

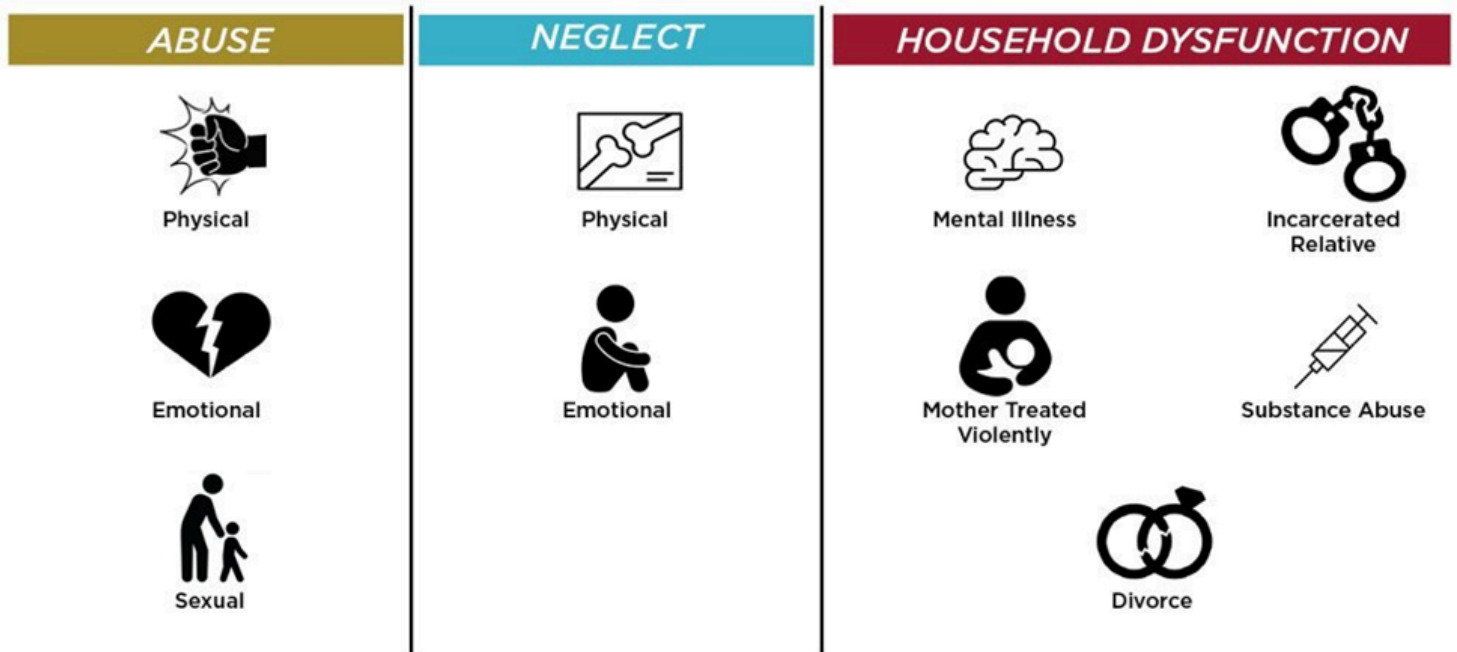


Childhood Trauma & Adverse Childhood Experiences

What is Childhood Trauma?

In 1997, the scientists at Kaiser Permanente and the Centers for Disease Control (CDC) did a landmark study. They asked over 17,000 patients ten questions about experiences they had as children that fell into three areas: abuse, household challenges, and neglect. The study determined 10 adverse childhood experiences (ACEs) were strongly related to negative health outcomes later in life. It also found a “dose response relationship,” that is the more different ACEs you experience the more significant the health outcomes. An ACE score represents how many of the ten ACEs a person had before the age of 18.

The Ten ACEs



The Results of the Study Were Startling

The Kaiser ACEs study showed that 25% of the adults surveyed reported at least one ACE. The majority of those adults (87%) reported more than one experience, with 12.5% of those surveyed reporting four or more ACEs. Translated to the U.S. general population, almost 218 million Americans have had at least one adverse experience, and over 40 million Americans have had four or more ACEs.

It's important to note that the Kaiser ACEs study involved a population that was not socioeconomically skewed to the underprivileged. It was also almost evenly split between males and females; 74.8% were white, and just over 75% had attended college. The average age was 57. All had jobs and good health care.

