TODAY’S SUMMARY

1. Why ACEs Matter
2. ACE Preliminary Research Indications
3. Best Practices When ACE Scores Are High
4. Case Study Review
1. WHY ACES MATTER
EARLY ADVERSITY HAS A LASTING IMPACT

IDENTIFYING ADVERSE CHILDHOOD EXPERIENCES
Did a parent or other adult in the household often or very often...Swear at you, insult you, put you down, or humiliate you?

Or, act in a way that made you afraid that you might be physically hurt?
Did a parent or other adult in the household often or very often...Push, grab, slap, or throw something at you?

Or, ever hit you so hard that you had marks or were injured?

Did an adult or person at least 5 years older than you ever...Touch or fondle you or have you touch their body in a sexual way?

Or, attempt or actually have oral, anal, or vaginal intercourse with you?
Did you often or very often feel that...No one in your family loved you or thought you were important or special?

Or, your family didn't look out for each other, feel close to each other, or support each other?

Did you often or very often feel that...You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?

Or, your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
Were your parents ever separated or divorced?

Was your mother or stepmother: Often or very often pushed, grabbed, slapped, or had something thrown at her?

Or, sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?

Or, ever repeatedly hit at least a few times or threatened with a gun or knife?
Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

Was a household member depressed or mentally ill, or did a household member attempt suicide?
Did a household member go to prison?
Twenty years of medical research has shown that childhood adversity literally gets under our skin, changing people in ways that can endure in their bodies for decades. It can tip a child’s developmental trajectory and affect physiology. It can trigger chronic inflammation and hormonal changes that can last a lifetime. It can alter the way DNA is read and how cells replicate, and it can dramatically increase the risk for heart disease, stroke, cancer, diabetes—even Alzheimer’s.

In the years since the ACE Study was first released, scientists have looked closely at the relationship between ACEs and autoimmune disease. Research findings show a strong correlation between childhood stress and autoimmune disease in both children and adults.
In partnership with Dr. Felitti and Dr. Anda, researcher Shanta Dube analyzed the data of over fifteen thousand ACE Study participants, looking at their ACE scores and how often they were hospitalized for autoimmune diseases such as rheumatoid arthritis, lupus, type-1 diabetes, celiac disease, and idiopathic pulmonary fibrosis. What Dube found was striking: a person with an ACE score of two or more had twice the odds of hospitalization for autoimmune disease as someone with zero ACEs.
After adjustment for the effects of age at interview and race, women who experienced rising numbers of types of adverse childhood experiences were increasingly likely to see themselves as being at risk of AIDS: Those with one such experience had a slightly elevated likelihood (odds ratio, 1.2), while those with 4-5 or 6-7 such experiences had substantially elevated odds (odds ratios, 1.8 and 4.9, respectively).
Similarly, the number of types of adverse experiences was tied to the likelihood of having had 30 or more sexual partners, rising from odds of 1.6 for those with one type of adverse experience and 1.9 for those with two to odds of 8.2 among those with 6-7.

Finally, the chances that a woman first had sex by age 15 also rose progressively with increasing numbers of such experiences, from odds of 1.8 among those with one type of adverse childhood experience to 7.0 among those with 6-7.
## ACE PRELIMINARY RESEARCH INDICATIONS

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<th>Number of ACEs</th>
<th>General Pop. Women n=17,000</th>
<th>General Pop. Men n=17,000</th>
<th>Betrayal Trauma Clinical Sample n=712</th>
<th>Sexual Addiction Clinical Sample n=517</th>
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<td>8.6</td>
<td>12.2</td>
<td>9.7</td>
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<tr>
<td>4 or More</td>
<td>15.2</td>
<td>9.2</td>
<td>26.4</td>
<td>18.5</td>
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</table>
70% had PTSD symptoms after discovering a partner’s sexual betrayal

STEFFANS AND RENNIE
In my research with a clinical sample between 62% reported all of the symptoms of PTSD, while 75-80% reported symptoms B, C, D, and E.

Work by researchers Aoife O’Donovan and Thomas Neylan compared the telomeres of people with PTSD with the telomeres of people in good mental health. What they found was that overall, those with PTSD had shorter telomeres than those in the control group. However, what was really interesting was that the people with PTSD who did not have early childhood adversity didn’t tend to have shorter telomeres.
The good news is that even if you have shortened telomeres, maintaining healthy telomeres can protect you from further shortening. How do you keep your telomeres healthy? One important way is by boosting levels of telomerase, which is an enzyme that can actually lengthen the telomere. Once again, the science is new, but it suggests that even if you start out with shorter-than-normal telomeres, you can still slow decline by increasing your telomerase with things like meditation and exercise.

Epel and Puterman then looked at each respondent’s telomere length. They found that while lifetime cumulative adversity significantly predicted telomere shortening, that shortening was due mostly to the adversity experienced in childhood; adult adversity on its own was not significantly associated with telomere shortening. For each childhood adversity a study participant experienced, his or her odds of having short telomeres increased by 11 percent.
Epel and Puterman’s data also showed that household adversities, such as abuse or having a parent who used alcohol or drugs, were a stronger predictor of telomere shortening than household financial stress.

Without the ability to inhibit defense responses, the nervous system is in a continual state of activated mobilization (hyperaroused) or immobilization (hypoaroused) survival strategies.
3. BEST PRACTICES WHEN ACE SCORES ARE HIGH

MENTAL HEALTH

SLEEP

HEALTHY RELATIONSHIPS

EXERCISE

NUTRITION

MINDFULNESS
Slowly but surely, we were building our toolkit of clinical interventions to combat the chronic stress..

When affect is dysregulated, we become dissociated (disintegrated) and reduced to automated processes and isolated portions of our memory. In other words, the organization of the self is affect state dependent.
Sleep, mental health, healthy relationships, exercise, nutrition, and mindfulness—we saw in our patients that these six things were critical for healing.

We saw in our patients that these six things were critical for healing. As important, the literature provided evidence of why these things were effective. Fundamentally, they all targeted the underlying biological mechanism—a dysregulated stress-response system and the neurologic, endocrine, and immune disruptions that ensued.
HEALTHY RELATIONSHIPS

EXERCISE
When affect is regulated, the organism is integrated and able to respond flexibly to the internal and external environments. We experience a sense of self-mastery, and indeed, when regulated we are optimally functional. When affect is dysregulated, we become dissociated (disintegrated) and reduced to automated processes and isolated portions of our memory. In other words, the organization of the self is affect state dependent.

AFFECT REGULATION THEORY PG 26
Emotional resiliency and tolerance are hallmarks of mental health. They allow us to maximize time spent in regulated-integrated states—alert, engaged, positively disposed, and able to respond contingently. Deficits in affect tolerance and resilience result in frequent and prolonged states of dysregulation-dissociation.

Secure attachment engenders affect tolerance and resiliency. This maximizes time spent in regulated states with access to the fullest range of our self-states.
The children categorized as insecure share difficulties with transitioning from dysregulated to regulated self-states.
THANK YOU!
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