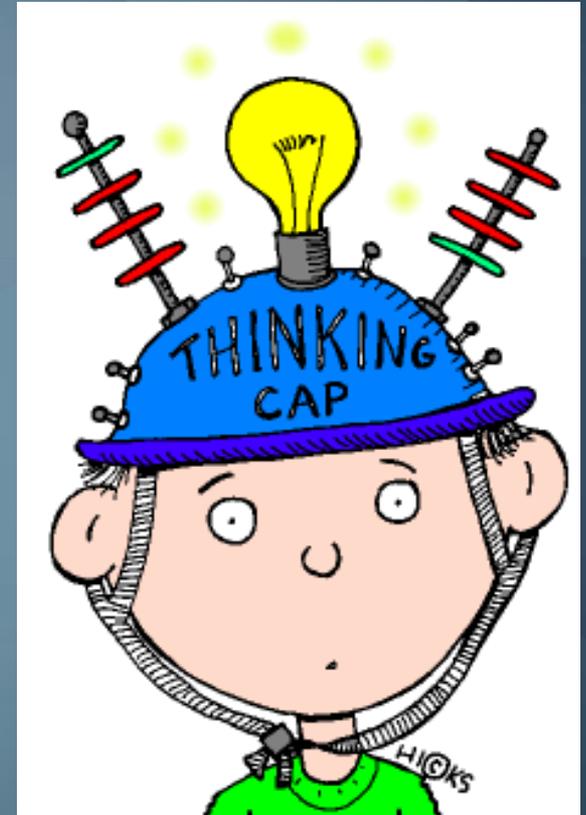


ZERO TO THREE: NATIONAL TRAINING INSTITUTE
CONNECTING SCIENCE, POLICY, AND PRACTICE

Presented by: Hillary Goldstein

Presentation Learning Targets

- To recognize the complexities of fatherhood and its impacts on a child's growth and development.
- To define toxic stress, the effects that it has on young children.



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**FATHER INVOLVEMENT: THE CONNECTION BETWEEN
PATERNAL ENGAGEMENT AND MENTAL HEALTH**

When you look at these photos;
what words or ideas come to your mind?



What are scientists are learning about fatherhood involvement?

- During a woman's pregnancy, a man's estrogen increases during the 3rd trimester and through the first 3 months of birth.
- Birth complications are lowered if the father is present.
- The father's vocabulary is the biggest predictor of a child's vocabulary.

Research Partnerships: Informing The Policy and Practice

- In 2009, Dr. Pruett and some of the nation's top family and child development researchers conducted a ground breaking study.
- Hosted from the “Supporting Father Involvement Program” this study is the **first randomized, controlled clinical trial** focusing on the benefits of parenting education.
- This intriguing study is changing the way scientists, policy makers, and educators understand the impacts of parental involvement.

Supporting Father Involvement Program: Study Specifics

- The study compared father- only and father- mother interventions with each other, and against a control group, and evaluated the impacts on parents and children.
- Highlights from the research include:
 - The behavioral and psychological involvement of fathers significantly increased when fathers were given the tools to be more effective parents alone or with the mothers.
 - Parenting stress decreased when fathers and mothers participated in the groups together.
 - The quality of relationships continued a year after the study was completed.

