

# Early Childhood Experiences, Brain Architecture and Public Safety

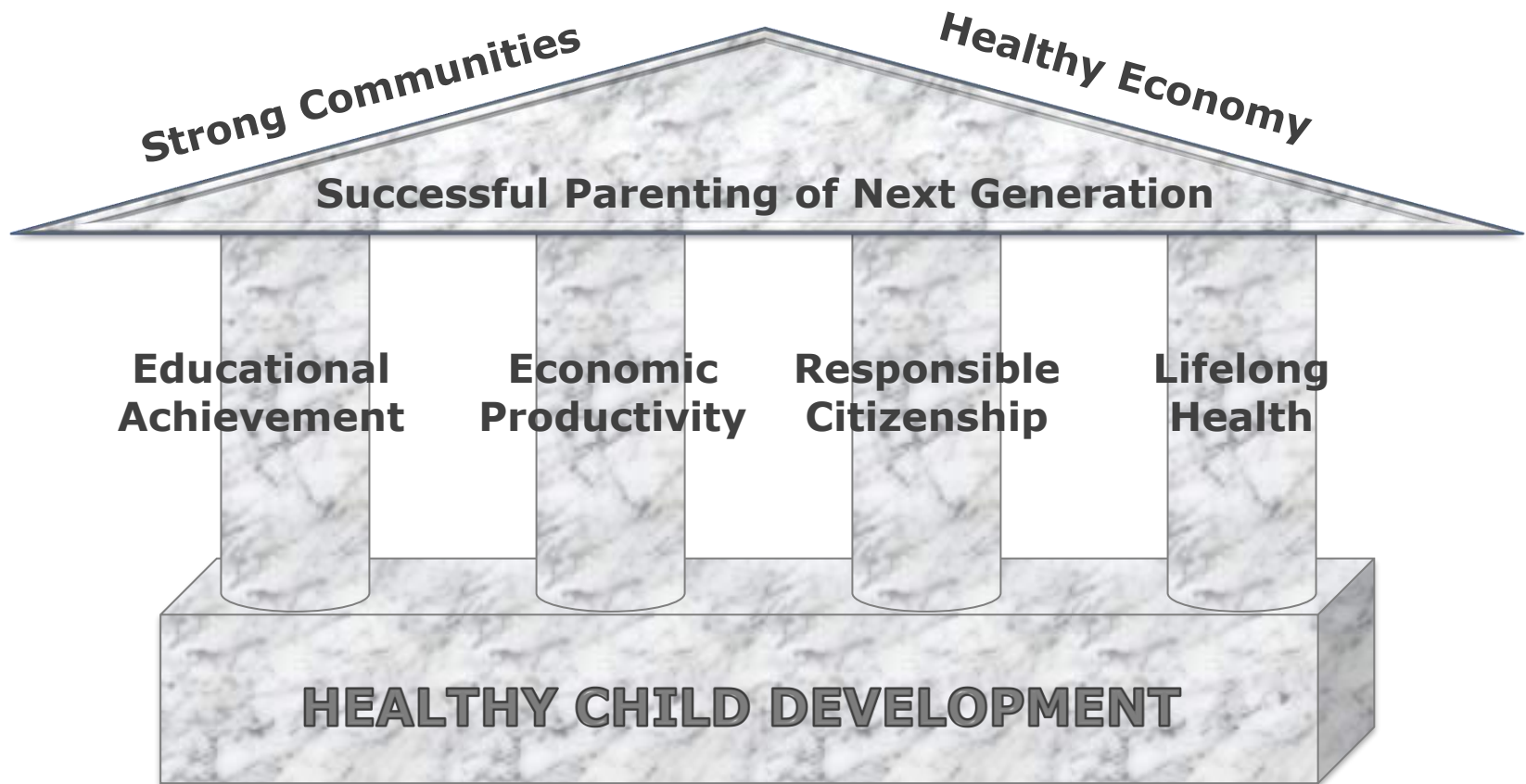
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# The Foundation of a Successful Society is Built in Early Childhood



# **Experience Shapes Brain Architecture by Over- Production Followed by Pruning (700 synapses formed per second in the early years)**

<https://www.youtube.com/watch?v=VNNsN9IJkws>

# The Brain Develops in the Context of Relationships



# Serve and Return Interactions Support the Development of Secure Relationships

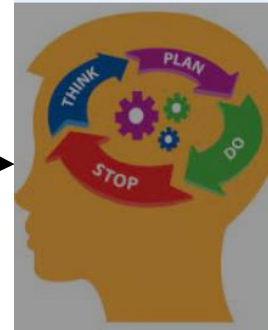




# Two Pathways to Responsible Adolescence



Autonomy  
Support



Executive  
Functions

Responsible  
Makes  
Good Choices  
(Mostly)