Abuse and neglect can happen in any household. Bad things can happen to good people through no fault of their own. The important takeaway is that the majority of us have had experiences in our childhoods that affected our behavior as well as our health, and those experiences follow us throughout life.



Further research in Idaho has shown that this isn't a "somewhere else" problem, but in fact it is an Idaho problem, as Idaho's ACEs numbers exceed the national average.

How Do Adverse Childhood Experience Affect Us?

An easy way to visualize ACEs is to picture a scale or a teeter-totter. The more different ACEs a young person has, the weight increases on the other end of the teeter-totter. How difficult this weight is to overcome can be influenced by where the fulcrum (the point on which the teeter-totter rests so it can swing up and down—usually in the middle) is located.

This is where resilience comes in. Resilience in the context of ACEs refers to the ability to adapt and cope despite having faced significant hardship or trauma early in life. Fostering resilience is hugely impactful, as resilient children are likely to transition into resilient, productive adults even if they endured adversity like abuse, household dysfunction, or socioeconomic disadvantage growing up. Resilience allows individuals to thrive beyond expectations given their level of risk exposure.

So back to our teeter-totter, illustrated below: If the location of the fulcrum is reliant on the person's level of resilience, this can affect a person's ability to overcome their ACEs. If the fulcrum is moved to the right to signal low levels of resilience, it makes the weight of those ACEs even harder to overcome.

What Are the Health Impacts of ACEs?

ACEs have been shown to have significant impact on long-term health outcomes in the population, not only in the original CDC study but in hundreds of studies since. For example, in the chart below we see how much more likely those with four or more ACEs are to experience negative health outcomes.



According to a study by Vincent Felitti, a person with 4 or more ACEs is:

- 4.6x** more likely to report feeling **depressed** for 2 weeks or more in a year
- 2.2x** more likely to develop **heart disease**
- 12.2x** more likely to attempt **suicide**
- 2.4x** more likely to have a **stroke**
- 1.9x** more likely to have **cancer**
- 1.6x** more likely to have **diabetes**
- 7.4x** more likely to be an **alcoholic**
- 3.9x** more likely to have **chronic bronchitis or emphysema**

It is important to understand that while these statistics are true with a large group of people, the impact varies between individuals due to a number of factors, which we will discuss later on.



When you look at ACEs, they're actually a stronger predictor of heart disease than any of the traditional risk factors...and yet I was never trained on this in one day in Medical School.

- Dr. Nadine Burke Harris,
Former Surgeon General, California

Behavioral Impacts of ACEs

Trauma can have a profound impact on a young person's life, causing them to behave in ways that are out of character. The effects of trauma can manifest themselves in a multitude of ways, including sudden outbursts of anger, mood swings, and a withdrawal from social situations. A young person who has experienced trauma may also find themselves drawn to a new group of friends or may become unrecognizable to those who know them best.

At a glance, it may seem obvious that if you had bad experiences growing up, you're more likely to behave badly, but it turns out the behavioral changes are less about "behaving badly" and more about real biological changes in your body that need to be addressed as part of addressing behavior.

To understand why ACEs affect biological changes in your body, we first have to make a detour and understand a concept known as "toxic stress."

Toxic stress refers to the extensive or prolonged activation of the body's stress response systems in the absence of protective relationships. It relates to ACEs in the following ways:

- ACEs such as abuse, neglect, household dysfunction, or growing up in poverty can lead to frequent or continuous activation of a child's stress response systems.
- This frequent activation of the sympathetic nervous system and flooding of stress hormones is known as "toxic stress" because it disrupts the development of neural, cardiovascular, immune, and metabolic systems.
- Children exposed to high levels of toxic stress without adequate support/protection are at risk for developing permanent changes in brain architecture and physiology. This puts them at lifelong risk for chronic disease and cognitive impairment.
- The more ACEs a child experiences, the higher their exposure to situations that can lead to toxic stress. Without buffers like stable relationships, these frequent stress responses disrupt healthy development.
- Toxic stress derails normal development and has impacts on learning, behavior, and both physical and mental well-being that can persist throughout a child's life and into adulthood.



Essentially toxic stress is the culmination of severe and chronic adversity without protection, leading to physiological disruptions that can permanently alter health across the lifespan.

The impact of a high ACE score and its associate, toxic stress, affects the body in a number of ways:

- It affects the nucleus accumbent, the pleasure and reward center of the brain associated with substance dependence.
- It inhibits the prefrontal cortex, which is necessary for impulse control.
- It creates measurable differences in the amygdala—the brain’s fear response center.