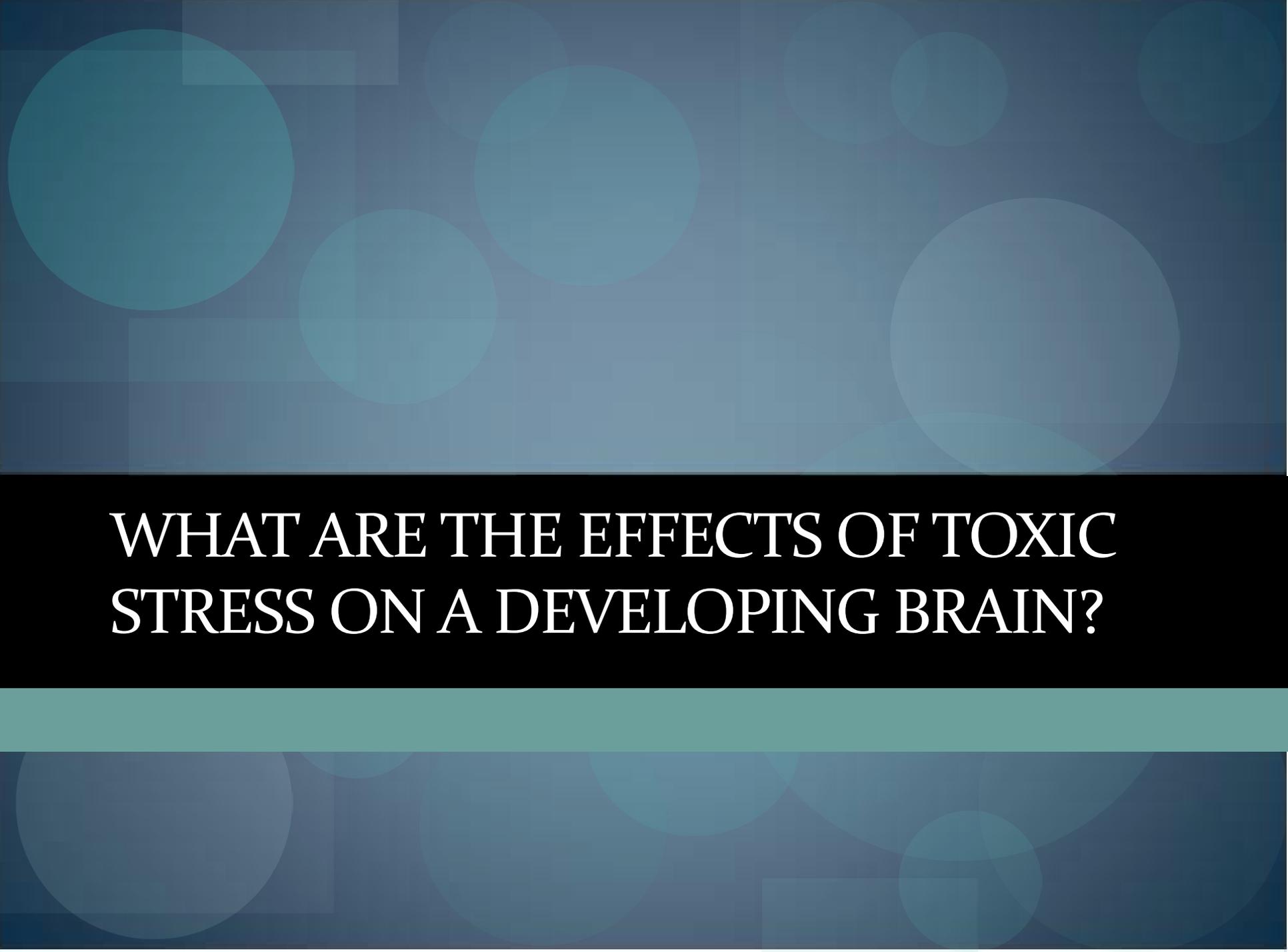
Father Involvement: The Connection Between Paternal Engagement and Mental Health

- Risk for child abuse and neglect will be reduced if...
 - Father's are satisfied in their role as a parent
 - Father's play with their children regularly
 - Father's consider how they were raised and how it influences their parenting
 - Both parents attend parenting education classes together regularly
- When parents enroll together in 16 week sessions to work on their relationships as parents and partners, their children were much less likely to show signs of depression, anxiety, and hyperactivity.

What does this data mean for the Yavapai Region and First Things First?

- Family Support Collaborative
 - Parenting Education Coalition
 - Intentional focus on recruiting fathers to participate in trainings
 - Home Visiting Coalition
 - Professional trainings hosted via coalition meetings that focus on father involvement during home visits.