Serve and Return  
Relationships



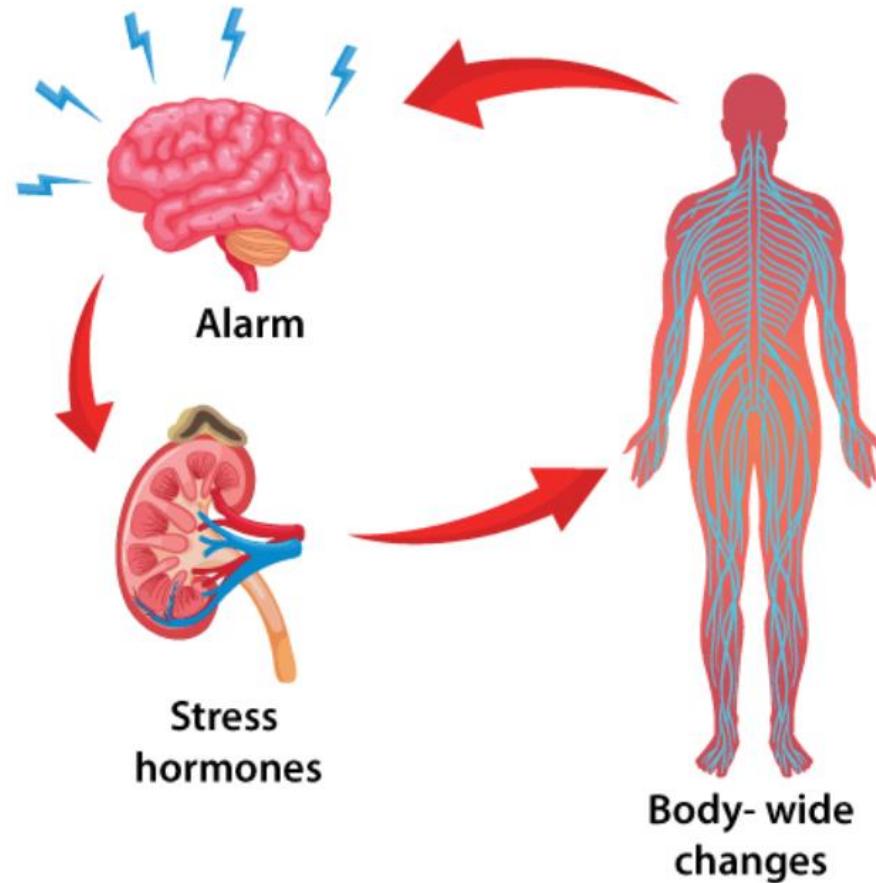
Committed  
Compliance



Authoritative  
Parenting

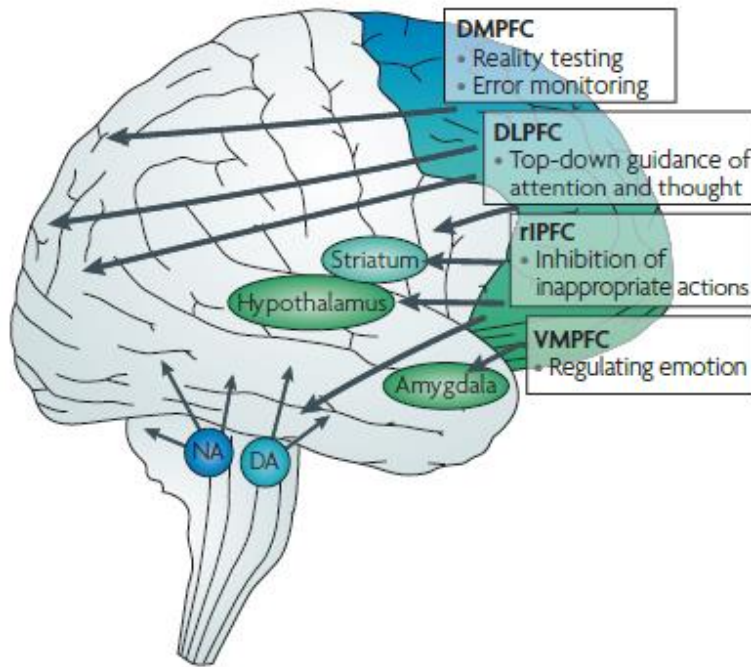
# Toxic Stress

## (Chronic Stress Activation)



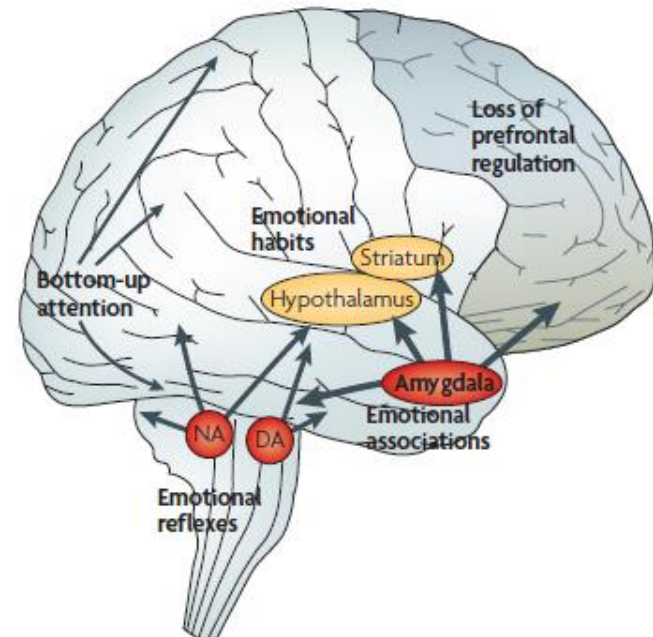
# Stress Weakens Prefrontal (Reasoning) Networks in the Brain

