyjamas, dimming the lights and reading them a story are examples of a bedtime routine.

She says, "Having a bedtime routine is



important to develop a good sleep cycle. It should be maintained over weekends. We should not allow children to wake up very late over the weekend as well as it will disrupt their sleep pattern, and in turn disrupt school when it starts up again for the week."

Nutrition

Nutrition is essential for brain development, especially during the phase of rapid brain growth. Adequate energy, protein, fatty acids and micronutrients should be made available during this foundation period, establishing the basis for healthy brain growth and development.

Dr Sangita suggests that parents pay attention to what their children eat and drink, and focus on providing food that have high nutritive value.

In the first six months of life, breastfeeding would be ideal as breast milk contains long-chain polyunsaturated fatty acids, choline, phospholipids and other components that can promote brain growth. Another example that is more suited for children is the Mediterranean diet, which is high in Omega-3 fatty acids

that have the potential to improve visual and neural development. Examples of foods that are high in Omega-3 are fish and nuts.

Children who are not adequately nourished are at risk of failing to reach their developmental potential in cognitive, motor, and socioemotional abilities. These abilities are strongly linked to academic achievement and economic productivity. Dr Sangita strongly believes that parents should limit non-nutritive food, including processed food such as sausages and nuggets and foods that are high in sugar.



Screen time

Screen time is time where child is exposed to interactive electronic devices such as television, mobile phones and computers. The American Academy of Paediatrics recommends that children below two years old avoid digital media other than video chats. Children aged two to five should not watch more than one hour of high-quality children's programme per day.

Dr Sangita strongly disagrees with the approach of exposing your children to technology such as mobile phones or tablets from an early age. "Do not use technology as a babysitter to keep kids calm and quiet," she says.

A journal article published in JAMA Pediatrics titled *Associations between screen-based media use and brain white*

matter integrity in preschool-aged children explains that brain scans of children aged between three and five who had more screen time than the recommended duration without parental involvement had lower levels of development in the brain's white matter, a key area for development of language, literacy and cognitive skills. Excessive screen time is also associated with obesity and sleep disturbances.

Parents should set limits and watch or play with their children during screen time as this encourages social interaction, bonding and learning.



Parental involvement

It is understandable for parents to get extremely busy with their work and household chores. However, Dr Sangita advises that you spend a short amount of time engaging with your children. "Even if you are only able to spend 15 to 30 minutes a day with your children, do it. Parental involvement should start early

on, even if we think our children are not ready for it."

There are many ways for parents to be involved in their children's daily activities, including by singing them nursery rhymes or reading them storybooks. You could also get involved by playing board games and puzzles with them.

United States' National Sleep Foundation's recommended sleep duration

Age	Recommended	May be appropriate
Newborns 0 - 3 months	14 - 17 hours	11 - 13 hours 18 - 19 hours
Infants 4 - 11 months	12 - 15 hours	10 - 11 hours 16 - 18 hours
Toddlers 1 - 2 years	11 - 14 hours	9 - 10 hours 15-16 hours
Prechoolers 6 - 13 years	10 - 13 hours	8 - 9 hours 14 hours
Teenagers 14 - 17 years	9 - 11 hours	7 - 8 hours 12 hours
Young adults 18 - 25 years	8 - 10 hours	7 hours 11 hours
Adults 26 - 64 years	7 - 9 hours	6 hours 10 hours
Older adults Above 65 years	7 - 8 hours	5 - 6 hours 9 hours

Playtime

Children learn through play. Play allows children to utilise their creativity while developing their imagination, dexterity and physical, cognitive and emotional strength. The United Nations High Commission for Human Rights deems play as a right for every child.

Parents should promote unscheduled, independent child-driven play and emphasise the use of true toys such as wooden blocks and dolls. Being indoors can keep children safe, but spending active time outdoors is equally important.

Encourage messy play as this promotes



engagement with various sensory domains. Even when you are feeding your infant, you should encourage messy eating and allow the child to make a mess and explore the colours, textures and taste of each food item.