



*companion primer*

# | CREATED TO HEAL:

A brief window into the changing brain

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# What do we know?

We know that brain structure and function can be changed by external circumstances. **THIS IS CALLED NEUROPLASTICITY.**

Orphaned and vulnerable children have experienced adversity and because of this, their brains have shaped in a particular way.

With the appropriate intervention based on relationships, children's brains can be reshaped, leading to greater wellbeing and better outcomes for kids from hard places.





# The story of Neuroplasticity

This tree is located in Slope Point, New Zealand, a place where the wind is so strong that the tree's growth is dictated by it. Although the branches are misshapen, they are not necessarily damaged. Rather, they grew differently. The tree is alive, but due to the harsh outside environment, it cannot nourish itself to the full potential it had as a small seed under the earth. It is susceptible to the environment - much like orphaned and vulnerable children are susceptible to their environment and the influence of the adults in their lives.

## PROBLEM

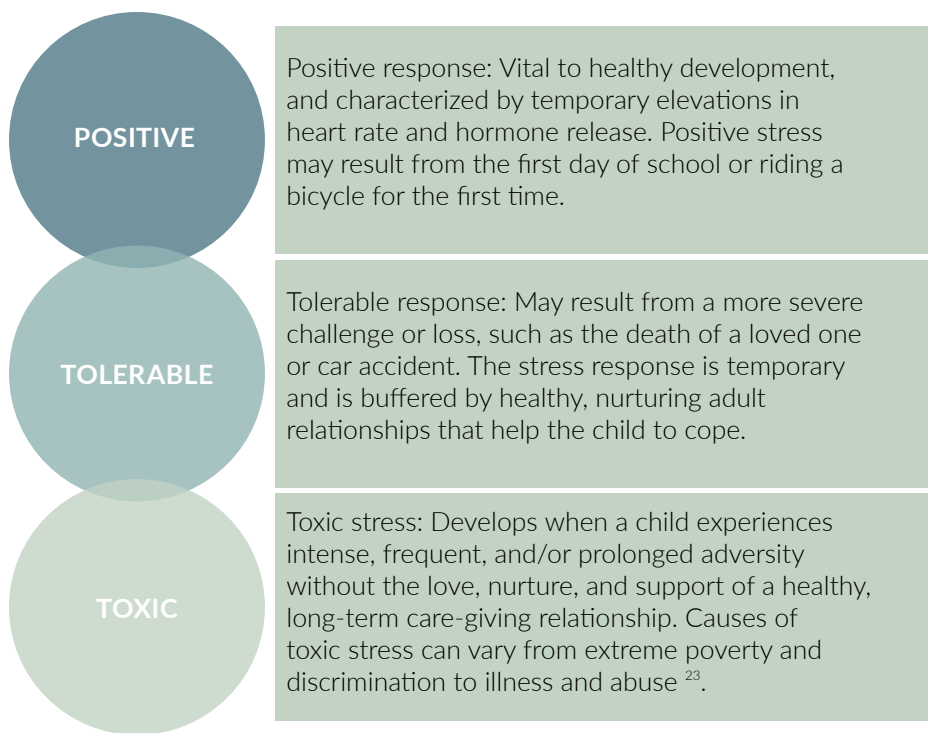
When a child is experiencing toxic stress, trauma, or adversity, their brain functioning is not damaged, but rather may develop abnormally.

## SOLUTION

When a child is given a supportive environment from relationships with parents, caregivers, teachers and their community, their brains have a chance to redirect towards normal development.

Thanks to neuroplasticity, children have the potential to "straighten the tree" of their own brain through relationship with long-term caregivers. When we place those stilts around and fully embrace a child, there's nowhere to go but up.

# How the brain responds to adversity



The most important protection against toxic stress is a nurturing caregiver relationship. When caregivers use the power of relationship, they create more felt safety, stability, and nurture for a child.



