

A series of brief summaries of essential findings from recent scientific publications and presentations by the Center on the Developing Child at Harvard University.

Thriving communities depend on the successful development of the people who live in them, and building the foundations of successful development in childhood requires responsive relationships and supportive environments.

Beginning shortly after birth, the typical “serve and return” interactions that occur between young children and the adults who care for them actually affect the formation of neural connections and the circuitry of the developing brain. Over the next few months, as babies reach out for greater engagement through cooing, crying, and facial expressions—and adults “return the serve” by responding with similar vocalizing and expressiveness—these reciprocal and dynamic exchanges literally shape the architecture of the developing brain. In contrast, if adult responses are unreliable, inappropriate, or simply absent, developing brain circuits can be disrupted, and subsequent learning, behavior, and health can be impaired.

1 Because responsive relationships are both expected and essential, their absence is a serious threat to a child’s development and well-being. Sensing threat activates biological stress response systems, and excessive activation of those systems can have a toxic effect on developing brain circuitry. When the lack of responsiveness persists, the adverse effects of toxic stress can compound the lost opportunities for development associated with limited or ineffective interaction. This multifaceted impact of neglect on the developing brain underscores why it is so harmful in the earliest years of life and why effective early interventions are likely to pay significant dividends in better, long-term outcomes

in educational achievement, lifelong health, and successful parenting of the next generation.

2 Chronic neglect is associated with a wider range of damage than active abuse, but it receives less attention in policy and practice. Science tells us that young children who experience significantly limited caregiver responsiveness may sustain a range of adverse physical and mental health consequences that actually produce more widespread developmental impairments than overt physical abuse. These can include cognitive delays, stunting of physical growth, impairments in executive function and self-regulation skills, and disruptions of the body’s stress response.

Science Helps to Differentiate Four Types of Unresponsive Care

	OCCASIONAL INATTENTION	CHRONIC UNDER-STIMULATION	SEVERE NEGLECT IN A FAMILY CONTEXT	SEVERE NEGLECT IN AN INSTITUTIONAL SETTING
Features	Intermittent, diminished attention in an otherwise responsive environment	Ongoing, diminished level of child-focused responsiveness and developmental enrichment	Significant, ongoing absence of serve and return interaction, often associated with failure to provide for basic needs	“Warehouse-like” conditions with many children, few caregivers, and no individualized adult-child relationships that are reliably responsive
Effects	Can be growth-promoting under caring conditions	Often leads to developmental delays and may be caused by a variety of factors	Wide range of adverse impacts, from significant developmental impairments to immediate threat to health or survival	Basic survival needs may be met, but lack of individualized adult responsiveness can lead to severe impairments in cognitive, physical, and psychosocial development
Action	No intervention needed	Interventions that address the needs of caregivers combined with access to high-quality early care and education for children can be effective	Intervention to assure caregiver responsiveness and address the developmental needs of the child required as soon as possible	Intervention and removal to a stable, caring, and socially responsive environment required as soon as possible

With more than a half million documented cases in the U.S. in 2010 alone, neglect accounts for 78% of all child maltreatment cases nationwide, far more than physical abuse (17%), sexual abuse (9%), and psychological abuse (8%) *combined*. Despite these compelling findings, child neglect receives far less public attention than either physical abuse or sexual exploitation and a lower proportion of mental health services.

3 Studies on children in a variety of settings show conclusively that severe deprivation or neglect:

- **disrupts the ways in which children’s brains develop and process information**, thereby increasing the risk for attentional, emotional, cognitive, and behavioral disorders.
- **alters the development of biological stress-response systems**, leading to greater risk for anxiety, depression, cardiovascular problems, and other chronic health impairments later in life.
- **is associated with significant risk for emotional and interpersonal difficulties**, including high levels of

negativity, poor impulse control, and personality disorders, as well as low levels of enthusiasm, confidence, and assertiveness.

- **is associated with significant risk for learning difficulties and poor school achievement**, including deficits in executive function and attention regulation, low IQ scores, poor reading skills, and low rates of high school graduation.

4 The negative consequences of deprivation and neglect can be reversed or reduced through appropriate and timely interventions, but merely removing a young child from an insufficiently responsive environment does not guarantee positive outcomes. Children who experience severe deprivation typically need therapeutic intervention and highly supportive care to mitigate the adverse effects and facilitate recovery.

For more information, see “The Science of Neglect: The Persistent Absence of Responsive Care Disrupts the Developing Brain” and the Working Paper series from the Center on the Developing Child at Harvard University. www.developingchild.harvard.edu/resources/

IMPLICATIONS FOR POLICY AND PROGRAMS

Science tells us that repeated and persistent periods of prolonged unresponsiveness from primary caregivers can produce toxic stress, which disrupts brain architecture and stress response systems that, in turn, can lead to long-term problems in learning, behavior, and both physical and mental health. These advances in science should inform a fundamental re-examination of our approaches to the identification, prevention, reduction, and mitigation of neglect and its consequences, particularly in the early years of life.

- **Address the distinctive needs of children who are experiencing significant neglect.** The immediate circumstances and long-term prospects of neglected children could be enhanced significantly by: (1) disseminating new scientific findings to child welfare professionals and focusing on the implications of this evidence for practice; (2) supporting collaboration between child development researchers and service providers to develop more effective prevention and intervention strategies; (3) coordinating across policy and service sectors to identify vulnerable children and families as early as possible; and (4) creating contexts for cooperation among policymakers, family court judges, and practitioners to improve access to non-stigmatizing, community-based services.
- **Invest in prevention programs that intervene as early as possible.** The earlier in life that neglected children receive appropriate intervention, the more likely they are to achieve long-term, positive outcomes and contribute productively to their communities. Key personnel in the primary health care, child welfare, mental health, and legal systems can work together to assure the earliest possible identification of families that require preventive assistance as well as children who need therapeutic intervention. Because child neglect often co-occurs with other family problems (particularly parental mental health disorders and addictions), specialized services that address a variety of medical, economic, and social needs in adults present important opportunities to identify and address neglectful circumstances for young children. Policies and programs that provide preventive interventions in high-risk situations before the onset of neglect present a particularly compelling goal.

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