What Happens After ACE Screening?
Effective Clinical Response

Rachel Gilgoff MD
Objectives

● Describe methods for assessing **protective factors** and **symptoms** related to ACEs and toxic stress

● Describe evidence-based strategies for toxic stress regulation which can help patients reduce stress and build resilience:
  ○ Healthy relationships;
  ○ Sleep;
  ○ Nutrition;
  ○ Physical activity;
  ○ Mindfulness;
  ○ Access to Nature; and
  ○ Mental health.
Clinical response to identification of ACEs and increased risk of toxic stress should include:

1. Applying principles of **trauma-informed care** including establishing trust, safety, and collaborative decision-making.

2. Supplementing usual care for **ACE-Associated Health Conditions** by providing **patient education** on toxic stress and offering strategies to regulate the stress response (using seven evidence-based strategies for toxic stress regulation)

3. Validating existing **strengths and protective factors**

4. **Referrals** to patient resources or interventions, such as educational materials, social work, school agencies, care coordination or patient navigation, community health workers.

5. **Follow-up** as necessary, using the presenting ACE-Associated Health Condition(s) as indicators of treatment progress.
ACEs and Toxic Stress Risk Assessment Algorithm - Pediatrics

Full algorithm is available at: ACEsAware.org/clinical-assessment

- **Low Risk**
  - Score of 0
  - Without associated health conditions
    - Provide education, anticipatory guidance on ACEs, toxic stress, and buffering factors.

- **Intermediate Risk**
  - Score of 1-3
  - With associated health conditions
    - Provide education about toxic stress, its likely role in patient's health condition(s), and buffering.

- **High Risk**
  - Score of 1-3
  - With or without associated health conditions

- **Unknown Risk**
  - Score unknown (incomplete)
  - Provide education on ACEs, toxic stress, and buffering factors. Re-offer at next physical.

- Assess for protective factors and jointly formulate treatment plan.
  - Link to support services and interventions, as appropriate.
Assess for ACE-Associated Health Conditions

- ADHD
- Aggression/fighting
- Alcohol/Drug Use
- Anxiety
- Depression
- Developmental Delay
- Enuresis
- Encopresis
- Headaches
- Learning Problems
- Pain
- PTSD

- Cardiovascular Disease
- Diabetes
- Failure to Thrive
- Hepatitis
- Late menarche
- Overweight
- Obesity
- Stroke

- Allergies
- Arthritis
- Asthma
- COPD
- Eczema
- Increased infections
- Urticaria
Assess for Protective Factors

Protective factors: “intrinsic or extrinsic conditions or attributes that mitigate risk for toxic stress”

Intrinsic Factors
- Curiosity in learning
- Ability to pay attention
- Ability to regulate emotions
- Neuro, Endo, Metabolic, Immune Genetic and Epigenetic factors

Extrinsic Factors
- Buffering relationships
- Supportive environments
- Community resources

Evidence-based Strategies for Toxic Stress Regulation

Figure 9. Employing the evidence-based strategies for toxic stress regulation can help patients reduce stress and build resilience. Reproduced with permission from ACEs Aware.26
A Toxic Stress Action Plan!

**Low Risk**
- ACE screen (Part 1)
- Score of 0
- Assess for associated health conditions
- Determine response and follow-up
- Provide education, anticipatory guidance on ACEs, toxic stress, and buffering factors.

**Intermediate Risk**
- Score of 1-3
- Without associated health conditions
- With associated health conditions
- Provide education about toxic stress, its likely role in patient’s health condition(s), and buffering.

**High Risk**
- Score of 1-3
- With or without associated health conditions
- Assess for protective factors and jointly formulate treatment plan. Link to support services and interventions, as appropriate.

**Unknown Risk**
- Score unknown (incomplete)
- Provide education on ACEs, toxic stress, and buffering factors. Re-offer at next physical.
## Healthy Relationships

- **Anticipatory guidance:**
  - We live longer!
  - Hugs are protective!

- Talk Read Sing and Reach Out and Read
- Encourage “time in” – with your children, friends and relatives!
- Connect with community programs
- Support groups

- Home visiting programs, Parenting programs
- Mental health, Family Therapy, and targeted dyadic interventions:
  - Attachment and Biobehavioral Catch-up (ABC), Child-Parent Psychotherapy (CPP), and Parent-Child Interaction Therapy (PCIT)
Sleep

- Anticipatory guidance:
  - Sleep disturbances are common.
  - Healthy sleep can improve neurological, endocrine, metabolic and immune regulation
  - Sleep hygiene

- Additional support: night light, weighted blanket, relaxation techniques, journaling, or conversations with a trusted adult/friend to address specific worries.
- Meditation, yoga, exercise during the day

- Medications
- Sleep Study and referral to sleep speciality
- Referral to mental health for cognitive-behavioral therapies.
Nutrition

● Anticipatory guidance:
  ○ Stress can INCREASE or DECREASE appetite
  ○ Stress can increase cravings for high-fat and high-sugar foods
  ○ Western diet associated with increased inflammation
  ○ Anti-inflammatory diet: fruit, vegetables, fish, whole grains

● Consider Omega-3 Fatty Acid supplementation
● Trauma-informed weight loss programs
● Tie into other domains - eat with family and friends, physical activity, mindful eating
● Nutritionist or Dietician support

● Referral to needed specialist (anorexia clinics, obesity clinics, Cardiology, Endocrinology, GI, etc.)
Physical Activity

- Anticipatory guidance:
  - Physical activity - improved memory, attention, cognition, mental health, immune function
  - May help promote the positive stress response, metabolize increased energy associated with anxiety or stress, and increase resilience factors

- Brief physical activity breaks to release excess energy
- Moderate-intensity aerobic activity, for longer durations, three times or more a week
- Activities that combine physical activity with self-regulation skills and breathing techniques, such as martial arts and yoga, may also be beneficial

- Low mood and stress have been identified as barriers to exercising; professional support may help patients overcome these barriers.
Mindfulness Practices

- **Anticipatory guidance:**
  - Nonjudgmental, moment-to-moment awareness that involves attention, intention, and a kind attitude
  - Can support trauma healing and regulation of stress
  - Improved cardiovascular and immune health

- **Online and downloadable apps**
- **Other mind-body practices:** including tai chi, yoga, acupuncture, breathing techniques, massage therapy, and neurofeedback.

- **Mindfulness-based stress reduction (MBSR)**
Nature

- Anticipatory guidance:
  - Parks, local green spaces, playgrounds, and even indoor plants.
  - Decreases diabetes, depression, heart rate, blood pressure, and mortality.
  - Calms the stress response system and increases healthy behaviors such as physical activity, mindfulness, and relational health.

- Park Prescriptions! Parkrx.org
- Encourage green space.
- Providers can recognize that there may be cultural, community, and policy barriers to equal access to nature. Access to nature is a social justice health issue.

- Referral to ecotherapy, wilderness therapy, or adventure-based treatment programs.
Mental Health

● Anticipatory guidance:
  ○ Mental health providers can help patients build skills and capacities for resilience, directly address trauma-related symptoms, provide a safe, supportive, and trusting clinical relationship
  ○ Behavioral and mental health programs may improve physical health and neuro-endocrine-immune-metabolic dysregulation

● Address barriers to mental health services (access, engagement, stigma)
● Consider: multidisciplinary teams, integrated behavioral and mental healthcare, care coordination, and medical home models
● Linguistic and cultural congruence between provider and patient is critical

● Referral to Developmental and Behavioral Pediatrics
● Referral to Mental Health
● Medications
## Evidence-Based Mental Health Therapies

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Ages</th>
<th>General Description</th>
</tr>
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<tbody>
<tr>
<td><strong>Child-Parent Psychotherapy</strong></td>
<td>Birth to 6 years</td>
<td>Dyadic intervention for young children and their caregivers that supports family strengths and relationships. [596,597,994]</td>
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<tr>
<td><strong>Parent-Child Interaction Therapy</strong></td>
<td>2 - 12 years</td>
<td>Dyadic parent training treatment that emphasizes improving the quality of the parent-child relationship and interactions. [995-997]</td>
</tr>
<tr>
<td><strong>Cue-centered therapy</strong></td>
<td>8 - 18 years</td>
<td>Protocol of 15 sessions through which children and caregivers learn about traumatic stress, how to cope rather than avoid, and the value of verbalizing their life experiences. [998,999]</td>
</tr>
<tr>
<td><strong>Trauma-focused cognitive behavioral therapy (TF-CBT)</strong></td>
<td>Verbal children and adults</td>
<td>A structured, short-term treatment model for children and adults who have experienced trauma. [1000-1002]</td>
</tr>
<tr>
<td><strong>Eye movement desensitization reprocessing (EMDR)</strong></td>
<td>Verbal children and adults</td>
<td>Focuses on helping clients resolve unprocessed traumatic memories. [1003-1005]</td>
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<tr>
<td><strong>Family systems therapy</strong></td>
<td>Verbal children and adults</td>
<td>Supports resolving family conflict or issues. [1006,1007]</td>
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<tr>
<td><strong>Cognitive processing therapy</strong></td>
<td>Adolescents and adults</td>
<td>A type of CBT, generally 12 sessions, that helps modify maladaptive thinking related to their trauma. [1008]</td>
</tr>
<tr>
<td><strong>Prolonged exposure therapy</strong></td>
<td>Adolescents and adults</td>
<td>A CBT approach that helps clients gradually approach their memories, feelings, and situations of trauma. [1009]</td>
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Thank you!

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