

Understanding and Recognizing Brain States

| Part of the Brain | Brain State Responses | Options & Challenges | Regulatory Suggestions |
|-------------------|------------------------------------|--|--|
| Cortex | Safe | Many behavioral and cognitive options are available | Instructive breathing and other explicit teaching (self-regulation skills) |
| Cortex | Alert | BEHAVIORAL CHALLENGES: Engaging in something new or challenging COGNITIVE CHALLENGES: Creativity Spotlight focus | Reassurance Connection Information about what to expect |
| Limbic | Alarm | BEHAVIORAL CHALLENGES: RELATIONAL Managing emotions Attunement or empathy Sharing and forming relationships COGNITIVE CHALLENGES: Short term memory/learning Look like I'm processing much more than I actually am, don't be fooled! | One on one support/ Proximity to attuned adult Caring prosody and tone of voice Parallel interactions (not face to face) Modeling regulatory behavior not telling Smaller and slower movements Do something together that isn't challenging |
| Midbrain | Fear (Looks like anger) | BEHAVIORAL CHALLENGES: MOTOR, SENSORY & REGULATORY Large and fine motor skills Tendency towards sensory seeking or avoiding Impulsivity COGNITIVE CHALLENGES: Attention – tendency towards daydreaming Transition, Processing input accurately | Rhythmic movement or sounds Slow controlled large muscle movements Proprioceptive input and Isometrics (chair push-ups) Walk/Run/Exercise Bilateral movement Creative arts, Music, Drumming, Dance Doodling (you remember 60% more) Hold yoga ball against wall with your back |
| Brainstem | Terror (Looks like rage) | BEHAVIORAL CHALLENGES: SELF-GOVERNING ISSUES Shifting attention Abnormal body temperature, eye blink or movements Skin sensitivities Need to have something in mouth or chew gum. COGNITIVE CHALLENGES: Not able to take in any information | Reduce sensory stimulation, few words Rhythmic patterned input (things we do with babies) Swinging or Rocking (rocking chairs) Bouncing (yoga ball, bouncy chairs) Balance Slow stretching or Yoga Chewing/Sucking (chew stixx, pencil topper chews) Calming pictures or scents |

| Part of the Brain | Cognitive Ability | Functional IQ | Heart Rate | Sense of Time | Sphere of Concern |
|-------------------|----------------------|---------------|------------|-----------------------|-----------------------|
| Cortex | Think Abstractly | 110-100 | 70-90 | Future | World |
| Cortex | Think Concretely | 100-90 | 90-100 | Week or Day | Community |
| Limbic | Responds Emotionally | 90-80 | 101-110 | Hours or Minutes | Family or Close Peers |
| Midbrain | More Reactive | 80-70 | 111-135 | Minutes or Seconds | Self |
| Brainstem | More Reflexive | 70-60 | 136-160 | Loss of Sense of Time | Body Integrity |

***CAN THEY PROCESS THE INFORMATION?**