



## The Biology of Stress and the Science of Hope

*Reproduced from The Facilitator's Guide to Resilience  
preventchildabuse.org/resource/resilience*

### The Problem

Toxic stress is a dangerous biological syndrome caused by abuse and neglect during childhood. It can trigger hormones that wreak havoc on the brains and bodies of children, putting them at greater risk for disease, homelessness, prison time and early death. We need to recognize toxic stress as the largest public health issue of our generation. Through neuroscience we know that the brain is constructed through an ongoing process that begins prenatally and continues into our twenties. While constant toxic stress undermines this development and negatively affects the foundation of the brain, these structural problems can be repaired and allow a person to "bounce back" from traumas experienced.

### The Science

From 1995 to 1997 Dr. Rob Anda of the CDC in partnership with Dr. Vince Felitti of Kaiser Permanente conducted a landmark study with more 17,000 participants called the ACE Study. ACE is an acronym for Adverse Childhood Experiences. There are 10 types of childhood trauma measured; five are personal – physical abuse, verbal abuse, sexual abuse, physical neglect and emotional neglect. The remaining five are related to other family members; a parent who's an alcoholic, a mother who's a victim of domestic violence, a family member in jail, a family member diagnosed with a mental illness and the disappearance of a parent through divorce, death or abandonment. Each type of trauma counts as one. So, a person who's been physically abused, with one alcoholic parent, and a mother who was beaten up has an ACE score of 3. There are many, many other types of childhood trauma but the ACE Study included only these 10 because they were mentioned as

the most common by a group of approximately 300 Kaiser members. Those other traumas were also well studied individually in the research literature.

Since ACEs are so common, society has always acted like repression was the best approach. However because ACEs are common, it is critical to brain development to give children the necessary tools to deal with these experiences. It was discovered that those with an ACE score of 3 or more (out of 10) were twice as likely to develop ischemic heart disease. In fact, it is a stronger predictor than high blood pressure, smoking and cholesterol. Those with a score of 4 are three times as likely to suffer depression. A score of 6 lowers life expectancy by as much as 20 years. Out of the three trillion spent on healthcare in the United States every year, only 5% is spent on preventative medicine.

### The Answer

What is resilience? Resilience is the ability to thrive, adapt and cope despite tough and stressful times. Resilience is a natural counterweight to Adverse Childhood Experiences (ACEs). It is a skill that can be taught, learned and practiced. It doesn't mean that the children "get over" their trauma, but rather because of having a caring adult in their lives with the great power to buffer, rather than cement the effects of the toxic stress, they are better able to process their feelings and therefore process their thoughts. Toxic stress is a chronic activation to stressors when there is no buffering, protection or support.

Change begins by building resiliency. When we respond with compassion to those who have experienced trauma and give families the tools they need to raise healthy children from the start, to develop systems that enable people to thrive, adapt and



cope despite trauma. Action must be taken on behalf of the children, their families and the communities in which they live. We must speak to their hearts by introducing the concepts behind the ACE Study and the lifelong impact of exposure to multiple ACEs and the normalization of ACEs in all of our lives. We must engage their heads through discussion about the role they can play in the lives of the



children and families in their communities.

Knowing what we do about ACEs and brain architecture, we must work to change the conversation when a child is acting out from,

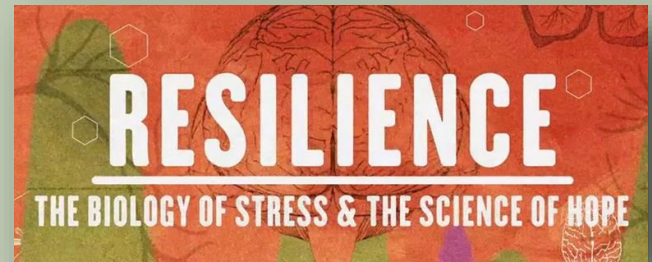
“What is wrong with you?” to “What happened to you and how can we help fix it?” An ACE score of 4 or more makes children 32 times more likely to have problems in school.

Knowing that ACEs can have long term effects on the utilization of our healthcare system, by making the effort now to equip children and their families with the tools needed to overcome these experiences, we can cut down on the costs that future generations will have to bear in healthcare. Eliminating toxic stress among children will have a profound impact on the health and well-being of individuals as well as entire populations. Research is now showing that the presence of supportive relationships is even more critical than the absence of ACEs in promoting well-being.

