

# The Pediatric ACEs and Related Life-events Screener (PEARLS)

## Frequently Asked Questions (FAQs)

The PEdiatric ACEs and Related Life-events Screener (PEARLS) was developed by the Bay Area Research Consortium on Toxic Stress and Health (BARC), a partnership between the Center for Youth Wellness, UCSF Benioff Children's Oakland, and the Adversity Bio-Core (ABC) Bank at the UCSF School of Medicine and Pharmacy. The tool was designed to identify exposure to childhood adversity and events that may increase a child's risk for toxic stress and negative health outcomes. The tool is currently available, free of charge, and is recommended for use in all child-serving medical practice settings.

### **What does the PEARLS tool screen for?**

The PEARLS screens for a child's exposure to Adverse Childhood Experiences (ACEs) and other potential risk factors for toxic stress (bullying, community violence, food or housing insecurity, etc.) that may increase a child's risk for negative health outcomes. These exposures were selected because they have been linked with poor physical, developmental, and behavioral health outcomes *in childhood and throughout life*.

The PEARLS has two sections: **Section 1** screens for the ACEs tied to lifelong health and wellness challenges in the original Felitti and Anda research on ACEs<sup>1</sup>. **Section 2** includes other risk factors for toxic stress not in the original ACE Study, but which have also been found to impact child and adult health. Their potential pathways to affecting health are being investigated in an ongoing BARC study, which actually shares the name PEARLS (although the study's R stands for Resilience because of the study's interventions). The tool's name thus pays homage to its ground-breaking origins.

The PEARLS asks whether an individual has ever experienced:

#### Section 1. Adverse Childhood Experiences (ACEs)

- Abuse (physical, emotional, sexual)
- Neglect (physical, emotional)
- Dysfunction in the household among parents/caregivers (caregiver separation/divorce, domestic violence, substance misuse, incarceration, mental illness)

#### Section 2. Other risk factors for toxic stress not included in the ACE study

- Hardship (food insecurity, housing instability)
- Others significant life events (caregiver's serious physical illness or death, community violence, bullying, discrimination)

### **How was the PEARLS developed?**

The PEARLS tool was developed as part of the BARC Pediatric ACEs Screening and Resilience Study, a partnership between the Center for Youth Wellness, UCSF Benioff Children's Oakland, and the Adversity Bio-Core (ABC) Bank at the UCSF School of Medicine and Pharmacy. The tool's questions were selected through a rigorous scientific process involving a literature review and scan for existing ACEs and trauma screening tools, and expert opinion and analysis. These included foundational work done at the Center for Youth Wellness on the CYW Adverse Childhood Experiences Questionnaire (CYW ACE-Q). The PEARLS tool adapted the CYW ACE-Q, then piloted and iteratively changed it based on pediatrician, parent, and caregiver input. A detailed description of the process of this initial level of validation can be found in [this peer-reviewed article](#).

***Given the BARC's intentional, rigorous, and evolutionary validation process, CYW now recommends that all clinicians use the PEARLS in place of the CYW ACE-Q.***

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<sup>1</sup> Felitti and Anda (1998) ACE Study

## Where can I find the PEARLS tool and what versions are available?

The PEARLS can be downloaded from the [National Pediatric Practice Community on ACEs \(NPPC\)](#) website. To download PEARLS, you will need to become an NPPC member (click “Join” on the website). There are multiple versions based on the child’s age, including parent/caregiver versions for children and adolescents and teen self-reporting, the primary language needed, and whether the person answering is asked to specify which experience(s) happened or simply share a total number.

### Age and Reporter

- **Child P/C:** Parent or caregiver reports on a child’s (ages 0-11) experience; includes 17 questions
- **Teen P/C:** Parent or caregiver reports on a teen’s (ages 12-19) experience; includes 19 questions
- **Teen SR:** Teen (ages 12-19) self-reports on his or her own experiences; includes 19 questions

### Formats

- **“De-identified”:** Respondents simply count the number of experiences from a list of what could have happened to their child or themselves, and write down the total number that happened (*they do not specify which adverse experience happened*). This version is a quick assessment of risk for toxic stress intended for use in a busy pediatric practice and with the assumption that further assessment or identification of the items will occur with follow up or referral
- **“Identified”:** Respondents specify which experience(s) happened to their child or themselves (if using the self-report version) by choosing “yes” or “no” for each question. It provides the provider with specific information about which experiences their patient has encountered.

Practices seeking information about which version(s) and format(s) may best fit their providers and patients can read more on the [NPPC website](#) or contact the [NPPC team](#).

## Is the PEARLS validated?

The **PEARLS Child P/C** has been found to have high face validity. This means it’s highly likely the items on the tool are measuring actual exposure to ACEs and related life-events among children, even though humans (as opposed to other information sources) are reporting. This phase of validation included cognitive interview and item wording refinement with parents/caregivers, physicians and clinic staff, as outlined in the [BARC manuscript published in December 2018 on PLOS One](#).

The tool continues to be understood as part of an ongoing randomized, controlled trial (of the same name). The study’s investigators believe they will soon be able to further validate the PEARLS based on children’s health outcomes and biological markers of toxic stress.

**PEARLS Teen P/C** and **PEARLS Teen SR** are not currently part of the ongoing study and are therefore not currently receiving the same level of validation testing. However, the questions on these versions for teenagers are identical to those on the child version, except the teen versions include an additional 2 questions identified as important by community-based participatory research with youth in San Francisco<sup>2</sup>. The additional teen items are *intimate partner violence* and *bullying experienced by the teen*, which have been found to impact health. These items have been tested clinically as part of the CYW ACE-Q tools for parents and caregivers reporting on their teens’ experiences and teens reporting for themselves.

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<sup>2</sup> Purewal Boparai, Sukhdip; Marie, Tiffani; Aguayo, Eduardo; Brooks, Jordan; Juarez, Estefany; Soriano, Sheana; Waters, Alasia; Donaldson, Jaquez; Reagans, Joseph; Anguiano, Gracee; and Ipsen, Allison (2017) "Adversity and academic performance among adolescent youth: a community-based participatory research study," Journal of Adolescent and Family Health: Vol. 8 : Iss. 1 , Article 2. <https://scholar.utc.edu/jafh/vol8/iss1/2>

**Where can I get more information or training on how to use the PEARLS?**

This tool was made publicly available for use as of its first peer-reviewed journal article published December 12, 2018. For more detailed information about how to use the tool or for training assistance, [please contact the CYW NPPC](#):

[National Pediatric Practice Community on ACEs \(NPPC\)](#)

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