*Vocab to preview: look up only if you don’t know the word*

1. Danger
2. Toxic
3. Stress
4. Harm
5. Pediatricians
6. decade
7. Scientific research
8. Threat of violence
9. Chronic
10. neglect
11. Increase
12. Hostile
13. Overwhelm
14. Stress hormones
15. Cortisol
16. Metabolism

**A Poverty Solution That Starts With a Protection in Childhood** By [NICHOLAS D. KRISTOF](http://topics.nytimes.com/top/opinion/editorialsandoped/oped/columnists/nicholasdkristof/index.html?inline=nyt-per) 1/7/ 2012

Maybe the biggest danger children face isn’t guns, swimming pools or speeding cars. Instead, scientists think that it may be “toxic stress” early in life, or even before birth. This month, the American Academy of Pediatrics is making a warning that this toxic stress can harm children for life.

This is a “[policy statement](http://aappolicy.aappublications.org/cgi/reprint/pediatrics;129/1/e224.pdf)” from a professional association of pediatricians, coming from two decades of scientific research. This information is something that doctors and medical institutions must pay attention to. This information can also help us make changes to levels of poverty and crime.

Toxic stress can come from parental abuse of alcohol or drugs. It can occur in a home where children experience violence or the threat of violence. Maybe it comes from chronic neglect — a child cries and nobody comes to help. Affection seems to make toxic stress go down — so parents need to give hugs and lullabies! Scientists think that stress increases when a child feels threats and dangers but no protector – nobody is nearby to help.

Information from a dangerous or hostile environment overwhelm an infant, or even a fetus, with stress hormones like cortisol in ways that can hurt or interrrupt the body’s metabolism or the parts of the brain. The result is that children are sometimes permanently damaged. Even many years later, as adults, they are more likely to have heart disease, obesity, diabetes and other physical sicknesses. They are also more likely to have difficulty in school, get angry quickly and get in trouble with the police.

The most important period seems to be from conception through early childhood (age 2-3). After that, the brain is less flexible and has trouble being changed or reorganized. “You can change behavior later, but you can’t re-create damaged brain structure,” notes Jack P. Shonkoff, a Harvard pediatrician who has been a leader in this area of study. “We’re beginning to get a strong biological model of why kids who have experienced difficult life problems have trouble learning.”

This new research looks at an uncomfortable truth: Poverty is difficult to change partly because of self-destructive behaviors. Children from poor homes often do well in school, but other children may skip school, abuse narcotics, break the law, and have trouble staying in a marriage and a job. Then their children may repeat this pattern and do the same things.

The idea is that we need to help children the most in the early years of life, or even before birth. One positive example of early help for children is home visitation by childcare experts, like those from the [Nurse-Family Partnership](http://www.nursefamilypartnership.org/). This organization sends nurses to visit poor, vulnerable women who are pregnant for the first time. The nurse teaches the mother not to smoke or use alcohol and drug, and later encourages breast-feeding and good nutrition, while coaxing mothers to cuddle their children and read to them. This program continues until the child is 2.

At age 6, studies have found, these children are only one-third as likely to have behavioral or intellectual problems as others who weren’t enrolled. At age 15, the children are less than half as likely to have been arrested.

Summary: