

IMPACT OF ADVERSITY/TRAUMA ON BRAIN AND BIOLOGY

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Group 6

OBJECTIVES

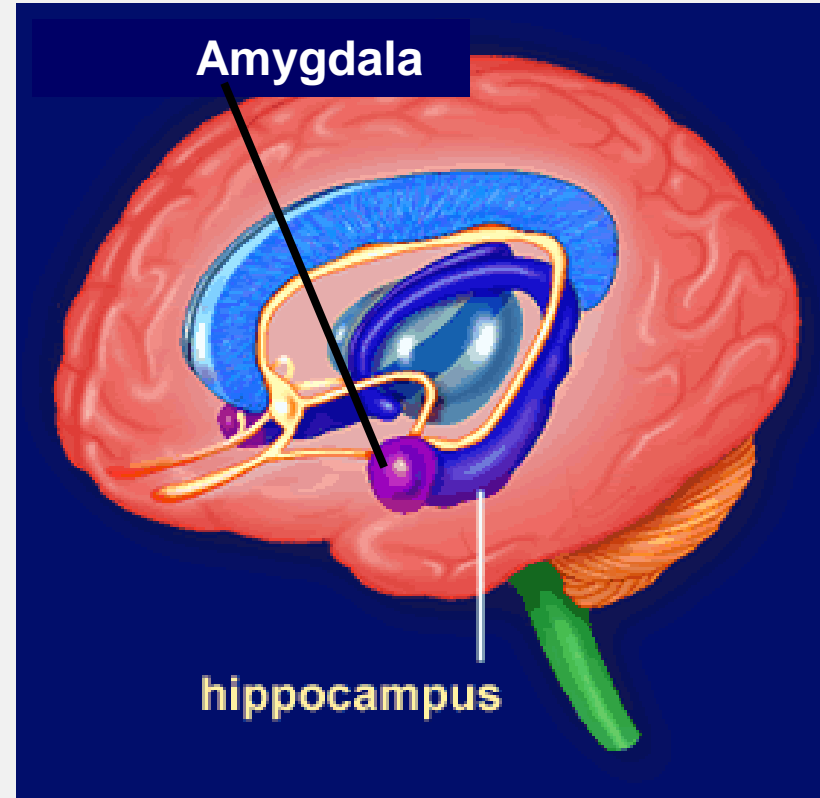
- Learn about brain basics
- Learn about the impact of trauma on the brain & development
- Learn about the brain's response to stress and traumatic experiences
- Understand the nervous system

BRAIN BASICS

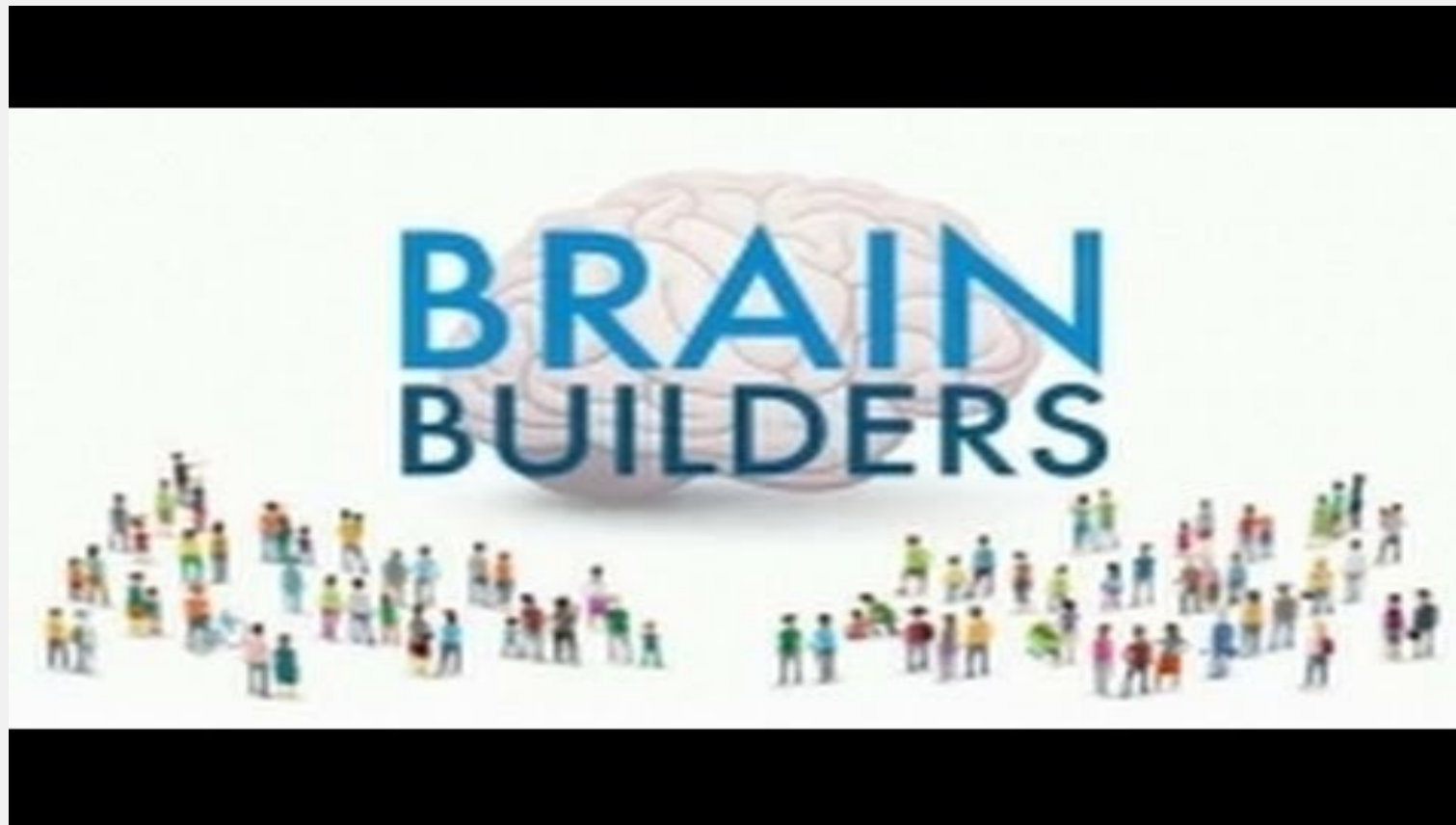
- The Amazing Brain- Page 3: Understanding the Building Blocks of My Brain
 - Linda Burgess Chamberlain, PhD, MPH
- The rest of the booklet can be used as a resource for parents to assist with healthy development.

The Limbic Area: Amygdala

- ❖ The amygdala is the appraisal system of the brain.
 - ❖ Signals rest of nervous system when there is a threat
 - ❖ It creates templates from highly charged emotional memories
 - ❖ Positive memories
 - ❖ Negative memories