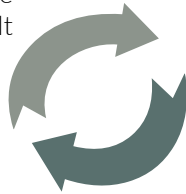


# Feedback loops: the potential for good



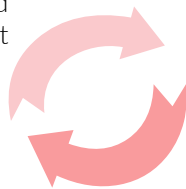
Thoughts, feelings, and experiences are not merely theoretical, but actually create physical matter in our brains. When brain cells communicate often, the pathway between them strengthen like a well traveled trail. We call these trails feedback loops. With enough repetition, these loops build habits and responses that become like instinct. These loops have the potential for great good or tremendous harm. Here are examples of harmful and helpful loops:

Verbal abuse  
from adult



Child thinks, "I am  
not good enough,  
I am worthless.  
Nobody likes me."

Verbal love and  
support from an adult



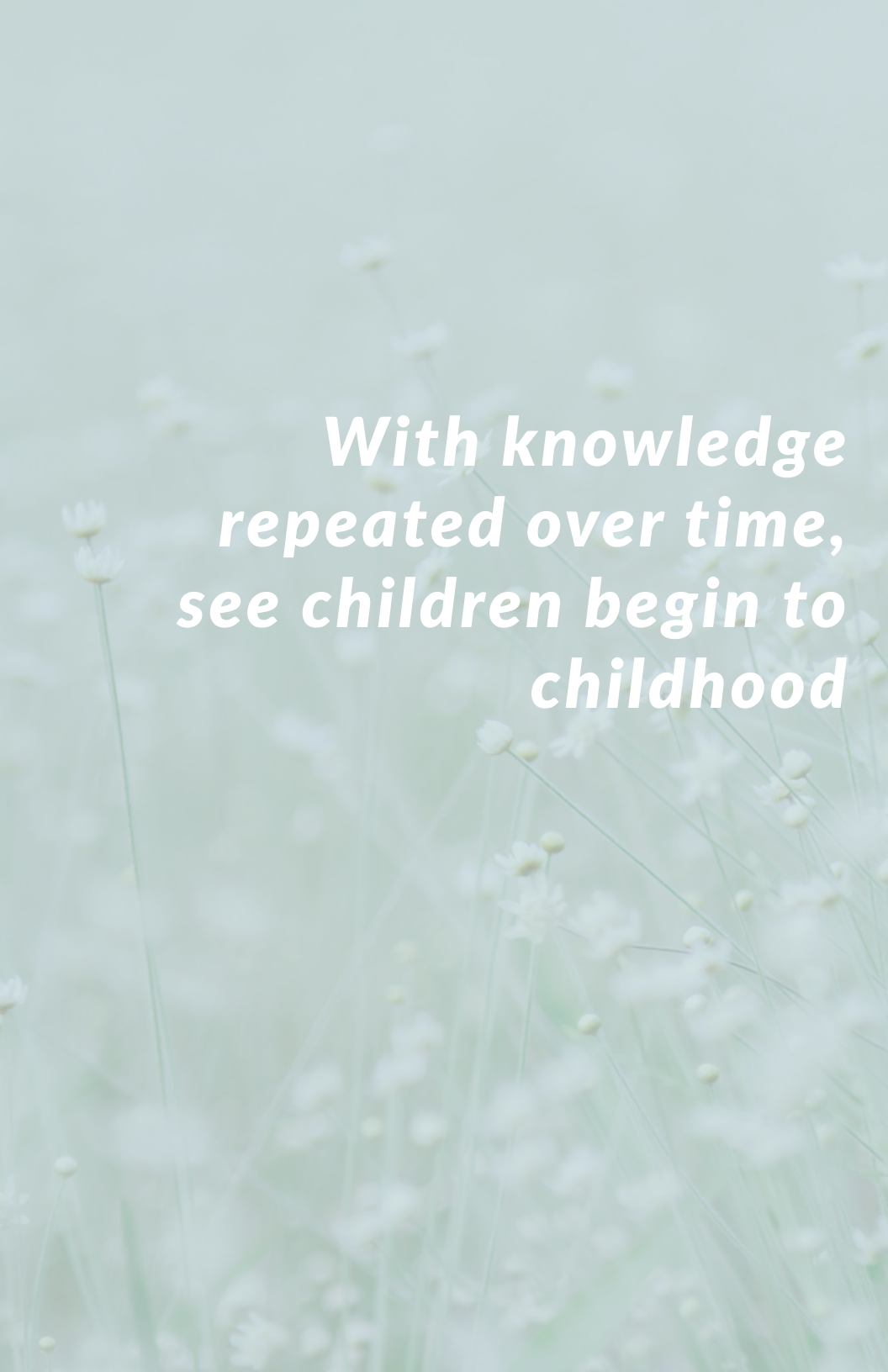
Child thinks, "I am  
loved, I am safe, I am  
wanted."