## Breaking the Cycle

In order to create good outcomes for children we also need to support adults. Many students think that what they're going through is normal – it is their normal because no one has given them a reason to think otherwise. This is how the cycle is perpetuated. A two-generational approach is needed to recognize that the child is experiencing ACEs now and the parent likely experienced ACEs during their own early years.

Thankfully with intervention, science has shown that the effects of ACEs are not permanent. It is imperative learn misfortune isn't normal and that others care about what happens to them and want to help. Teachers report being profoundly moved when they see the impact this has on their students. Parents can also be helped by trained home visit personnel to create the kind of stable, nurturing environment critical for healthy development while overcoming their own traumas. It is therapeutic and necessary to be reminded that a high ACE score is nothing to be ashamed of.



The White Mountains Regional School District's System of Care Office in partnership with the Office of Student Wellness at the NH Dept. of Education is hosting a free screening of **Resilience: The Biology of Stress and the Science of Hope.**

The documentary film, directed by James Redford and Executive Produced by Kate Pritzker, will be screened **Wednesday, March 28th at 6:00 pm at The Rialto Theatre in Lancaster, NH.** Seating will be on a first come, first served basis, and beverages and snacks will be provided.

Researchers have recently discovered a dangerous biological syndrome caused by abuse and neglect during childhood. As the new documentary Resilience reveals, toxic stress can trigger hormones that wreak havoc on the brains and bodies of children, putting them at a greater risk of disease, homelessness, prison time, and early death. While the broader impacts of poverty worsen the risk, no segment of society is immune. Resilience however, also chronicles the dawn of a movement that is determined to fight back. Trailblazers in pediatrics, education, and social welfare are using cutting-edge science and field-tested therapies to protect children from the insidious effects of toxic stress - and the dark legacy of a childhood that no child would choose.

“There are so many factors that impact our students' ability to be present and ready to learn in the classroom,” remarked Mary Steady, administrator of the Office of Student Wellness. “It is our job as educators to acknowledge that and support each child as they work toward their full potential.”

The System of Care office works in collaboration with local communities, the school district, systems and services, families and individuals to support students as they become fully productive members of society. Efforts are focused on several key areas including; early childhood social and emotional learning and development, prevention, safety and support for mental, emotional and behavioral health and generalized wellness efforts. For more information please visit: <https://sites.google.com/sau36.org/wmrdsoc/home>.





# February is National Teen Dating Violence Awareness Month

## Families And Systems Together

February 2018



During the month of February, Teen Dating Violence Awareness Months provides an opportunity for prevention and healing for victims.

According to the Domestic Violence Awareness Project, approximately 1.5 million high school students in the United States experience physical abuse from a dating partner. One-quarter of parents don't talk to their teens about domestic violence.

Teen Dating Violence Awareness Month encourages parents and adolescents to take an inventory of their relationships. Abuse includes physical, psychological or sexual abuse. Visit: [youth.gov](http://youth.gov), [loveisrespect.org](http://loveisrespect.org), [breakthecycle.org](http://breakthecycle.org) for conversation starters and resources.

### NATIONAL TEEN DATING ABUSE HELPLINE

If you or someone you know has been the victim of dating violence, free and confidential help is available 24 hours a day through the National Dating Abuse Helpline.

### HOW TO OBSERVE

Break the cycle. Start the conversation. Use #teenDVmonth and #loveisrespect to share on social media.

### HISTORY

National Teen Dating Violence Awareness and Prevention Week was declared to be the first week in February in 2006. Congress declared the entire month of February to be National Teen Dating Violence Awareness and Prevention Month four years later in 2010.

### Some hard facts:

- Nearly 1.5 million high school students nationwide experience physical abuse from a dating partner in a single year.
- One in three adolescents in the U.S. is a victim of physical, sexual, emotional or verbal abuse from a dating partner, a figure that far exceeds rates of other types of youth violence.
- One in 10 high school students has been purposely hit, slapped or physically hurt by a boyfriend or girlfriend.



Loveisrespect.org is the ultimate resource to empower youth to prevent and end dating abuse. It is a project of the National Domestic Violence Hotline.