HOW BRAINS ARE BUILT



ELEPHANT

BICYCLE

GARDEN

ALLIGATOR

AUTOMOBILE

RAILROAD



MOUNTAIN



TELEPHONE



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SATISFACTORY



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FOUNDATION

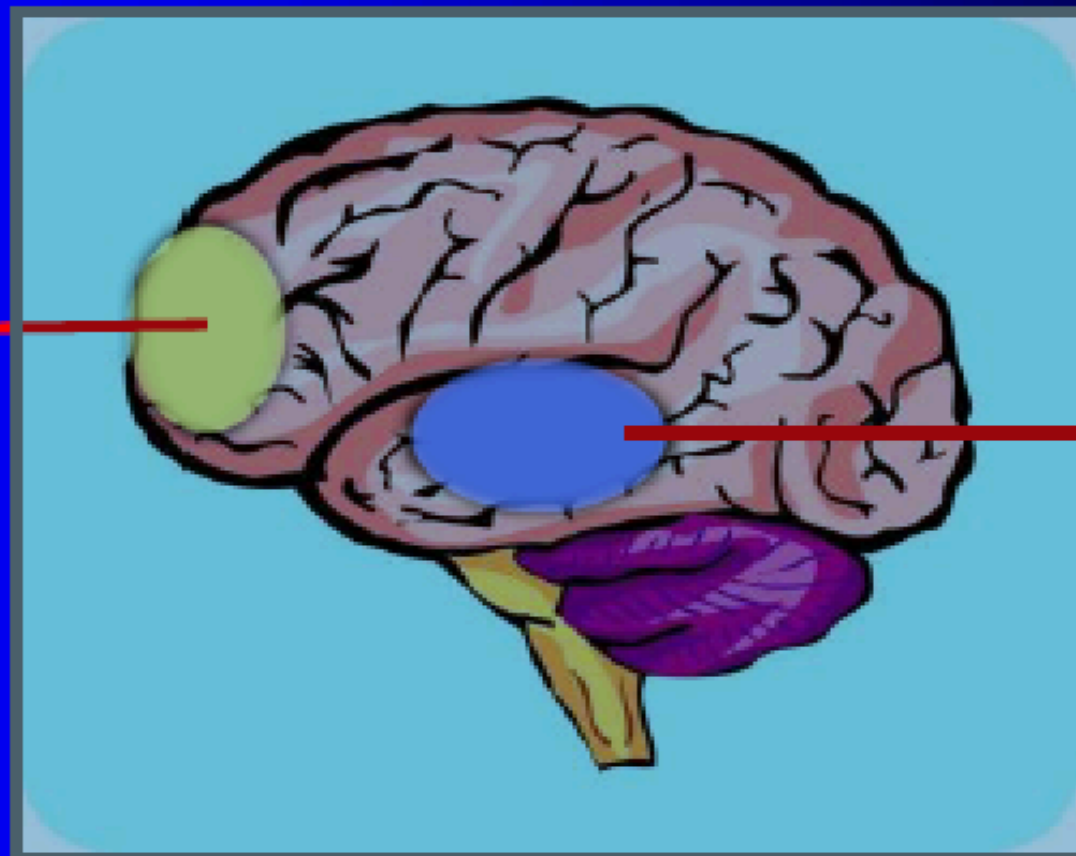


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Survival Mode: Fight/Flight/Freeze

Frontal lobe (prefrontal cortex) goes offline
Limbic system / mid and lower brain functions take over

**Learning/
Thinking
Brain**
(Prefrontal
Cortex)



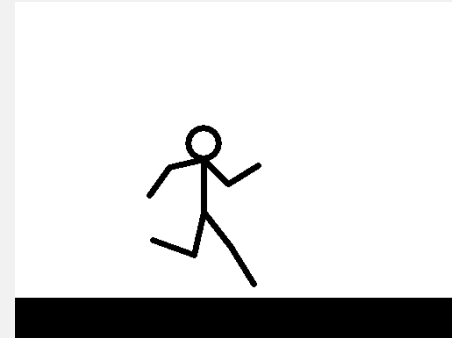
**Survival/
Emotion
Brain**
(Limbic
System)