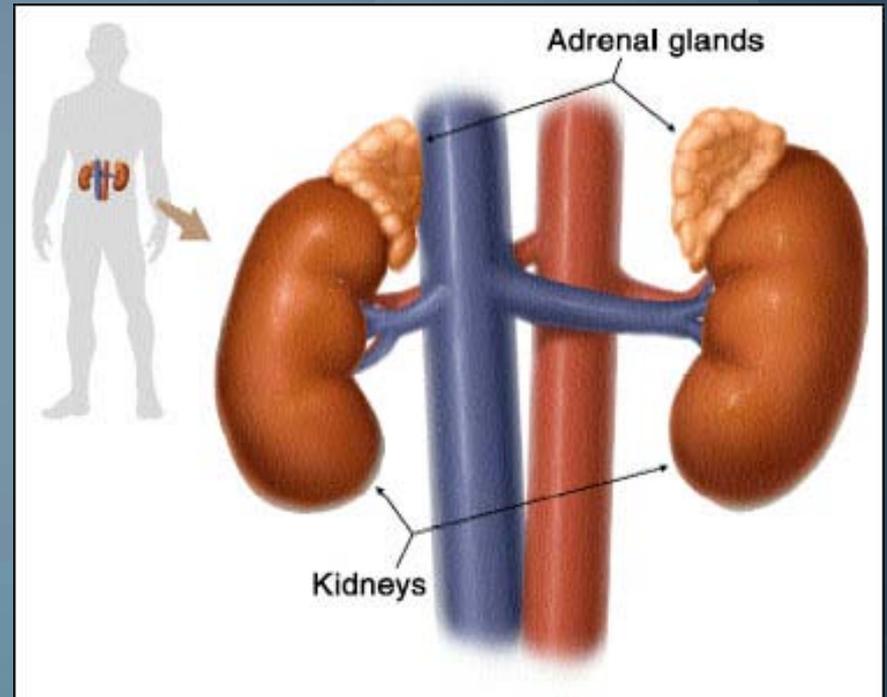


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WHAT ARE THE EFFECTS OF TOXIC STRESS ON A DEVELOPING BRAIN?

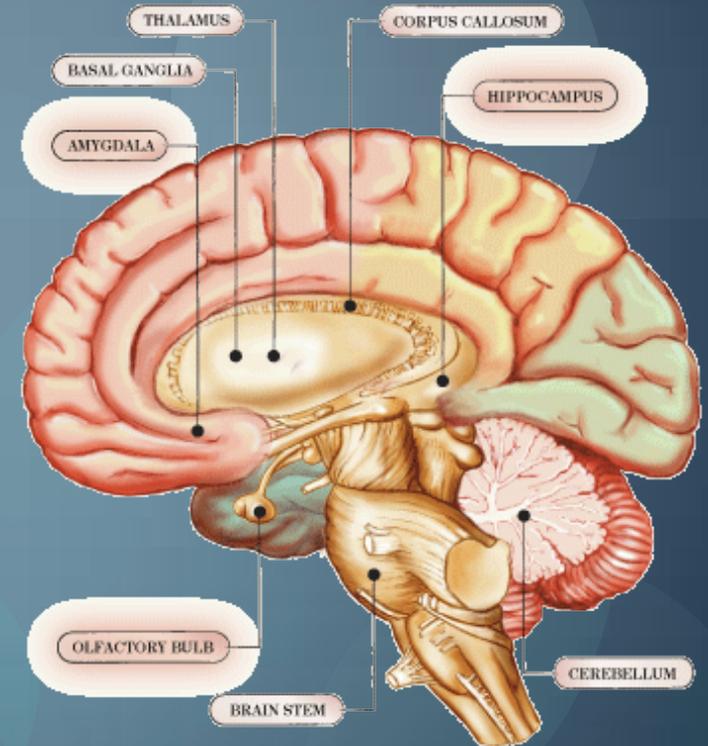
Cortisol And Stress Management

- Cortisol is a hormone secreted by the adrenal glands which are located above the kidney's.
- Cortisol helps the body manage stress and helps control the breakdown of fats and proteins to make sugars in the liver.



How Does Cortisol Affect A Developing Brain?

- Increased levels of cortisol within the Limbic system and Hippocampus can lead to neurotoxicity.
- Neurotoxicity is characterized as pervasive stress that causes significant impairment.
- High levels of cortisol in the brain can lead to wear and tear on organs, especially the hippocampus, hypothalamus, thalamus and the amygdala.



