

## CORTISOL OVERLOAD

Babies' brains are on fire in Kansas,  
overloaded with toxic levels of the  
stress hormone cortisol.

PANIC

**WHAT HAPPENS WHEN BABIES AND TODDLERS FACE ADVERSE FAMILY CIRCUMSTANCES?**  
A growing body of research on brain development connects adversity to toxic levels of the stress hormone cortisol. Unlike children with normal cortisol patterns that peak early in the day and decrease steadily until bedtime, children in families facing adversity have cortisol levels that are constantly elevated.



**A CONSTANT HIGH LEVEL OF CORTISOL CAN HAVE DEVASTATING EFFECTS ON A CHILD'S GROWTH AND DEVELOPMENT**—including cycles of behavior challenges, school problems, and troubled adulthood. For example, a study at Stanford University showed that toxic levels of cortisol can shrink the size of the hippocampus, a brain structure important in memory processing and emotional regulation. It can also link elevated cortisol levels to depression, PTSD, anxiety, antisocial behavior, and increased risk of alcohol abuse.



► **POSITIVE:**  
Brief increases in heart rate  
and elevation in stress  
hormone levels.

► **TOLERABLE:**  
Serious long-term stress  
responses buffered by  
supportive relationships.