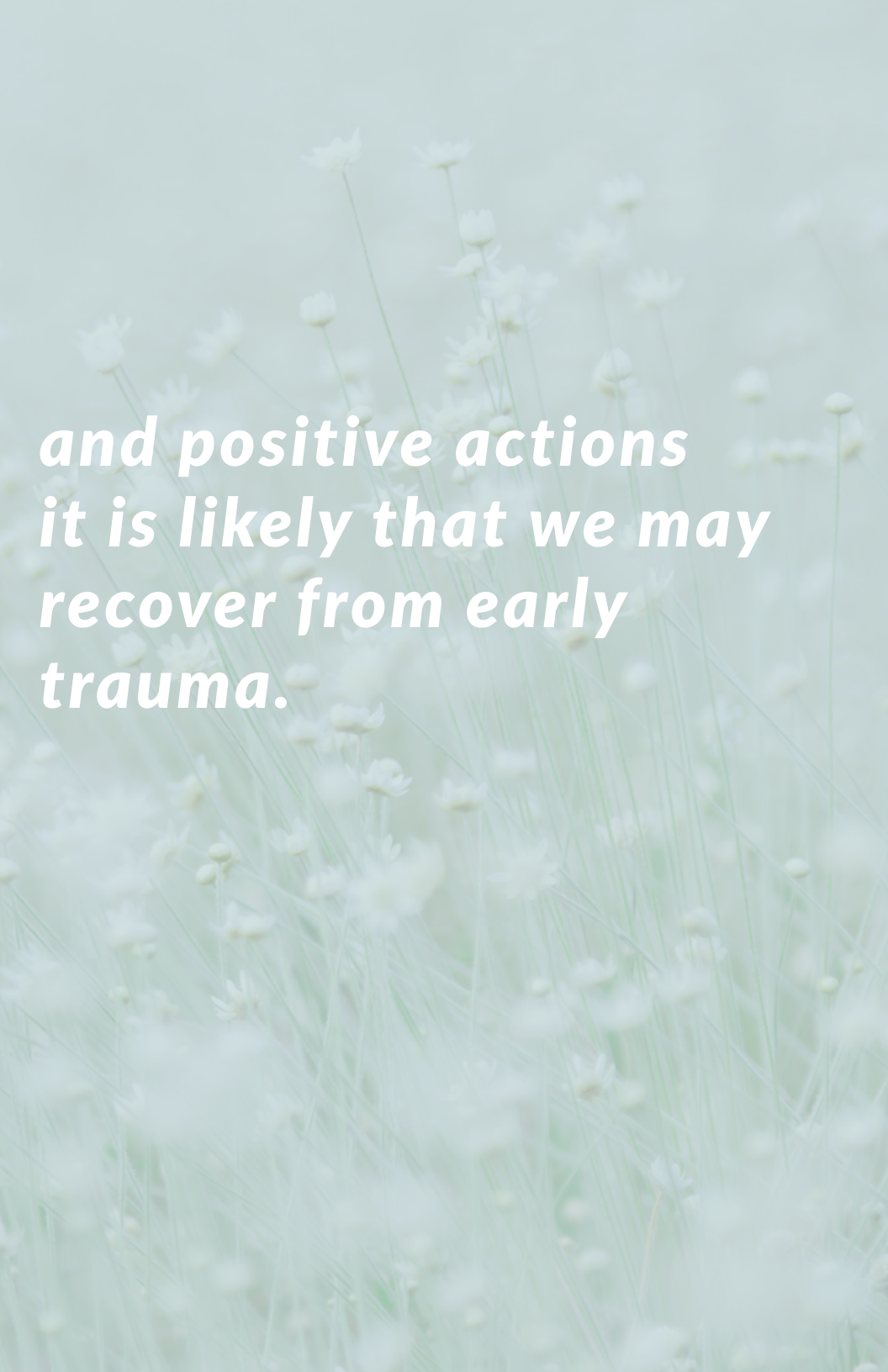
# Healing through developmental catch up