The physical, biological impact of ACEs goes even further.

Yale researchers recently found that children who faced chronic toxic stress showed changes in how their genes were expressed “across the entire genome,” in genes that not only oversee the stress response, but also in genes implicated in a wide array of adult diseases.

The result of these real biological impacts of ACEs is that even when traditional risk factors are absent, adults still face a higher likelihood of negative health outcomes. For example, people with an ACE score of 7 who don’t drink, don’t smoke, are not diabetic, and do not have high cholesterol still have a 360% greater risk of heart disease.

The impacts of ACEs go far beyond health. Study after study has shown significant impacts to educational success, substance abuse, juvenile crime, mental health, and economic success.

How Do We Counter the Impact of ACEs?

Fortunately for those who have experienced a number of ACEs, they are not a sentence or a destiny. Like other ailments, the impact of ACEs can be treated, just not with a vaccination or a pill. There are three key elements to successfully treating ACEs:

- Provide a counterbalance: positive childhood experiences (PCEs)



- Move the fulcrum: build resilience
- Lift them up by reducing the weight of their past: counseling and therapy

As you will see, for most youth, it is important to address all three elements.

Understanding Positive Childhood Experiences (PCEs)

Positive childhood experiences (PCEs) are experiences in childhood that build a child's sense of belonging and connection.. PCEs don't heal the trauma, but research shows they can moderate the long-term negative impacts. Research shows there are seven core PCEs for youth:

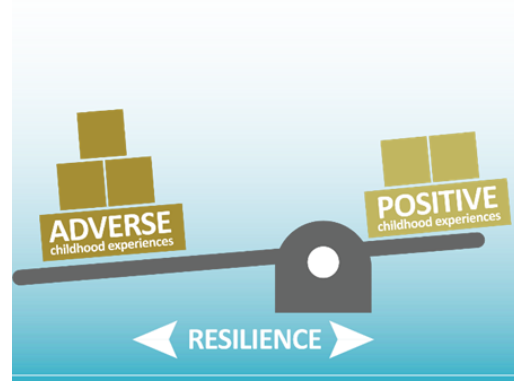
- Ability to talk with family about feelings
- Family stands by youth during difficult times
- Participating in community traditions
- Sense of belonging in school
- Feeling of support from friends
- At least two non-parent adults who take a genuine interest (developmental relationships)
- Feel safe and protected by an adult in the home

PCEs place some weights on the other side of our teeter-totter, opposite the ACEs. The more PCEs we can stack up, the more we can reduce the impact of ACEs .

As you can see, we have reduced the impact, but we still have more to do. That is where are next element comes into play.

Resilience

Science tells us that some children develop resilience, or the ability to overcome serious hardship, while others do not. People are not born with resilience, but it can be





learned, cultivated, and practiced. Resilience “moves the fulcrum” to the left, reducing the weight of ACEs.

The single most common factor for children who develop resilience is at least one stable and committed relationship with a supportive parent, caregiver, or other adult (a developmental relationship). Other steps in growing resilience include:

- Developmental relationships with one or more adults
- Building a sense of self-efficacy and perceived control
- Providing opportunities to strengthen adaptive skills and self-regulatory capacities
- Mobilizing sources of faith, hope, and cultural traditions

Developmental relationships occur both in creating PCEs and in building resilience in our youth. They create the opportunities for PCEs that counterbalance the weight of ACEs.

The internalization of developmental relationships builds resilience by creating skills and establishing a belief system that reduces the weight of adversity. For example, one element of developmental relationships is expressing care, the action we do to show that they matter to us. The belief system that forms in the youth is “I matter.”

Former Search Institute President and CEO Peter L. Benson (2012) states, “After decades of forming hypotheses, conducting surveys, crafting and rewriting definitions, analyzing data, and writing journal articles, Search Institute researchers and practitioners have arrived at a surprisingly simple conclusion: nothing—nothing—has more impact in the life of a child than positive relationships.”

For more than 60 years, Search Institute research has been used all over the world over to strengthen young people’s relationships and help them thrive. The research of the Search Institute has identified the power of youth–adult relationships, but even more importantly helped us understand what makes a relationship between youth and a caring adult into a “developmental relationship.”

