



**WORKING WITH YOUTH EXPOSED TO POLYSUBSTANCES**

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Polysubstance use may include, but is not limited to, combinations of:

- ❖ nicotine
- ❖ alcohol
- ❖ marijuana
- ❖ opiates
- ❖ methamphetamine
- ❖ cocaine
- ❖ heroin
- ❖ synthetics




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**Exposure to Poly-substances during pregnancy/infancy or extreme stress, neglect, abuse, and/or trauma changes the developing brain of the child.**

- The brain stem is over-activated: leading to magnified fear and/or anger response.
- The cerebellum & limbic system is under-activated: leading to withering of emotional control.
- The cortex is under-activated: leading to diminished learning, memory, and higher order thinking.
  - Downshifting- under threat and stress, the brain shuts down layer by layer-
    - "Go Reptilian!"




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**Polysubstance Use Affects More Than Pregnancy**

- Egg
- Sperm
- In-utero
- Environmental Exposure
- Lifestyle & Parenting
- Nutrition
- Medical
- Dietary
- Attachment
- Self-Regulation
- Executive Functioning
- Developmental Skills




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### Effects on Brain and Central Nervous System Development:

- Disruption in migration of cells-movement along branches
  - Shorter dendrites-difficulty carrying information
- Reduced myelin insulating the neurons-slower information processing and less white matter
  - Impaired cell survival



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### Observations of Children in Psychiatric Residential Treatment who are likely polysubstance exposed

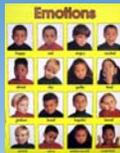
1. Non-categorical delays: across many life domains
2. Autism-like symptoms: communication, socialization, behavior
3. Psychotic symptoms: disorganized thinking, personality changes, limited insight, social impairments
4. Childhood schizophrenia symptoms: auditory/visual hallucinations, paranoia, delusions, bizarre behavior
5. "Children with no skin!"
6. "FAS on steroids!"



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### Polysubstance Exposure Impacts:

- Working Memory and Information processing
  - Provide extra processing time
  - Offer visual cues/multisensory learning
- Face-emotion labeling
  - Requires direct instruction, repetition & overlearning
  - Prerequisite for empathy skills
- Focus/attention in emotional situations
  - Use coping/calming techniques before presenting verbal information or directives



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### POLYSUBSTANCE EXPOSURE IS CHARACTERIZED BY LONG RANGE UNDER-CONNECTIVITY

- Impacts integration of skills important for language, social skills, and sensory-motor.
- Impacts frontal lobe executive functions:
  - Working memory
  - Planning and organization
  - Self-regulation
  - Perspective taking
  - Empathy and compassion

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### THE BRAIN BENEFITS OF EXERCISE

- INCREASES PRODUCTION OF NEUROCHEMICALS THAT PROMOTE BRAIN CELL REPAIR
- IMPROVES MEMORY
- LENGTHENS ATTENTION SPAN
- BOOSTS DECISION-MAKING SKILLS
- PROMPTS GROWTH OF NEW NERVE CELLS AND BLOOD VESSELS
- IMPROVES MULTI-TASKING AND PLANNING



- HOOK UPS
- CROSS LATERAL MARCH
- RHYTHMIC CLAPPING
- JUMPING JACKS
- FULL BODY BREATHING
- WALKING OUTSIDE
- SWINGING ON SWINGS
- RIDING BIKE
- DANCING
- CLIMBING STAIRS
- PLAYING CATCH OR FRISBEE

Men's Health

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Processing Coping Skills are designed to help you work through thoughts and feelings you have about challenging situations. Some suggestions:

- Make a coping box
- Write poetry
- Use a journal
- Use a feelings thermometer
- Create a playlist to listen to



copingskillsforkids.com

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### SOCIAL EMOTIONAL LEARNING COMPETENCIES NDMTSS

<http://www.ndmtss.org/wp-content/uploads/2019/06/39545-6-1-18-Compiled-NDMTSS-SEL-Scales.pdf>



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*CLOSING THOUGHTS*

**“This isn’t something else on the plate; this *is* our plate. Once you get the plate established, everything else flourishes.”**

Rennie Center on Education Research & Policy



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