SURVIVAL RESPONSES

- FIGHT



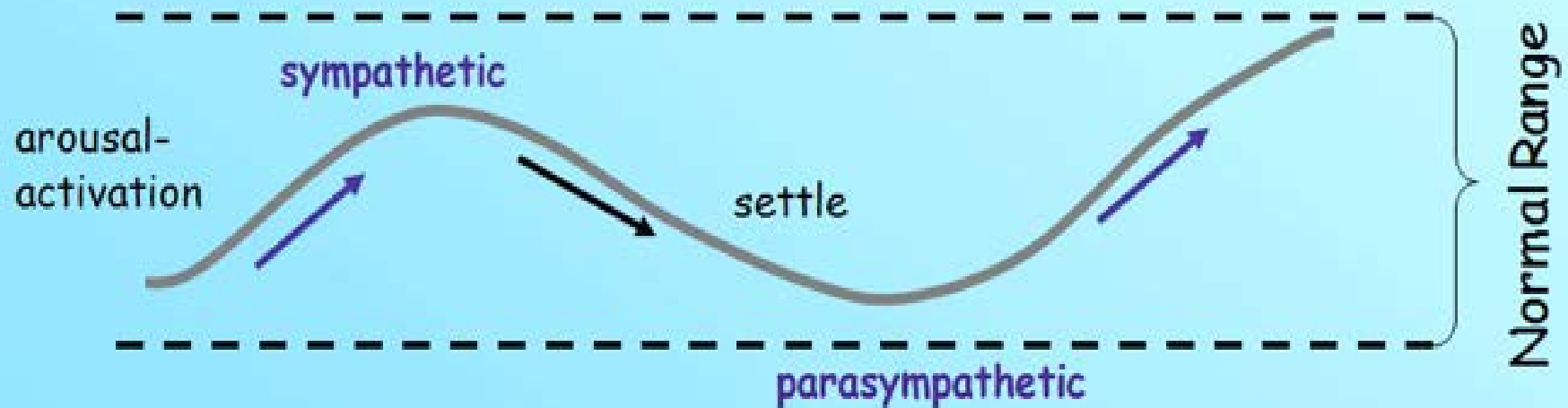
- FLIGHT



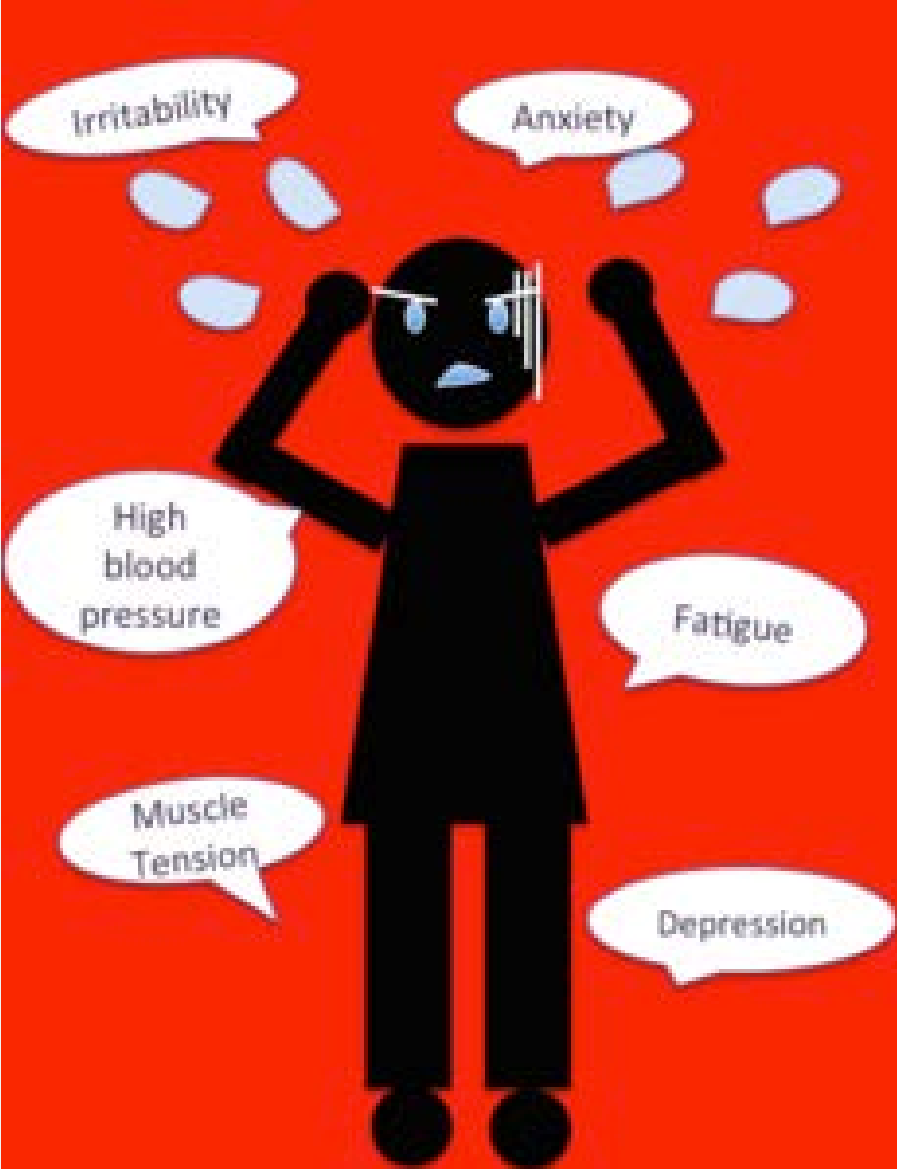
- FREEZE



THE NERVOUS SYSTEM

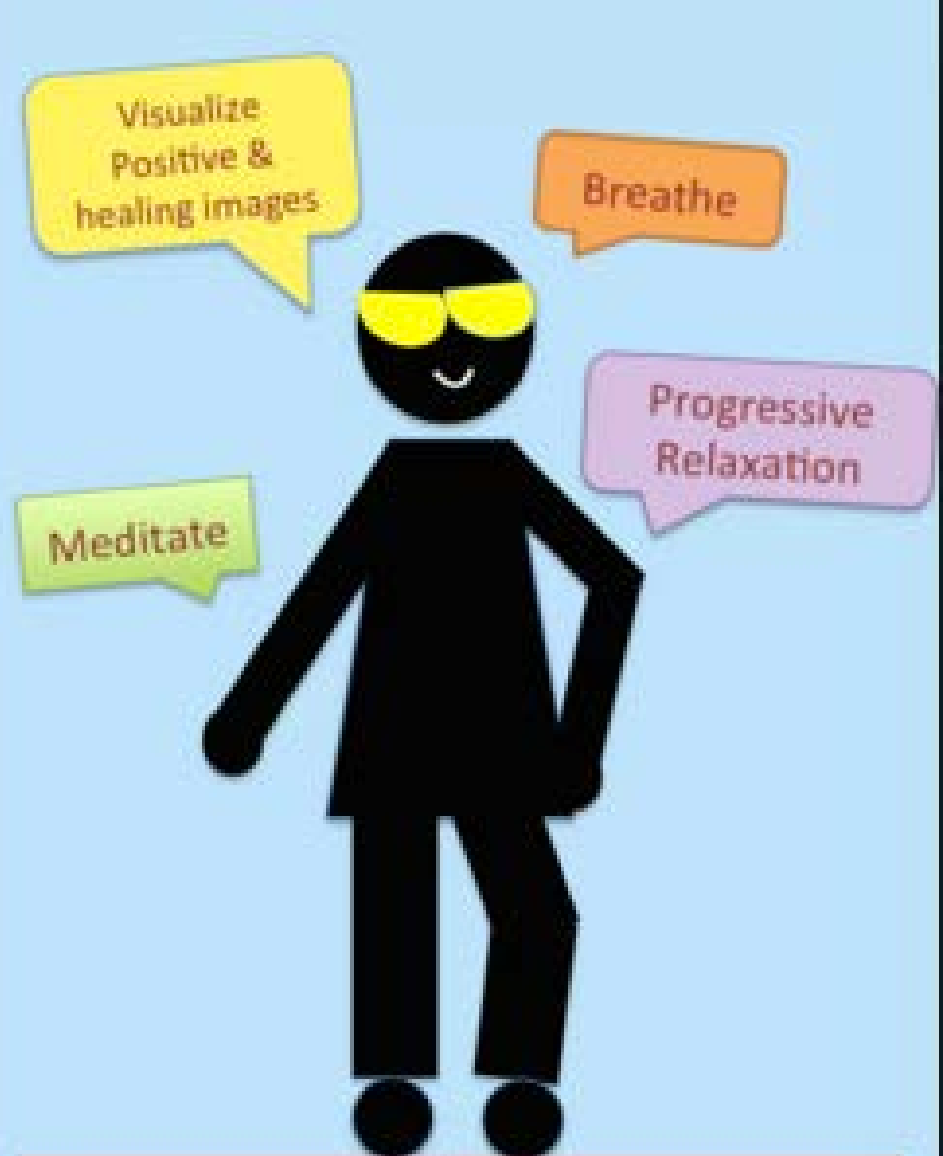


From Peter Levine's Somatic Experiencing work and Dan Siegel's concept of the window of tolerance.



{SYMPATHETIC NERVOUS SYSTEM}

Activated from threatening stressors



{PARASYMPATHETIC NERVOUS SYSTEM}

Activates the Relaxation response

QUESTIONS?