Important Aspects To Consider Regarding Stress And The Developing Brain

- At birth a child's nervous system is fully developed, however their brain is still developing.
- Children exposed to trauma at an early age are more at risk for uneven developmental pruning within the brain. This can lead to limited function and difficulty learning.
- In addition, toxic stress influences the possibility of having Post Traumatic Stress Disorder, a potentially debilitating anxiety condition.

High Levels Of Cortisol: Childhood PTSD

Normal Stress

(Fight or Flight)

Emotionally Costly Stress

(Cortisol is consistently released. Negative effects begin to take effect)

Toxic Stress

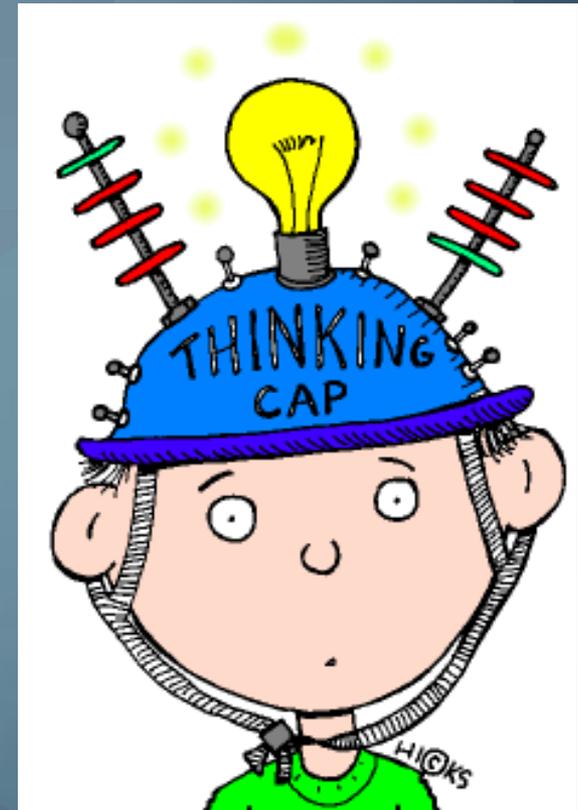
(The body is no longer able to process stress appropriately. Organ injury can begin)

What does this data mean for the Yavapai Region and First Things First?

- Continued focus in supporting:
 - Home Visitation Programs
 - Improving parenting skills, child health and family success for at-risk families
 - Court Teams
 - Improving the child welfare system through service coordination and implementation
 - Parenting Education
 - Increasing parenting skills through provision of research- based parenting education programs

What have we learned?

- A father's involvement is significant to the growth and development of their child.
 - Parenting education classes for fathers would be a positive asset for the Yavapai Regional area.
- Excess cortisol can lead of toxic stress and impaired brain function.
 - There should be a continued focus on supporting Home Visitation Programs, Court Teams, and Parenting Education Classes



References Used Throughout The Presentation

- <http://www.webmd.com/a-to-z-guides/cortisol-14668?page=2>
 - Research on cortisol
- <http://www.zerotothree.org/about-us/areas-of-expertise/nti/highlights-from-the-25th-nti.html>
 - Keynote speaker presentations
- <http://faculty.washington.edu/chudler/nsdivide.html>
 - Information on the limbic system
- <http://serendip.brynmawr.edu/bb/kinser/Structure1.html#limbic>
 - Information of the limbic system

Important Websites From The Zero To Three Conference

- <http://www.zerotothree.org/>
 - Connecting research, policy and practice
- <http://www.zerotothree.org/about-us/areas-of-expertise/nti/highlights-from-the-25th-nti.html#opening>
 - The website link including clips from the national conference
- www.pedialink.org
 - Take a FREE online class and learn how to recognize signs of motor delay and provide proper interventions for the best possible outcome.
- www.fatherhood.gov
 - Resources to support fatherhood
- <http://www.supportingfatherinvolvement.org/>
 - National clinical studies determine that a fathers role in raising child is critical