a Prefrontal regulation during alert, non-stress conditions



Reasoning Brain

b Amygdala control during stress conditions



Reactive, Reflexive Brain



Harsh Parenting

Frightening  
Behavior

Parents Fighting/  
IPV

Low Serve and  
Return

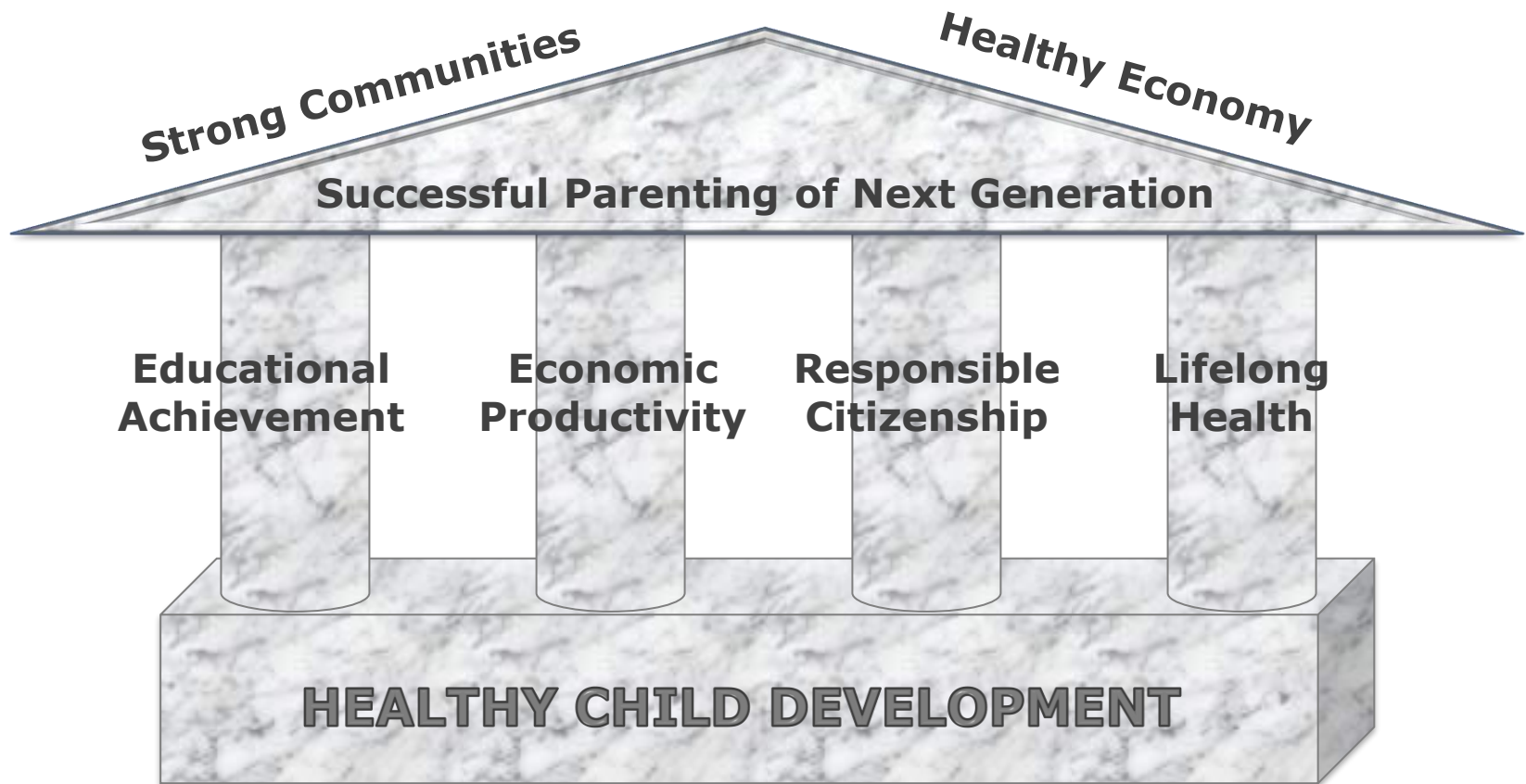


**Stressors**

# Shift the Odds for Families and Children

- Laws and Policies that create stability not disruptions for families
- Early intervention for families at risk, e.g., home visiting programs
- High quality early education programs beginning in infancy for high risk families
- Mental health and substance abuse services available to all families in need

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# For More Information

<http://www.cehd.umn.edu/icd/>

<http://www.developingchild.net>

