

Practical Ideas for
Play for your Child
with Fragile X
Syndrome





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WHY PLAY?



PLAY HELPS WITH:

- Social Development
- Develop impulse control
- Reduces Stress
- Improves concentration, attention span and memory
- With physical development
- With Emotional regulation
- Promotes language and literacy



PHYSICAL PLAY CAN ACTIVATE THE BRAIN AND BODY

- The amygdala-
-which process emotions
- The cerebellum-
-which handles complex motor skills
- The pre-frontal cortex-
-which makes high-level judgments



An enriched play environment is critical to a child's development and teaches skills he will use later in life.





PLAY

- Active play helps stimulate neuron growth within the cortex and hippocampus.
- Vital to higher learning, memory, and language and logic



ACTIVE PLAY MAKES US SMARTER

Activates various areas in the brain, including pathways for motor coordination, creativity, and emotional attachment.



- During play we are more prone to behave in flexible and creative ways.



Play helps to re-wire the neural networks for attention span, motivation, persistence and reasoning



FLEXIBILITY

- Physical play helps us to cope with the unpredictable.
- Learning to cope with the unpredictable helps the brain be more behaviorally flexible and increases learning capacities.



REGULATION

- In physical play both the child and adult practice revving up and calming down,
- Which helps the child learn how to manage strong emotions, and sensory regulation.



Sensory message → interprets → organizes → response



EFFECTIVE SENSORY INTEGRATION

- Interact with the environment effectively
- Experience success and satisfaction while interacting with the environment



AROUSAL REFERS TO THE LEVEL OF ALERTNESS

- Each person's nervous system functions within an "optimal range of arousal"
- This is the range within which most everyday tasks might occur
- High arousal vs. low arousal?



Individuals with Fragile X syndrome have many challenges maintaining an optimal level of arousal, typically in a state of hyperarousal.



OPTIMAL AROUSAL

- Activities should be purposeful and motivating (playful)
- Match the activity with the skill level
- Interactive (for social and reciprocity)



OPTIMAL AROUSAL



PLAY AND NONVERBAL COMMUNICATION

- Physical play uses nonverbal communication for joint connection
- Eye contact/visual referencing occurs which is a great way to build co-regulation, caring for others and coordinating the eyes and the body together for visual skills including reading.



When play circuits of
mammalian brains are
activated, especially by
roughhousing, the result
is JOY!

Research taken from Panksepp



MAKING PLAY FUN

- Play is not only serious business but also fun.
- Animals get deep joy and pleasure from playing alone or with friends.



DIR

Developmental – skill levels in all areas

Individual Differences – interests, sensory processing abilities

Relationship-based Approach – builds foundations in social-emotional skills and interactions

A comprehensive, interdisciplinary approach that focuses on the emotional development of the child



FLOORTIME:

- A treatment method and a philosophy for interacting with children
- Floortime involves time playing and interacting with children in ways that:
 - meet the child at his/her current developmental level
 - tune into his/her interests and desires in interactions
 - follow his/her lead
 - build upon his/her strengths and interests
 - increase the child's motivation to interact in purposeful ways
 - woo him/her with warm yet persistent attempts to engage and keep his/her attention
 - help him/her develop long chains of meaningful interactions




LEARNING CHARACTERISTICS WITH FRAGILE X AND FLOORTIME BENEFITS

- **Hyperarousal** – the individualized approach focuses on engaging and relating; can promote levels of arousal that facilitate learning and interacting; focus on self-regulation as the core foundation skill; on-going sensory support
- **Visual learners** – hands-on, interactive learning
- **Incidental learners** – Floortime activities are naturalistic and provide opportunities for incidental learning as well as problem-solving
- **Strong memory** – when Floortime activities involve turn-taking routines and themes, the child may want to repeat and expand upon these
- **Use of movement and rhythm** – a variety of sensory and music/rhythm opportunities can be presented
- **Simultaneous vs. sequential learning** – holistic, multi-sensory learning
- **Sense of humor/Love of the dramatic** – dramatic play builds on an area of strength to help the child develop social-emotional, thinking and language skills and physical-sensory skills differences



6 DEVELOPMENTAL LEVELS AND FRAGILE X

- 1 **Being calm and interested in all the sensations of the world;** shared attention and regulation – addresses core differences in self-regulation and hyperarousal
 - 2 **Falling in Love;** engaging and relating; sense of intimacy and relationships – focuses on joy as a motivating force in helping children engage and relate
 - 3 **Becoming an intentional 2-way communicator;** purposeful emotional interactions; promotes co-regulated social communication
 - 4 **Learning to interact to solve problems and discover a sense of self;** long chains of back-and-forth meaningful interactions - promotes creative, flexible problem-solving; maximizes incidental learning
 - 5 **Creating ideas;** meaningful use of words and interactive pretend play – builds on love of humor and dramatic themes to teach higher level thinking, problem-solving and relating skills
 - 6 **Building bridges between ideas;** logical connections between meaningful ideas – challenges the child to connect his/her ideas together by seeking his/her opinions and enlarging pretend play
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TOYS AND EQUIPMENT

- Keep it simple, active or electronic toys make kids sit back and be entertained.
- When the toy is simple, a child is forced to be creative, dynamic and engaged which promotes development



Blocks-

Promote fine and gross motor skills

Bubbles-

Promote eye development and visual tracking

Dolls-

Promote social-dramatic and pretend play

Boxes-

Promote imagination and creativity

Bowls-

Promote auditory stimulation and cause and effect



EXPLORING THROUGH PLAY



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THANK YOU TO THE FAMILIES THAT
SHARED THEIR JOURNEY WITH
US....