Developmental catch up happens when children gain some of the developmental ground they lost due to early childhood adversity. Environment impacts brain development, and it can open the door to healing. Remember the example of a helpful feedback loop. In a helpful loop, the more times a child practices trusting a caregiver, positive self-talk, or emotion regulation, the easier it will be.

Brain pathways can be influenced by both the behavior of a child and his or her caregiver. Meltdowns, perceived disrespect, and dishonesty can be a result of abnormal brain development. Thankfully, with the right nurture and guidance, children can regain some or even most of the development they have lost.

A field of white daisies with thin green stems, set against a light green background. The text is overlaid in the center.

***With knowledge  
repeated over time,  
see children begin to  
childhood***



*and positive actions  
it is likely that we may  
recover from early  
trauma.*

## CAREGIVING MAKES THE DIFFERENCE

A stable caregiving relationship can be the deciding factor in whether stress is tolerable or toxic. Ensure each child has one uniquely committed caregiver and allow them opportunities to build positive memories with one another.

## STABILITY PROMOTES GROWTH

Helping children know what to expect can minimize unnecessary stress. Offer children a voice in developing routines and structure to their day. Write these down or use visuals to help a child know what is coming.

## PLAY IS CHILDREN'S WORK

Play gives children the confidence to overcome challenges in a safe environment. Provide learning opportunities throughout different types of play between caregiver and child.

## NURTURE CHANGES BEHAVIOR

“Serve and return” is the term for the back-and-forth interaction between children and responsive caregivers. This includes sharing a child’s focus, encouraging, consoling, and responding to requests for basic needs like food, rest, and affection.

## LEARNING RESULTS FROM PRACTICE


Remember the feedback loops. Show children examples of healthy choices and practices through real-life modeling and play.

## CAREGIVER HEALTH MATTERS

A child will reflect a caregiver's reaction to stress. Research shows that mindfulness training in parents improves positive behavior in children (cite).

## RESILIENCE CAN BE TAUGHT

Break down stress management into actionable, buildable steps that a child can absorb one piece at a time. Withstanding and overcoming minor to moderate stress - such as taking a test or talking through conflict with a friend - builds awareness of how to work through stress and build confidence to overcome challenges.



***He heals the  
brokenhearted, and binds  
up their wounds.***

***Psalms 147:3***



*Neuroplasticity will not cure every effect of trauma, but it can move children and youth toward fulfilling their potential. It can allow parents and caregivers to influence their children's futures and help them to overcome some of the adversity they wish they had never experienced. Neuroplasticity - the same mechanism that allows our brains to grow abnormally - also makes it possible for them to heal in magnificent, seemingly impossible ways.*

*It's not too late. There is hope.*

*To learn more about vulnerable children and neuroplasticity, visit*

*[https://issuu.com/  
christianalliancefororphans/docs/the\\_  
changing\\_brain\\_single\\_page](https://issuu.com/christianalliancefororphans/docs/the_changing_brain_single_page)*

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