The Search Institute identified five key elements common to developmental relationships:



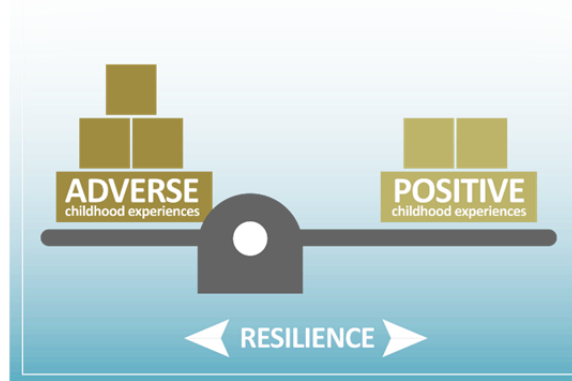
Elements	Actions
Express Care	Show me that I matter to you
Challenge Growth	Push me to keep getting better
Provide Support	Help me complete tasks and achieve goals
Share Power	Treat me with respect and give me a say
Expand Possibilities	Connect me with people and places that broaden my world

Remember the fulcrum on which our teeter-totter rests? When we begin building resilience among our youth, we begin to shift the fulcrum to the left, which reduces the weight of our ACEs and increases the “weight” of our PCEs.

For youth who have experienced ACEs to thrive, we need one more very important element to lift them up. That is where our third element comes in.

Therapy and Counseling

While building resilience with developmental relationships and PCEs are important and impactful, most who have multiple ACEs need more to truly thrive. To truly heal and move forward stronger, more resilient, and with renewed hope, many of your youth need trauma-informed counseling and therapy.





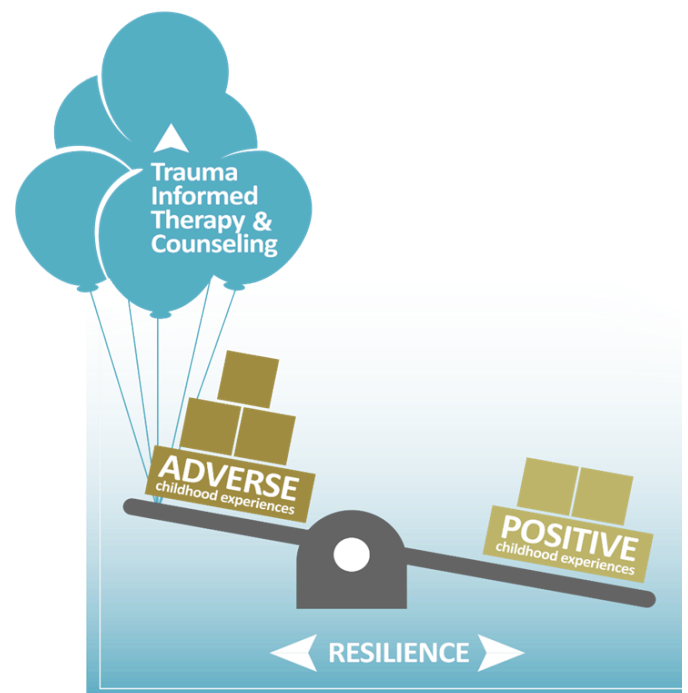
Trauma-informed counseling and therapy doesn't take away your past, but it does lift us up by reducing the weight of the impact of our past. It does not erase the memory, but it can provide healing of the impact. There are a number of evidence-based therapies that have been shown effective for youth dealing with ACEs.

At Idaho Youth Ranch our experienced therapists are experts in treating trauma in adolescents. There are four main therapies we use:

- ▶ Cognitive Behavioral Therapy
- ▶ Eye Movement Desensitization and Reprocessing (EMDR) therapy
- ▶ Dialectical Behavior Therapy (DBT)
- ▶ Equine-Assisted Psychotherapy

The impacts of these therapies doesn't stop with what we feel and how we behave. There is more and more evidence that they can begin to reverse the biological changes discussed earlier. In a study of Vietnam veterans suffering from PTSD, among those that received trauma-focused CBT who were deemed to have a successful outcomes, researches were actually able to see the resulting changes in restoring the epigenetics in their genes.

When you put all three elements together to treat and counterbalance the impacts of ACEs, we give our youth the best chance to not only heal, but thrive, emerging stronger even than those who never had the same adverse experiences.





Resources

[Adverse Childhood Experiences](#)

Centers for Disease Control & Prevention

[Kaiser Permanente Original ACEs Study](#)

Centers for Disease Control & Prevention

[The Developmental Relationships Framework](#)

Search Institute

[How to increase resiliency in children overcoming Adverse Childhood Experiences \(ACEs\)](#)

Children's Hospital of Orange County

[Resilience: A Powerful Weapon in the Fight Against ACEs](#)

Center for Child Counseling