

# EARLY BRAIN DEVELOPMENT...



Brain development from birth to five years.

The early years of a child's life can have a significant impact on later health and development. Though the brain continues developing into adulthood, the first few years of this growth is rapid, in fact, it is estimated that 90% of a child's brain development occurs before the age of five!

IN THIS RESOURCE:

- The first 1000 days
- What does all this mean for parents / caregivers
- Hierarchy of needs
- Paternal health
- 1000 books initiative

## EARLY BRAIN DEVELOPMENT

During these early years, synapses, or connections in the brain are formed more rapidly than at any other time in a person's life. By the age of two or three, a child will have more than double the number of synapses than they will have in adulthood.

Throughout childhood, these extra synapses will be gradually eliminated through a process of 'pruning'. The synapses that will remain through to adulthood are the ones that are more frequently activated in early childhood.

Put simply, the more a child is exposed to certain stimuli during this period, the bigger the impact they will have on the brain's development.



## THE FIRST 1000 DAYS

The first 1000 days is the period from conception, up until the child's second birthday. During this time, the brain is developing rapidly and is thought to be at a point of "maximum developmental plasticity" which means that it is able to absorb more information and change more rapidly in response to that information, than at any other time in a person's life.

Early experiences have a profound effect on a child's developing brain. In the first few years of life, a child's brain is particularly vulnerable to negative experiences which can have long lasting consequences for the child. On the other hand, this period also provides a huge window of opportunity for parents and caregivers to set their child up for success in later life.

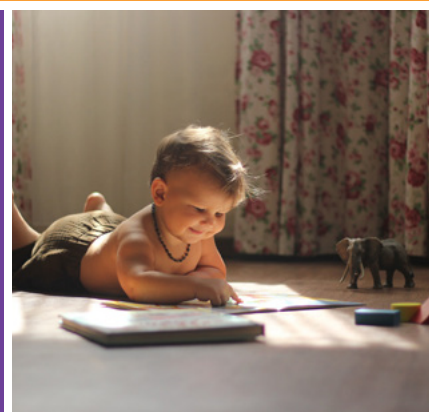
Consistent positive experiences during this time can greatly increase a child's chances for future achievement, success and happiness.

## PARENTAL HEALTH

The physical and mental health of the parent or caregiver is a key determining factor in the physical, cognitive and socio-emotional outcomes of the child. Parents with good mental health are more likely to be able to provide children with the level of love and support that they require for healthy brain development.

A key indicator of good mental health is a strong foundation of physical health and support for parents.

Maslow's hierarchy of needs (see overleaf) is a good reference for self-reflection and ensuring the needs of the caregiver are met so they are able to meet the needs of the child and provide responsive, nurturing care.



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## SO, WHAT DOES THAT MEAN FOR PARENTS/CAREGIVERS?

Parents and caregivers can support early brain development by providing a nurturing and stimulating environment for their child.

Children learn best when they feel safe and secure. Neglect and extreme or chronic stress can significantly impact a child's ability to learn and develop and can have long term negative consequences.

Positive interactions such as talking, playing, music and reading, stimulate brain growth and support long term benefits for children in terms of cognitive and socio-emotional development. Children will learn best when these interactions are reciprocal, meaning children are actively engaged in the interactions and parents take turns to speak and play with their child. Being sensitive to children's need and demonstrating empathy through our interactions can help protect the brain from the effects of stress and further stimulate brain growth.

Environmental factors such as making sure children's basic needs are met and ensuring that children have a healthy diet that includes plenty of vitamins is also essential for healthy brain development.

Remember that brain development begins at conception, so it is just as important to ensure that women are receiving the right nutrients throughout pregnancy.



### Self-actualization

desire to become the most that one can be

### Esteem

respect, self-esteem, status, recognition, strength, freedom

### Love and belonging

friendship, intimacy, family, sense of connection

### Safety needs

personal security, employment, resources, health, property

### Physiological needs

air, water, food, shelter, sleep, clothing, reproduction

## HIERARCHY OF NEEDS

Maslow's hierarchy of needs demonstrates the simple foundations that children need in order to thrive. Each of these individual levels contains a certain amount of internal sensation that must be met in order for an individual to complete their hierarchy. The goal in Maslow's hierarchy is to attain the fifth level or stage: self-actualization.

By making sure we are meeting these needs right from the earliest stages of development, we provide the best opportunity for tamariki to be able to reach their maximum cognitive potential.

## 1000 BOOKS

Exposure to reading and stories strengthens children's language and communication skills, stimulates brain development and sets children up for successful learning later in life.

The 1000 books initiative encourages parents to read a minimum of 1000 books to children in the time from birth to when they start school. This initiative has been adopted by many organisations throughout the world and has proven to be a simple and effective way of promoting healthy brain development in children.

Children who have been read to from birth and have met or exceeded the 1000 book target, have shown increases in early literacy skills which have long term impacts on later educational success.

By reading just one book every day, you can reach this target in less than three years and provide your tamariki with the best opportunity for successful learning.



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